



ZRTI/MLY



COMPREHENSIVE GUIDE FOR STATION MASTERS



SOUTH CENTRAL RAILWAY SECUNDERABAD

DISCLAIMER

This Guide is compiled by the Faculty of ZRTI/MLY for guidance and easy understanding. It is to be read in conjunction with G&SR, Block Working Manuals, Accident Manual, Disaster Management Plan, Operating Mannual, Amendment slips, JPO's, Working Time-Table and Safety related Circulars issued from time to time. Though the sufficient care and precaution has been taken while preparing this material, wherever any conflicting opinion occurs, presentation in the rule books prevails over this material.

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OPERATING STUDY MATERIAL

Important definitions

Authorised officer

means the person who is duly empowered by general or special order of the Railway Administration, either by name or by virtue of his office, to issue instructions or to do any other thing.(G.R.1.02(5))

SR 1.02.5. The Chief Operations Manager is the authorized officer and is empowered to issue, amend or alter subsidiary rules.

1. Authorised Officer is a person empowered by Railway Administration by General or Special order.
2. Railway administration has given power either to a particular person or particular Post.
3. At present COM (chief operations manager) is the authorised officer of South Central Railway.
4. He is authorized to issue subsidiary rules and special instructions depending on the situation and necessity

Fouling Mark

means the mark at which the infringement of fixed standard dimensions occurs, where two lines cross or join one another. (G.R.1.02 (22))

1. Fouling mark is distinctly visible and difficult to remove.
2. This is fixed at the point at which the spacing between the tracks, begin to reduce to less than the minimum standard dimensions.
3. It is a white painted concrete/stone with flat top placed at ballast level. Starter signals also may be used as fouling mark.
4. Number of vehicles that can be accommodated on the line will be painted on this board.
5. Whenever train stops on a line guard and loco pilot shall ensure that train stands within this mark.

Block section

means that portion of the running line between two block stations on to which no running train may enter until Line Clear has been received from the block station at the other end of the block section. (G.R.1.02 (10))

1. Block section is a portion of the running line between two block stations
2. No running train may be permitted until line clear is obtained..
3. Block section lies between two block stations.
4. Normally only one train is permitted in block section.

5. Block section shall not be obstructed for shunting or any other purpose without consent of other end station master.
6. Limits of block section between every two stations shall be marked separately in SWR.

Line clear

means the permission given from a block station to a block station in rear for a train to leave the latter and approach the former; or the permission obtained by a block station from a block station in advance for a train to leave the former and proceed towards the latter; (G.R.1.02(36))

1. It is the permission given by the SM for a train to leave a station.
2. It is the permission given to the rear SM for train to leave that station and come to his station. Or
3. It is the permission taken from the station in advance for train to leave his station and go to advance station

Station

means any place on a line of railway at which traffic is dealt with, or at which an authority to proceed is given under the system of working. (G.R.1.02 (51))

Obstruction

Obstruction and its cognate expressions include a train, vehicle or obstacle on or fouling a line, or any condition which is dangerous to trains. (G.R.1.02 (43))

1. While dispatching/receiving a train into/from block section, it is must to ensure that line is free from any condition that is unsafe to train.
2. A section of track already occupied with a train, big stones on track, rail breakage, floods, trees fallen on track, level crossing gates in open condition etc., are some of the examples of obstructions
3. In such occasions, generally trains shall not be dispatched without extra precautions.

Authority to proceed

means the authority given to the Loco Pilot of a train, under the system of working, to enter the block section with his train. (G.R.1.02 (6))

1. It is the authority given to the Loco Pilot of a train, under the system of working, to enter the block section with his train.
2. It is an important document for loco pilot. He should not start his train without possessing ATP.
3. It may be taking off last stop signal (single line token less and double line sections) or token (single line token sections) or a written document.
4. Loco pilot must ensure that correct authority to proceed is issued to him.

Train

means an engine with or without vehicles attached, or any self-propelled vehicle with or without a trailer which cannot be readily lifted off the track. (G.R.1.02(58))

Block forward

means to dispatch a message from a block station on double line intimating to the block station immediately in advance the fact that the block section in advance is obstructed or is to be obstructed. (G.R.1.02 (9))

1. It is a message given, obtaining permission for shunting in block section.
2. It is given only on double line.
3. Message given for performing shunting beyond advance starter in right direction when there is no train in the section upto advance station.
4. Message given for performing shunting beyond LSS after clearance of the train in the next station.

Fixed Signal

means a signal of fixed location indicating a condition affecting the movement of a train and includes a semaphore arm or disc or fixed light for use by day and fixed light for use by night. (G.R.1.02 (21))

1. It indicates the condition in different positions for controlling the movement of trains
2. There are many types of fixed signals like Permissive signals, stop signals, subsidiary signals and duplicate signals. Their place is fixed.
3. They are designed to use during both day and night.
4. Fixed signals when fixed must be visible to loco pilots.
5. They are fixed on left side of track generally.

Station Master

means the person on duty who is for the time being responsible for the working of the traffic within station limits and includes any person who is for the time being in independent charge of the working of any signals and responsible for the working of trains under the system of working in force. (G.R.1.02 (53))

Interlocking

means an arrangement of signals, points and other appliances, operated from a panel or lever frame, so interconnected by mechanical locking or electrical locking or both that their operation must take place in proper sequence to ensure safety. (G.R.1.02 (29))

1. It is an arrangement of signals, points and other appliances,

2. These may be operated by panel or lever frame.
3. They are interlocked with each other by mechanical locking or electrical locking or both,.
4. Their operation takes place in a sequence such that safety is completely ensured for trains.

Shunting

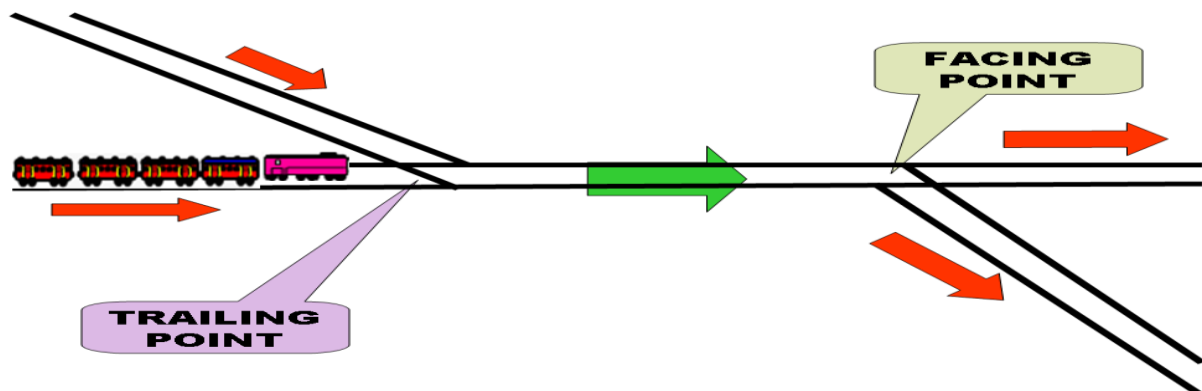
means the movement of a vehicle or vehicles with or without an engine or of any engine or any other self-propelled vehicle, for the purpose of attaching, detaching or transfer or for any other purpose. (G.R.1.02(49))

System of Working

means the system adopted for the time being for the working of trains on any portion of a railway. (G.R.1.02(56))

Facing and Trailing Points

points are facing or trailing in accordance with the direction a train or vehicle moves over them. Points are said to be facing points when by their operation a train approaching them can be directly diverted from the line upon which it is running. (G.R.1.02(20))



1. Points are connections between lines. They are used to divert the train from one line to other with either mechanical or electrical operation. Generally points have two ends
2. Points are said to be facing which when operated, can divert the movement of train from one line to other.
3. Points are said to be trailing which when operated do guide the movement of train that were diverted by facing points.
4. So points become facing or trailing depending on the direction of train over which they pass

Running Train

means a train which has started under an authority to proceed and has not completed its journey. (G.R.1.02(48))

Isolation

means an arrangement, secured by the setting of points or other approved means, to protect the line so isolated from the danger of obstruction from other connected line or lines. (G.R.1.02(32))

Running Line

means the line governed by one or more signals and includes connections, if any, used by a train when entering or leaving a station or when passing through a station or between stations. (G.R.1.02(47))

Differences between General and subsidiary rules (Preface of G&SR)

S.No	General rules	Subsidiary rules
1	These rules are framed by Railway Board	These rules are issued by the Authorised Officer (COM in SCR)
2.	These are framed under section 198 of the Indian Railway Act 1989 and have received the sanction of the Govt. of India	These rules are issued on the authority of G.R. 1.02(5) by the GM under the provisions of General Rules
3.	These are applicable to all Zonal Railways	These are applicable to particular Zonal railway only
4.	GRs can be revised or amended by the Railway Board	SRs can be amended by Authorised officer
5.	GRs are printed in bold letters	SRs are printed in small letters
6.	They are numbered in such a way that the first digit indicates number of chapter and other digits indicate number of rule	These are given under GR with same number prefixed by SR

Differences between facing point and trailing point(G.R.1.02(20),App XI 1.3)

S.No.	Facing point	Trailing point
1	Points are said to be facing when by their operation a train approaching them can be directly diverted from the line upon which it is running	Trailing point cannot divert the trains direction
2.	Facilitates diverging movements	Facilitates converging movements

3.	Locking is essential before permitting a movement over them	Locking is not essential (except motor operated points)
4.	Speed over the M/L facing point depends on the type of interlocking	Speed over the M/L trailing points is not prescribed
5.	Trains pass from toe end	Trains pass from heel end

Differences between block stations and non-block stations.(G.R.1.02(52),1.03 (2),(3),S.R.4.35(4,5))

S.No.	Block station	Non block station
1	Authority to proceed is given to LPs	Authority to Proceed is not given
2.	Signals are provided	Signals are not provided
3.	SM shall manage the station	CC/Contractor will manage the station
4.	SM/ASM shall work round the clock.	CC/ contractor may work for round the clock or specified periods only.
5.	Station staff shall exchange all right signals.	Exchange of all right signals is not required.
6.	Station limits are between two outer most signals.	Station limits are between platform ends.
7.	All trains shall stop at station when signal is at 'ON' or as per WTT.	Trains shall stop and start according to Working Time Table.
8.	As per Absolute Block System these are classified as 'A' 'B' 'C' and Special class stations.	These stations are also known as 'D' class station.
9	Permission to start by SM for passenger trains is required.	Permission to start by SM is not required

Classification of stations (G.R/S.R.1.03)

- Stations are broadly classified into Block Stations and Non-Block stations.
- Block stations are those at which the Loco Pilot must obtain an authority to proceed under the system of working to enter the block section with his train.
- Under the Absolute Block System consist of four classes of Block Stations.

Class 'A' stations: - where Line Clear may not be given for a train unless the line on which it is intended to receive the train is clear for at least 400 meters beyond the Home signal, or up to the starter.

Class 'B' stations: - where Line Clear may be given for a train before the line has been cleared for the reception of the train within the station section.

Class 'C' stations: - Block huts; where line clear may not be given for a train unless the whole of the last preceding train has passed complete at least 400 meters beyond the Home signal, and is continuing its journey. This will also include an Intermediate Block Post.

- Any station which can not be worked as class 'A' or; 'B' or 'C' is classified as **"Special Class"**
- Non Block stations or Class 'D' stations are stopping places which are situated between two consecutive block stations, and do not form the boundary of any block section
- S.R. 1.03 the classification of a station shall be mentioned in the SWR of that station and also in the Working Time Table (WTT)

Minimum equipment of fixed signals ;(G.R.3.27 &3.29)

- 1) MAS
 - a. at class 'B' - a Distant, a Home and a Starter. (Single and double line)
 - b. at class 'C' - a Distant and a Home (single and double line).
 - 2) TAS
 - a. at class 'A' - a Warner, a Home and a Starter.
 - b. at class 'B' -
 - 1) On Single line - an Outer and a Home.
 - 2) On a Double line - an Outer, a Home and a Starter.

Both on S/L and D/L Warner shall be provided if trains run through at speed exceeding 50 kmph.
 - c. at class 'C' - a Warner and a Home .
- In addition, other signals shall be provided at every station as may be necessary.

Adequate Distance (G.R.1.02 (2), G.R. 8.01, 3.40)

Adequate distance means the distance sufficient to ensure safety. It is of two types.

1. Block over lap 2.Signal over lap.

1. **Block over lap:** It is an adequate distance that has to be kept clear beyond FSS before granting line clear (TAS - NLT 400 Mtrs and MAS: NLT180 mtrs).

- In MAS Double line Block over lap is from Home signal to BSLB/Outer most facing point
- In MAS on single line block over lap is between Home signal and Opposite Advanced starter/SLB or outer most facing points.
- 2. Signal over lap: It is an adequate distance that has to be kept clear before taking off
Home signal. It is reckoned from trailing points on S/L and from Starter on D/L (TAS- NLT180 Mts. MAS- NLT120 Mts.)
- In MAS double line between Starter and Advanced starter
- On single line MAS between trailing point and Advanced starter or SLB
- Sand hump, dead end/buffer stop are used as a substitute for signal over lap.

Adequate distance to take off Automatic signal beyond next stop signal is 120 metres on double line.

Isolation.(G.R.1.02(32), S.R.3.50)

Isolation means an arrangement secured by the setting of points or other approved means to protect the line so isolated from the danger of obstruction from other connected line or lines.

By providing isolation chances of side collision can be averted.

Isolation is not required when the speed of run through trains doesn't exceed 50 kmph.

The following are the effective means of Isolation.

- *Derailing switch*: When it is open any vehicle passing over it derails without fouling the other lines.
- *Scotch block*: It is metal or wooden piece placed on a rail ahead of points and locked to prevent movement of any vehicle.
- *Haye's Derail*: When it is on a rail any vehicle passing over it derails
- *Dead end/Buffer stop*: It is an extended siding into a dead end/buffer stop .It traps escaped vehicles.
- *Sand hump*: It is a short siding of an approved design ending in a sanded hump and a sharp rising gradient. It traps the escaped vehicles.

Station Section (G.R.1.02 (54))

It is a section of station limits-

(a) Class 'B' station in TAS

Double Line -- between Home signal and LSS of station in either direction or

Single line – i)between SLBs or Advanced starters (if any), or

ii)between Home signals if there are no SLBs or Advanced starters, or

iii)between outer most facing points if there are no Home signals or SLBs or Advanced starters

(b) Class B station in MAS

- On a double line –

- (i) between outer most facing points and LSS of the station in either direction, (or)

- (ii) between BSLB, where provided, and LSS of station in either direction, or

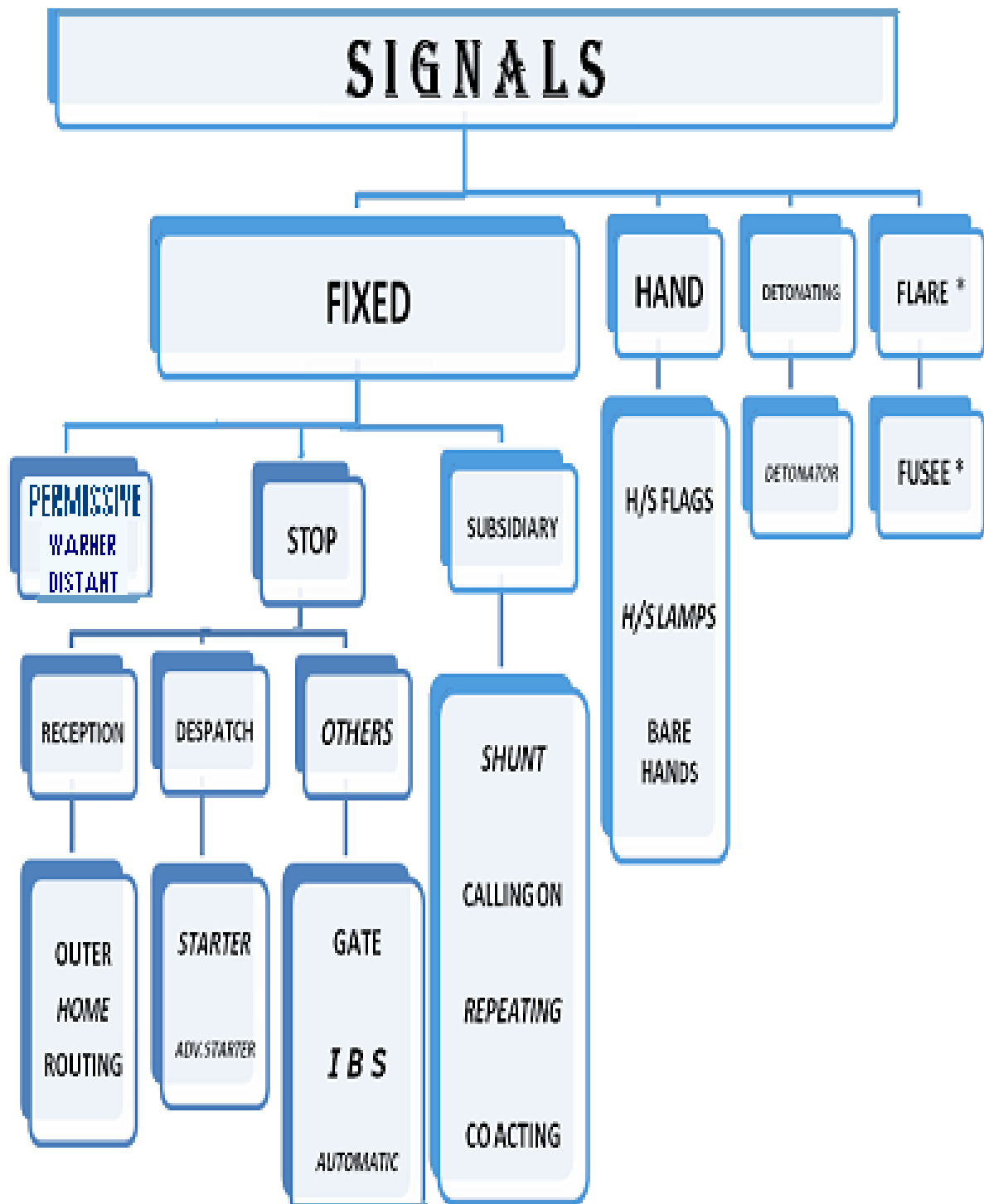
- On a single line –

- (i) between SLB or advanced starters (if any), or

- (ii) between outer most facing points if there are no SLBs or advanced starters.

- Station section is available in 'B' class station only.
- On double line shunting within station section is permitted even after granting line clear. (App.XII-7)
- On single line shunting in the face of an approaching train is normally not permitted. (App.XII-7)
- To perform shunting within station section authority is not required. (App.XII-7)

Types of signals



* Fusee was dispensed with. In the place of fusee, a red flashing hand signal lamp at night or a red flag during day shall be exhibited to warn the incoming train of an obstruction

I) FIXED SIGNALS

1. Permissive signals

a) Warner signal (G.R.3.06)

- i. It shall be provided below the FSS or LSS or on a post by it self 1.5m to 2m below fixed green light.
- ii. Semaphore Warner has a fish tailed arm and painted red with white bar.
- iii. Provision of Warner is compulsory at class 'A' and class "C" in TAS.
- iv. At class 'B' station it is provided when the speed of the run through trains exceeds 50kmph.
- v. In color light area 'P' marker will be provided if it is independently placed on a post by it self.
- vi. In 'ON' position, the aspect is 'Proceed with Caution' and indicates 'proceed and be prepared to stop at the next stop signal'. In 'OFF' position the aspect is 'Proceed' and indicates 'Proceed'

b) Distant signal (G.R/S.R. 3.07)

- i. It shall be located at an adequate distance (1000m) in rear of the stop signal it pre-warns.
- ii. In semaphore territory, it has a fish tailed end and painted yellow with a black bar.
- iii. In color light signalling, it is equipped with a 'P' marker.
- iv. It is capable of showing Caution, Attention and Proceed aspects.
- v. Under approved special instructions a color light Distant signal may be combined with LSS of the station in rear or Gate signal ['P' marker is dispensed with and normal aspect is stop and shows red light in 'ON']
- vi. Where necessary two Distant signals may be provided in the same direction where the sectional speed is more than 110 kmph. In this case Distant is capable of showing Attention and Proceed aspects only.
- vii. Distant in double distant area is placed at 2000M from FSS identified by 'P' mark board
- viii. Whenever Double Distant signal is provided Signal Warning Board is dispensed.

2. Stop signals

a) Reception signals

I. Outer signal (G.R.3.09)

- i. This is provided only at class B station in two aspect signalling.
- ii. It shall be the First Stop Signal [FSS] of the station where provided.
- iii. On double line it shall be provided at a distance of not less than 400 meters from Home signal

- iv. On single line it shall be located at a distance of NLT 400 m from advanced starter or Shunting limit board or 580m from outer most facing point when advanced starter or SLB is not provided.
- v. Where Home signal is provided, Outer signal cannot be taken off unless Home is taken off.
- vi. When Home signal becomes defective, Outer is treated as defective and dealt accordingly.
- vii. Outer shall not be taken off for shunting purposes.

II. Home signal (G.R.3.09)

- (i) Home signal is normally provided at all block stations.
- (ii) At class 'A' station and class 'B' stations in MAS, Home signal is the first stop signal.
- (iii) At class 'C' station it is the FSS and LSS.
- (iv) At class 'B' station in TAS the Home signal is located close to the points.
- (v) In MAS at class 'B' station the Home signal is located at a distance of NLT 180M from station section(Outer most facing point/BSLB) on double line and 180M from advanced starter or shunting limit board on single line or 300M from outer most facing points where Advanced starter or SLB is not provided.
- (vi) Home signal shall not be taken off for shunting purposes.

III. Routing signal (G.R.3.09)

Routing signal is provided to indicate to the Loco Pilot which of the two or more routes is set in his favour when the Home signal, due to its position, is inconvenient for this purpose..

Route (indication) indicators (SEM Part I)

- ❖ These are provided to give information regarding which of the two or more lines is set for Loco Pilots.
- ❖ Route indicators are treated as stop signals
- ❖ If the route indicator in the reception signal is not in working order, the relevant stop signal shall be treated as defective.
- ❖ If the LP finds, the route indicator on starter signal displaying incorrect route, he shall treat the starter signal at ON

Methods of route indication

1. Bracketed signal
2. Placing of more than one signal on the same post.
3. Single arm signal or colour light signal with route indicators

Route indicators generally used are of three types

[a] Stencil type [b] Multi lamp type [c] Junction type

a. Stencil type route indicators:

This indicating apparatus is placed on the same post below or above the stop signal.

When the signal is taken OFF the number of description of the line for which signal is cleared, will appear on the indicator in the form of an illuminated number of alphabet.

b. Multi-lamp Type route indicator:

Here a number of electrical bulbs are arranged on a panel kept on the signal post.

When the signal is cleared, the line number appears on the panel by selective lighting up of the electric bulbs in the required pattern.

c. Junction type route indicator:

It is also known as position type route indicator. It is provided with five miniature white lights. Six indicators can be fixed on a signal post. When signal is taken off for main line and when signal is at on there is no route indication. When signal is off [yellow MAS/green/TAS] with route indicator indicates signal is cleared for turnout.

Electric repeater

When the signal arm or light is not visible from the place of operation, the Aspect is repeated by the Electric Repeater at cabin or station.

Provision of repeaters

There are four kinds of repeaters in use.

- a. Signal arm repeaters.-provided in semaphore signalling territory
- b. Signal light repeaters.- provided in semaphore signalling territory
- c. Miniature light repeaters for colour light signals.
- d. Light emitting diode type repeaters.

Miniature light repeater for colour light signals:-

Miniature light repeaters are provided in the cabin in colour light signalling territory to repeat the aspect displayed by each signal. The repeat indications of Distant and Stop signals take the form of colour light.

Whenever the miniature light repeater in the colour light signalling territory is found to be defective and the signal light aspect is not visible from the station / cabin, the signal which it repeats shall be treated as defective and not taken 'off' for any train and action shall be taken as per Rule 3.68 to 3.72.

b) Despatch signals (G.R.3.10)**I. Starter signal**

- i. When a train leaving a station is guided by only one Starting signal, it becomes the LSS of the station and called the starter.
- ii. Where Starters are provided for individual lines, they shall be fixed so as to protect the first facing point or the fouling mark.
- iii. Provision of starter is compulsory at class 'B' station on Double line and at a class 'A' station.
- iv. At a station if a single starter is provided for a group of two or more lines, it is called Common Starter.
- v. If a starter is provided between first starter and adv starter at a converging junction protecting the points it is called as intermediate starter
- vi. If a bracketed or a single arm with a route indicator is provided at diverging lines it is called as routing starter
- vii. When advanced starter is provided, Starters (free) can be taken off for shunting purpose.

II. Advanced starter

- i. When a train leaving a station is guided by more than one Starter signal, the outer most signal is the LSS of the station and is called the Advanced Starter.
- ii. It shall be fixed at the limit beyond which no train may pass, unless Loco Pilot is given the ATP.
- iii. Normally it shall be placed outside all connections.
- iv. At class 'B' station it demarcates the station section and the Block section.
- v. On single line token less sections and on double line, taking off Advanced Starter is normal ATP.
- vi. While taking off departure signals, the Advanced Starter shall be taken off first and then the starter /starters
- vii. On a double line section it shall be placed at a distance of 180m from Starter in TAS and 120m in MAS.
- viii. On a single line section, it shall be placed from the trailing points at a distance of 180 m on TAS and 120m on MAS.
- ix. It shall not be taken off for shunting purposes.

3. Subsidiary signals**a) Co-acting signal (G.R.3.15)**

- i. It is provided where, signal is not visible whole the time that the LP is approaching it due to height of the signal or over bridge or other obstacle
- ii. It is a duplicating signal provided below main signal.
- iii. Either main or co-acting signal is always visible to loco pilot.

b) Repeating signal (G.R.3.16)

- i. When a stop signal located in two aspect signalling area cannot be seen from a proper distance due to curve of the track a repeating signal shall be provided at an adequate distance in rear of it.
 - ii. It shall not be treated as a stop signal. It can be passed at the 'ON' position with caution.
 - iii. 'ON' position indicates the signal which repeats is at 'ON'.
 - iv. 'OFF' position indicates the signal which it repeats is at 'OFF'.
- These are of three types
- a. Banner type repeating signal b. semaphore repeating signal c. colour light repeating signal
- a. Banner type repeating signal
 - i. This is a white disc with a yellow band between two black borders enclosed in a box.
 - ii. It is provided with 'R' marker.
 - iii. It does not show any light in any aspect at any time.
 - iv. Horizontal position of the band is 'ON' .Rotated to 45° in clock wise direction is 'OFF'.
 - b. Semaphore repeating signal
 - (i) It is painted yellow with black bar square end
 - (ii) It is equipped with 'R' marker.
 - c. Colour light repeating signal
 - (i) This has provision for yellow/green light indicates on and off aspects.
 - (ii) It is equipped with illuminated 'R' marker on a black back ground.

c) Calling on signal (G.R.3.13)

- i. It is a subsidiary signal always provided below stop signals.
- ii. Under approved special instructions it can be provided below any stop signal except LSS.
- iii. Calling- on signal may be taken off whenever the stop signal placed above becomes defective or whenever train is to be received on obstructed line
- iv. It shall be a short square ended semaphore arm painted white colour with red bar or in colour light signalling territory identified by a 'C' marker.
- v. It has no independent aspect in ON position.
- vi. A calling on signal shall show no light in 'ON' position.
- vii. In 'off' position it will show a miniature yellow light.

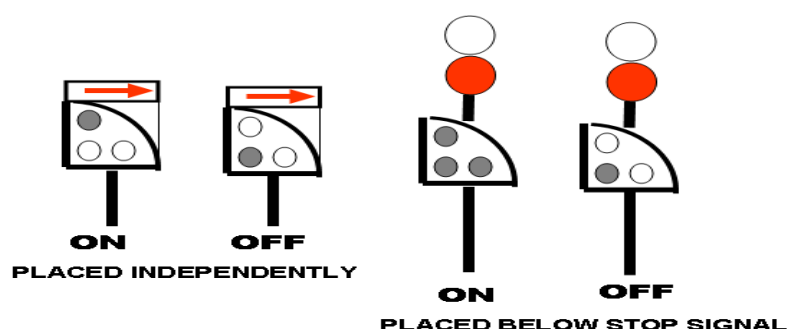
- viii. 'OFF' position aspect is 'Proceed Slow' and indicates the Loco Pilot to 'stop and then draw ahead with caution and be prepared to stop short of any obstruction'.
- ix. It shall not be taken off until the train has been brought to a stop at the signal.
- x. SM shall reverse the calling on signal knob and press COGGN button. After 120 seconds signal will be cleared (For Podanur Panel).
- xi. After complete arrival of train signal to be put back and cancel the route.
- xii. It takes 240 secs to cancel the route.

d) Shunt signal (G.R.3.14)

- i. A shunt signal is a subsidiary signal provided to control shunting movements.
- ii. A shunt signal may be placed on a post by itself or below any stop signal except FSS.
- iii. When shunt signal is placed below stop signal, it shall show no light in 'ON' position.
- iv. In case the shunt signal becomes defective, the authority to pass defective shunt signal is T/ 369 (3b) and proceed hand signals. [Setting and locking of points over the route shall be ensured].
- v. 'ON' Position the Aspect is STOP and indicates stop dead, 'OFF' position Aspect (Proceed slow) & indicates proceed with caution for shunting.

These are of three types

- i. Disc type shunt signal
- ii. Position light type shunt signal
 - 1. It is provided in colour light signalling territory.
 - 2. It shall not show any light in 'ON' position when it is provided below a stop signal.
 - 3. It is a box like arrangement with a provision for three miniature white lights.
 - 4. When two lights are burning horizontally it is 'ON' position (provided independently)
 - 5. If two lights are burning oblique/diagonal it is 'OFF' position (provided independently or below a stop signal).
 - 6. The arrow mark is on the top of the box indicates the line to which it refers.



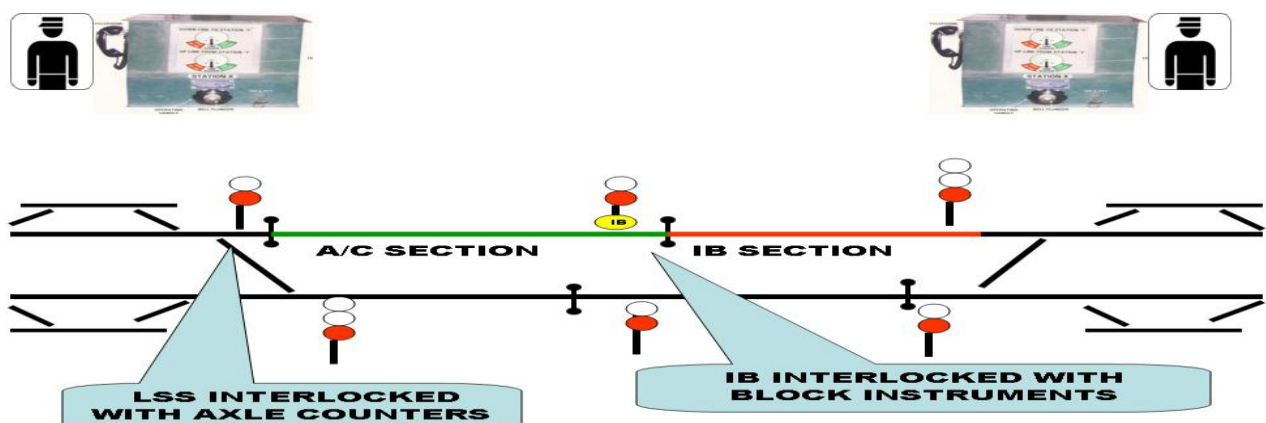
i. Miniature semaphore arm type shunt signal.

a) Shunting permitted indicator (S.R.3.14.3)

1. It is an appliance that works in conjunction with the stop signal and provided to control shunting movements.
2. It shall be placed on a post by itself only.
3. It can permit the shunt movements in both directions.
4. It is provided in the non interlocked area of the yard where interlocked area is isolated.
5. Normally it can be operated by a ground lever or through panel
6. It shall not show any light when shunting is not permitted.
7. It is of two types a] semaphore type b] colour light type
 - a) Semaphore type:- It has a black disc with yellow cross in ;both directions, when shunting is permitted during day time and yellow cross light during night time.
 - b) Colour light type: - When shunting is permitted it shows yellow cross light in both direction during day and night.
8. When shunting permitted indicator become defective, authority to pass defective indicator is T.369 (3b) + proceed hand signals [PHS].
9. Detailed instructions regarding the working of SPI are available in SWR.

OTHER SIGNALS

a) IB signal(G.R./S.R.3.75, S.R.14.13,14.14)



1. Intermediate block signalling means an arrangement of signals on double line in which a long block section is split into two portions each constituting a separate block section by providing intermediate block post.
2. The Intermediate block post is class 'C' station on double line remotely controlled from the block station in rear.

3. It is provided to increase section capacity, to reduce the detentions, to reduce the staff, to secure economy and efficiency in the operation.
4. By providing IB post, lengthy block section is divided into A/C section and IB section.
5. Axle counters section is controlled by Axle counters. One set of A/C provided in advance of LSS and other set provided 400m in advance of IB Home signal.
6. LSS is interlocked with Axle counter and IB signal is interlocked with block instrument.
7. In the station, A/C indication, K1, K2, K3, K4 indications, signal repeater indications are provided.
 - K1- When train passes IB signal at ON
 - K2 – When train passes LSS in off position
 - K3 – When train passes IB signal at OFF position.
 - K4 – Power fails or when bulb fused.
 - In addition to these indications buzzer also is also provided.
8. PB-1, PB-2, PB –3 (Analog), PB-I, Reset Buttons, PB-III (Digital) emergency release buttons also are provided.
 - PB-1 – To reset the axle counter when train passed IB signal at ON
 - PB-2/Re set button – To reset the axle counter due to failure or improper counting.
 - PB-3 – To give co-operation to the station in rear.

9. Normal working

- i. Obtain line clear from advance station [two PNs,(one for LC & one for consent)].
- ii. Ensure Axle counter section is free and take off LSS and IB signal.
- iii. When train passes LSS, A/C indication shows occupied and K2 indication appears with buzzer and will be stopped when LSS knob or lever is normalised
- iv. When train passes IB signal (OFF) K3 indication appears with buzzer and it will be stopped when IB signal knob or lever is normalized and advance SM turns the handle of block instrument to TOL position.
- v. When train completely passes second axle counter [at 400m from IB] section becomes free.
- vi. Then obtain consent (1 private number) for second train and take off LSS.
- vii. By the time second train reaches IB signal, first train may clear into advance station and SM will get Line clear (1 private number) to enter IB section.
- viii. Rear SM can take off IB signal.

b) Gate signal.(G.R/S.R.3.34,3.73)

- i. Every Interlocked level crossing gate which is normally kept open for road traffic is provided with a signal [Gate]
- ii. This signal shall show stop aspect in both up and down directions when the gate is open for the passage of traffic.
- iii. When LC Gate is interlocked with station signals, there is no need to provide separate Gate signal.
- iv. 'G' marker shall be provided on LC Gate signal except those controlling the entry into rail-cum road bridge or where there is bridge between gate signal and the gate
- v. In MAS in rear of Gate signal a distant signal shall be provided.
- vi. When a level crossing is located between the Home signal and the distant signal on MAS, the Gate cum Distant signal shall be located at a distance of NLT 180m in rear of Gate. This signal shall be provided with a 'G' marker and normal Aspect is Stop.
- vii. Gate signal in Automatic signalling territory: Automatic signals interlocked with level crossing gates are distinguished by the provision of 'G' marker. When the gate is in open condition, the gate signal exhibits danger aspect with extinguished 'A' marker. When the gate is in closed condition, it works as automatic stop signal with illuminated 'A' marker

Passing Gate signal is at 'ON'

1. Loco Pilot shall give continuous whistle and stop the train at signal at ON.
2. If the gate signal is provided with 'G' marker.
 - a) Wait **1minute by day and 2 minute by night**, if still signal is at ON, he may draw ahead cautiously upto the gate.
 - b) He can pass the gate on hand signals of gateman.
 - c) If the gateman is available and not showing proceed hand signal, LP shall wait until hand signaled by the gateman
 - d) If gateman is not available, Loco Pilot can pass the gate on hand signals of crew of the train, who will do so after ensuring the gate is closed and locked.
 - e) After passing the gate cautiously stop and after re opening the gate by crew start the train
 - f) If gatemen is not found stop the train out of course at next station and report the matter to SM.

Fog signal (DETONATOR):(G.R/S.R 3.59 to 3.64)

- i. It is an audible signal used to attract the attention of Loco Pilot.
- ii. The detonator consists of a metal disc charged with explosive and capable of being fixed on the rail head by means of metal clasps.

- iii. For use, a detonator shall be placed on the center of the head of the rail with the label upwards and shall be securely fastened to the rail by bending the clasps.
- iv. When an engine or vehicle passes over it, it explodes with loud sound so as to attract the attention of Loco Pilot.
- v. A case containing ten detonators shall be supplied to Loco Pilot, Guard, Gang mate, Gatemen, patrol men, Trolley/lorry, TT machine operator, Loco Pilot of Tower car. 24 detonators to fog signalmen and 8 for key man.
- vi. The normal life of detonator manufactured before 2010 is 7 years and of those manufactured in 2010 and thereafter is 5 years
- vii. Life can be extended by one year each time after testing, to a maximum of 3 extensions.
- viii. Detonators shall be tested once in 12 months
- ix. Detonator shall be tested under an empty wagon moving at 8 to 11 Kmph.
- x. In thick and foggy weather, to indicate the Loco Pilot about the location of signals two detonators shall be placed at a distance of 270 m. from First Stop signal 10 meters apart.
- xi. In case of obstruction one detonator shall be placed at a distance of 400/600(MG/BG), and 3 detonators at 800/1200, 10 m apart from obstruction
- xii. A safety radius of 45 metres should be maintained during explosion.
- xiii. Detonators shall be carefully handled and they shall be stored in dry place.
- xiv. Such staff that is expected to use detonators should be tested once in three months.

What is VTO? What action Station Master shall take when VTO is not visible?
(G.R & S.R. 3.61)

- **Visibility Test Object'** may be a signal arm / back light /light of a colour light signal /VTP which ever is nominated, as per special instructions.
- It shall be mentioned in SWR
- Where VTO cannot be nominated, due to the station on a curve /no signals etc; a separate post shall be erected for this purpose called '**Visibility Test Post** '(VTP).
- It is a post painted with self luminous yellow/self luminous yellow strips, fixed in the ground at 180 mts from the nominated place where SM stands
- **If VTO is not visible to the SM**
 - Where signals (including VTP)are not visible due to thick ,foggy, or tempestuous weather or dust storm etc ;SM shall arrange fog signalling.
 - SM shall send 1 fog signal man in each direction with 20 detonators.
 - Fog signalmen are 4(two from traffic and two from engineering).
 - Fog signalmen shall keep two detonators at FSP, 10 metres apart and stand at a safe distance of 45 metres.

- **'Fog signal post'** is a sleeper painted alternately yellow & black, fixed in the ground at 270 mts from the First Stop signal (out side).
- SM may grant line clear to any train after getting information that fog signals are placed or after a lapse of 30 minutes from the departure time of fog signal man from station.
- SM shall update `station detonator register`.
- There shall not be VTO/VTP in double distant areas.

Signals to warn incoming train of danger ahead (G.R.3.65/66/67)

- i. A red flashing hand signal lamp at night or a red flag during day shall be exhibited to warn the incoming train of an obstruction
- ii. When necessary to protect an obstruction in a block section before the railway servant proceeds to place detonators, shall place a red flashing hand signal lamp at night or a red flag during day
- iii. All concerned railway servants shall keep a stock of red flashing Hand Signal lamp and red flag.
- iv. The railway administration shall be responsible for the supply, renewal and safe custody of such signals and also ensure that the staff properly understands the procedure for using the same.
- v. Every railway servant concerned with the use of signals shall have a correct knowledge of their use and keep them ready for immediate use
- vi. All supervisors shall ensure that concerned staff working under them has correct knowledge for the working.
- vii. When LP notices a signal warning of an obstruction, he shall stop his train immediately and act on the advice of the person exhibiting or on basis of obstruction noticed.
- viii. In case no further details, stop one/two minutes day/night to ascertain the location/cause of warning proceed cautiously up to next block station keeping sharp look out.

Interlocking (Appendix XII –I)

Interlocking means an arrangement between points, signals and other appliances operated from a panel or lever frame either electrical locking or mechanical locking or both so that their operation must take place in proper sequence to ensure safety.

Objectives:

- Setting of route,
 - Locking,
 - Holding, and
 - Prevention of conflicting movements.
1. It shall not be possible to take 'OFF' signals for a route unless all the points are correctly set and the facing points are locked for that route.

2. Once the signals are cleared it shall not be possible to alter the points on the route unless the signals are put back to 'ON'.
3. Even though the signals are put back to 'ON', it shall not be possible to alter the points unless the intended movement over such points is completed.
4. It shall not be possible to operate signals leading to conflicting movements.
5. The points and signals can be operated only in a sequence to ensure safety.
6. Where signals are connected to any device the signal shall not obey until the conditions for working such devices are fulfilled.

Standards of interlocking:

There were three old standards of interlocking viz., Standard I, II, III

There are four revised Standards of interlocking viz., Std –IR, IIR, IIIR and IVR

The equipment of signals mode of locking and operation of points, signals etc. vary in these different standard and they are:-

STANDARDS OF INTERLOCKING AND THEIR FEATURES

Std	Maximum Speed On Main Line	Minimum equipment of signals at class B stations		Mode of locking	Type	Isolation
		TAS	MAS			
I	50	Outer, bracketed home	Distant Home	Key	In direct Direct	Not Necessary
II	75	Warner, Outer, bracketed home	Distant Home, starter	Plunger	Indirect Direct	Necessary
III	MPS	Warner, Outer, bracketed home, starter	Distant Home, starter	Plunger	Direct	Necessary

REVISED STANDARDS OF INTERLOCKING AND THEIR FEATURES

Sl.No.	Item	Std I (R)	Std II (R)	Std III (R)	Std IV (R)
	Allowable speed (KMPH)	Up to 50	Up to 110	Up to 140	Up to 160
1	Isolation	Not compulsory	Compulsory	Compulsory	compulsory
2	TAS/MAS	TAS/MAS	TAS/MAS	MAS	MAS

3	Double Distant	Not compulsory	Desirable	Compulsory	Compulsory
4	Point operation	Mechanical	Mechanical/electrical	Mechanical/electrical	electrical
5	Point locking	Key/Facing point/hand plunger	Facing point locking with point machine	Facing point locking with point machine	Clamp type Direct desirable
6	Interlocking	Key/mechanical	Mechanical/electrical/electronic	Mechanical/electrical/electronic	electrical/electronic

a. Differences between Point indicator and Trap indicator (S.R.3.50.2, 3.51.3.1)

S.No.	Point Indicator	Trap indicator
1.	It indicates the position in which the points are set	It indicates the position of derailing switch
2.	It is provided where there are no departure signals or where single arm Home is provided on MAS	It is provided at derailing switch where there is no signal protection.
3.	Point Indicator shall show a white target by day or a white light by night in both directions when points are set for the straight line	Trap indicator shall show red target by day and red light by night in both directions when the derailing switch is open.
4.	Point indicator shall show no target by day or a green light by night in both directions when points are set for the turnout	Trap indicator shall show a knife edge of the disc by day and green light by night in both directions when the derailing switch is closed

b. Differences between Slip siding and Catch siding (G.R. /S.R 3.50)

S.No.	Slip Siding	Catch Siding
1	Protects the block section	It protects station section/station
2.	It is provided where falling gradient towards block section is steeper	It is provided where falling gradient towards station (section) is steeper

	than 1 in 100	than 1 in 80
3.	It prevents vehicles at station escaping on to the main line	It catches vehicles from adjacent station or block section
4.	It is a short siding	It is a lengthy siding
5.	Outermost point of the station will be a trailing point if provided	Outermost point of the station will be a facing point if provided.

Common Points for both

1. Normal setting points is for Slip/Catch siding.
2. Both siding shall not be used for shunting or stabling purpose
3. Interlocking with block instrument is compulsory.

c. Differences between Shunting Limit Board and Block section Limit Board.(G.R.3.32)

S.No.	SLB	BSLB
1.	It is provided on single line 'B' class station	It is provided on Double line 'B' class station
2.	It is provided both in TAS and MAS	It is provided on MAS only.
3.	SLB is provided where advanced starter is not provided	It shall be provided where outermost points are trailing or where there are no points
4.	It shall be placed at a distance of 400 m in TAS and 180 M in MAS from FSS	It shall be placed at a distance of 180m in advance of the Home signal.
5	This board bears the words 'Shunting Limit'	This board bears the words 'Block Section Limit'

Common Points:

- Both are painted yellow with black cross painted above.
- Both are facing towards station.
- Both demarcates station section and block section.
- Both fitted with lamp during night time showing white light in both directions

Disconnection and Reconnection (SR 3.51.6&APP.XIII)

1. The Engineering (or) S & T officials will take up works related to points, signals, lever frames, block instruments etc. when they are defective or as a part of periodical maintenance,.
2. They have to take prior consent of the S M.
3. For this purpose works are classified as under
 - Group A: Works not requiring the consent of the S M
(Ex: Replacement of bulbs fuses etc.)
 - Group B: Works definitely require the consent of S M
(Ex: Testing of points, signals Etc.)
 - Group C: Works definitely requires issue of Disconnection Notice(T.351).
(Ex: Removal of points, lock slides of a point, detectors, Disconnection of lock bar Etc.)
4. Disconnection notice shall be issued by S & T staff not below the rank of SI/ESM.
5. Disconnection upto one hour should normally be allowed by SM depending upon trains in the section
6. If Disconnection is not allowed by the SM, it should be requested by the S&T Official and allowed by the control depending upon the flow of trains. Otherwise, the available slot may be indicated by the Control.
7. If the maintenance / repair of S&T gear is urgently required to avoid an accident, it can be permitted with approval of Sr.DSTE.
8. For works involving disconnection for more than one hour, a Disconnection schedule jointly signed by Sr.DSTE, Sr.DOM, Sr.DEN & Sr.DEE/TRD shall be issued and the progress of joint schedule reviewed by the DRMs periodically.
9. For Disconnections / maintenance likely to last for more than a day, Temporary working instructions must be issued.
10. Once disconnection is accepted, no attempt shall be made to operate disconnected gear.
11. In case of a crossover, if points at one end are disconnected, points at other end shall also be treated as disconnected.
12. When the points are disconnected, the signals detecting such points shall be treated as defective.
13. It is the duty of S & T staff to keep such signals at ON..
14. If the lever frame in the cabin is disconnected, all the points worked by such Cabin shall be treated as non-Interlocked..
15. When Over hauling of the lever frame is under taken special instructions issued by the divisional authorities shall be strictly be followed.
16. In case of a joint work with engineering department an endorsement as "Joint Work with Engg. Dept" shall be made in the disconnection notice.
17. The S M shall advise the cabin staff with the particulars of disconnection under the exchange of P N.

18. Shunting movements are to be avoided as far as possible.
19. If it is necessary to pass a train or to perform shunting, the on duty SM shall advise SI by a memo.
20. In case of a joint work, PWI permission shall be obtained by S I.
21. The SM shall ensure the correct setting, clamping and padlocking of the points for the safe passage of the train.
22. After completion of the shunting or train movement the SM shall advise the SI to resume the work duly unclamping the points.
23. After the completion of Engineering Work, the PWI shall give a memo to SI with a copy to SM.
24. The SI shall issue reconnection notice only after he receives Track fit Certificate.
25. The SM shall test the signals, points (Which were disconnected) jointly with SI before accepting reconnection.
26. SM shall advise the cabin staff with the particulars of reconnection under the exchange of PNs.
27. The Timing of disconnection and reconnection, trains passed and detentions etc. shall be recorded in 'Disconnection and Reconnection' register.

Points effecting the movement (GR 3.38)

1. Points shall normally be set for straight line i.e Normal position.
2. Before taking off signal for a train, SM shall ensure
 - All the facing points over which train is likely to pass are set correctly and locked
 - All trailing points are set correctly, and in case of motor operated points locked,
3. Immediately after arrival of the train at a station if there is no shunting or other movement, SM shall
 - Set the points against the occupied line on either side on single line and
 - Set the points against the occupied line in rear on double line.
4. While granting line clear if all the lines are occupied, points shall be set to the line occupied by stabled load or a goods train.
5. If all lines occupied by passenger trains, and line clear is asked, points set to loop line in which engine is facing the direction of incoming train.
6. Speed of a train over non interlocked points shall not exceed 15 Kmph.
7. Speed of a train over 1 in 8 ½ turnout with curved switches, 52/60 kg rails and PSC sleepers is restricted to 15 kmph
8. Maximum Speed of a train over with 1 in 8 ½ turnout with Symmetrical layout provided with Thick Web switches(TWS), 52/60 kg rails and PSC sleepers is restricted to 30 kmph
9. When signal which is Interlocked with points, becomes defective, these points shall be treated as Non Interlocked.

Conditions for taking off home signal (GR/SR 3.40)

- 1). When a train is approaching
 - On single line, home signal shall not be taken off unless the line is clear for an adequate distance beyond the trailing points / place at which the train is required to come to a stop.
 - On double line, beyond starter.

Such adequate distance shall not be less than 180 mts & 120 mts in TAS & MAS respectively.
- 2). If the train stops at the home signal,
 - A) on single line , the line is clear up to trailing points or place at which the train is required to come to a stop.
 - B) on double line up to starter.
- 3). At terminal stations or where there is an exception, CRS approval to be taken.
- 4). Sand hump of approved design / derailing switch (CRS approval) shall be deemed to be efficient substitutes of adequate distance referred above.
- 5). Adequate distances / any CRS approvals to be indicated in SWR.
- 6). Whenever a stopping train is to be received on a line not provided with track circuit or axle counter, SM shall ensure that line is free including adequate distance.

Motor Operated Points (S.R.3.38.7, App XI-6)

1. Whenever points are operated by motor it is known as Motor Operated Point.
2. In SCR there are two kinds of point motors in use.
 - a) Universal b) Siemens'
3. These motors are operated electrically by pressing buttons or by turning knobs on a panel or by operating miniature levers in the cabin or by mouse operation in VDU.
4. Normal (N) and Reverse (R) positions are repeated in cabin/station.
5. After operation of points the SM shall check the indications.
6. There are two positions 'N' & 'R' and three indications 'N', 'R' & 'free' in the panel.
7. The SM shall operate the point only when there is free indication.
8. If after operation the point is not setting, try to operate 4 to 5 times from 'N' to 'R' and 'R' to 'N'.
9. If SM does not get any steady indication, physically verify the points at site and remove any obstruction between switch & stock rails.
10. If flashing still continues treat the points as defective and intimate the S&T officials.
11. When point becomes defective, use crank handle and set the points to the required position..
12. SM shall ensure correct setting, clamping and padlocking of facing and trailing points.

13. Where two points are operated by a single knob/ buttons it is known as double ended points, which are operated separately by two motors..
14. The end nearer to station is denoted as 'A' end and farther end is denoted by 'B' end. In case of failure, setting of both ends to the required position is compulsory.
15. SM shall personally ensure correct setting of each end of the point and decide which end point to be cranked and if it is set correctly, it must be clamped and padlocked .
16. After setting the points using crank handle if N or R indication is available signals can be take off after clamping and padlocking.

Emergency Crank handle (S.R.3.38.7, App XI-6)

1. Where points are operated by motor, emergency crack handle is required for operation during failure of points.
2. They are secured in glass fronted wooden box/case and sealed in cabin/station along with key & padlock of point machine
3. SM to be conversant with the use of crank handle.
4. They are chained to key in HKT in wooden box.
5. By pressing the release button, turn HKT to the left and extract the key along with the crank handle.
6. Once the crank handle is removed no signal can assume off aspect until it is again inserted in the HKT.
7. The emergency crank handle is inserted in point machine and rotated to set & lock the points in required position in presence of SM on duty.
8. Before inserting crank handle care must be taken that the relevant lever/knob kept in the required position.
9. Whenever points are operated by crank handle this must be clamped & padlocked before authorizing any train movement over them.
10. After using crank handle if point showing steady aspect the crank handle may be restored in its place and signals taken 'off' after clamping and padlocking.
11. After failure is rectified, the crank handle is restored in the box and HKT key inserted and turned fully to right until key 'in' indication appears in the panel.
12. Box to be locked and sealed.
13. Suitable entries made in the crank handle register.
14. In case of Stations provided with end cabins, when route is locked crank handle can be extracted by pressing route cancellation button and after 120 seconds the free indication appears in the HKT and it must be rotated to extract the key.
15. Whenever S&T officials require crank handle for testing or maintenance, Disconnection will be given and entry in the register be made.

Defective Signals (App XI -6,G.R/S,R 3.68,3.69 and 3.70)**Signal Fails to Clear**

- Ensure that Station Master's key is in.
- Check all the buttons/knobs are in the required positions.
- Check the point position to see that the correct route is set and the track circuits on the route are showing white indication on the panel.
- Check whether the crank handle is IN.
- Ensure siding key IN and LC gate closed indication before clearing the signal.
- If signal lamp failure indication is flashing and audible warning is ringing, stop the warning bell by pressing the acknowledgement button.

Duties of SM

- SM shall arrange to place the Signal at on.
- Report such defect to ESM/SI and copy to TI, DSTE, DSO, and SCOR.
- Make entry in the S&T failure register.
- If Signal detects any points, such points shall be treated as non-interlocked.
- SM shall personally ensure correct setting, clamping and padlocking of points, unless the train is dealt on calling- on Signal.

a) Reception Signal (home) defective(G.R. &S.R.3.69)**When LP has been advised (pre warned)**

- The SM shall advise the SMs of rear/nominated station and ask him to issue written authority [advance authority T.369 (1) to the loco pilots. (except at station where calling on/signal post telephone is provided)
- In the advance authority LP is authorized to pass the defective signal duly observing the PHS at the foot of the signal at a restrictive speed of 15KMPH.
- Depute competent railway servant to exhibit PHS
- LC shall not be given unless conditions for taking off of the Signal is fulfilled

When LP has not been advised (not pre warned)

- The train shall be brought to a stand at the foot of the Signal.
- By taking off calling on Signal where provided or
- By authorizing LP over Signal post telephone under spl. instructions where provided or,
- issuing T/369(3b) to LP to pass Signal at ON'with 15 kmph + PHS at the foot of the Signal

Signal got struck up in off position

- Light of the Signal shall be extinguished.
- Paste paper on the glass or put a cross.
- Stop hand Signal shall be shown at the foot of the Signal.
- The SM of rear station shall issue PLCT and T.369 (1).
- Departure Signal – PLCT or T/369 (3b).

Departure Signal defective(G.R. &S.R.3.70)**Starter defective**

- Train shall be brought to a stand.
- By taking off calling on Signal or
- Authorise the LP by T/369(3b) + PHS at the foot of the Signal.

Advanced starter

- Authorise the LP by PLCT.
- PHS not required except where it detects points.

IB signal is defective (S.R.3.75)

1. When SM is aware when the IB stop signal is defective or A/C failed or LSS failed or IB Distant failed or Block Instrument failed before dispatching a train,
 - a. suspend the IB working .Treat two sections i.e. axle counter section and IB section as one block section.
 - b. He shall stop the trains at station and obtain line clear.
 - c. Treat the Gates which are interlocked with IB signal as non interlocked.
 - d. Ensure closure of LC gate by exchange of PN with gateman.
 - e. Issue paper line clear ticket +T.369.[3b] to pass IB stop signal at 'ON'.
 - f. LP can proceed with normal speed.
2. When Loco Pilot finds an IB signal is at 'ON' [defective]
 - a. He shall stop the train and contact SM of rear station immediately on IB telephone.
 - b. If block section is free and line clear is obtained, SM shall authorize the Loco Pilot to pass IB signal at 'ON' by Giving PN which was obtained from advance SM.
 - c. Loco Pilot can pass the IB signal with normal speed.
3. If the telephone is out of order.
 - a. Loco Pilot shall after waiting 5 minutes pass the signal and proceed with a restricted speed of 15 kmph when view is clear and 8 kmph when view is not clear and during night up to the FSS of next station even if it is at 'OFF'.
 - b. When LP passes IB at ON, rear SM gets K1 indication with buzzer.

- c. Advise the advance SM particulars of train which passed IB at ON.
- d. Intimate LP through gate phone/TPC/through LP of opp. direction
- e. The Loco Pilot must report the failure to the SM of the block section ahead.

I. G.R.& S.R. 4.12 Engine pushing

1) Engine pushing outside station limits may be permitted in the following circumstances.

i. Passenger trains

- a When a train meets with accident or in emergency, Working of relief/ transshipping trains
- b Not able to proceed further due to floods, breaches, landslides, etc..
- c To pickup an injured passenger.

ii Goods trains

- a In connection with working of material trains.
 - a. Engine unable to haul the load
 - b. Trains are required to work to the point of obstruction.
 - c. Working of relief/ transshipping trains during accidents.
 - d. Not able to proceed further due to floods, breaches, landslides, etc..
- 2) The Guard/Loco Pilot shall contact SMs/SCOR/TPC telephonically and obtain permission to push back.
- 3) Such permission will be given by rear Station Master after ensuring that LC gates are closed supported by PN.
- 4) If Guard/Loco Pilot cannot contact SMs/SCOR/TPC, the Guard/Assistant Loco Pilot shall walk to the nearest station. SM of the station shall issue caution order permitting pushing back after obtaining permission from Station Master in rear supported by PN
- 5) The Guard shall travel in the leading vehicle if it is fitted with brake valve or hand brake, if not travel in the nearest vehicle fitted with brake valve.
- 6) The speed of the Train is restricted 25 kmph when guard is traveling in the leading vehicle and 8 kmph when guard is not traveling in the leading vehicle.
- 7) The Guard of the pushing train shall keep a good lookout and continuously exhibit PHS.
- 8) In the absence of PHS, LP to stop train at once and ascertain the cause.
- 9) Guard also shall ascertain LC gates closure & is responsible to warn passengers.
- 10) Guard continuously whistle, keep sharp lookout and be prepared to stop train short of any obstruction.
- 11) When goods train worked without Guard, such duties of Guard performed by ALP.
- 12) For Goods train without BV, Guard to walk by side of track in rear of LV, exhibiting PHS continuously, LP proceed with walking speed .
- 13) Reception on Single Line by taking off reception signals.

- 14) On Double Line after ensuring the train has come to a stop at the same line LSS or Opposite Line FSS whichever Signal comes across first, train may be received on Pilot In Memo after correct setting, clamping and padlocking of the points.
- 15) This rule shall not apply to a train the leading vehicle of which is equipped with driving apparatus [push - pull train]
- 16) This rule shall not apply to an engine, assisting in rear of train (without being attached).
- 17) Patrol or search light special with one or more vehicles in front of the engine may be permitted to run at a maximum speed of 40 kmph.

II. G.R.4.19.6 Brake Van Equipment

1. Every coaching train is provided with BV equipment
2. Loaded at Platform of Primary maintenance in both SLRs (or more) inside cupboard locked with one time lock (OTL) and sealed jointly by SE/JE C&W and Dy SS
3. EMU/MEMU loaded in low tension compartments in motor coach. DMU/DHMU space available in driving trailer cab.
4. All SLRs shall be jointly checked in return direction at the Primary maintenance station.
5. Provision/Responsibility /maintenance
 - i. Portable Control Telephone – 1 set – SE/JE (TELE)
 - ii. Portable train lighting equipment – 1 set – SE/JE (TL)
 - iii. Fire Extinguisher - 2 No. – JE/SE C&W
 - iv. Wooden wedges - 2 No. – SE/JE C&W
 - v. Stretcher in good condition - 1 No. - DYSS
6. After loading, the staff provide OTL, cover with Rexene pouch, tie and seal
7. SE/JE (C&W) keep spare OTL in cabinet
8. Every trip monitored on PF on arrival
9. A sticker pasted in the SLR with S.NO. of equipment and instructions for the guard
10. JE/SE, DySS maintaining BV equipment procure initially for all SLR'S+10% extra
11. Dy SS/TNC to obtain acknowledgement of Guard in the register & VG at originating station
12. I/C and O/G Guard make entries in VG and rough journal about intactness of OTL.
13. In case missing OTL or broken, Guard to give message to SM of the station, copy to SM of originating station indicating train number, SLR NO. Missing BV equipment with S.No. along with date, location etc.
14. SM of originating station advise concerned and recoup on arrival of train.

III. Vehicle Guidance (VG)(S.R.4.25.3)

1. It is prepared by station staff or TNCs where available.
2. The TNC should note down the particulars of vehicles in the hand book from the wagons/vehicles.
3. This shall be prepared in ink carefully and legibly.
4. VGs shall be prepared direct from the TNC's hand book.
5. The entries should not be copied from one VG to another VG.
6. The VG is prepared in a format suitable for computer transaction.
7. The entries are made in the relevant columns and in serial order as per formation either from train engine or brake van.
8. VGs of through goods trains shall be made in duplicate, one copy shall be handed over to the SM of the first terminal station of the Division for submission to the DRM and the original must go to the destination station by way of transfer from Guard to Guard.
9. The particulars to be entered in VG are as follows,
10. a) Owning Rly b) Painted No c) Wagon code d) Empty or loaded e) From and To station f) Tare weight g) Gross weight h) Remarks if any.
11. When ever vehicles are attached the entries shall be made by the station staff and when vehicles are detached, the Guard should obtain the signature of station staff on the VG
12. Before starting the train, the Guard is responsible for checking the load with the entries in the VG.
13. On completion of journey the VG must be handed over to the SM.
14. VGs of Mail/Express, Passenger, Troop trains and special trains to be sent to COM and Mixed and Goods trains to DRM along with a summary sheet every day.
15. For calculation purpose a bogie coaching stock when attached to goods train shall be reckoned as 2 ½ units.

IV. Working Time Table (WTT)

Large amount of information is required to be conveyed to the staff connected with running of trains and maintenance of Infrastructure on the Railways. They must not only know the timings of the trains, but also a lot of information about what maintenance/attention like fuelling, watering, engine changing or any other service to be provided.

In addition, the train crew needs lot of information about Track, Signals and other facilities and such information is conveyed to the staff through the Working Time Tables. These Time Tables are printed Division wise on the orders of COM every year in the month of July along with Public Time Table.

Important items included in these Time Tables:

1. Detailed timings of trains at each station namely arrival, departure, skip timings (advertised timings) on Section, even for stations where do not stop.
2. Maximum permissible speed for various trains on each section.
3. Type of locomotive permitted to run on each section.
4. Normal running time for goods, passenger, express and superfast trains.
5. Particulars of Engg allowance/Traffic allowance provided on each Section.
6. System of working of trains on each section.
7. Details of System of Signalling available, Type of Interlocking provided and No. of Running lines at each station with line capacity.
8. Ruling gradients, critical block section and precautions required to be taken for running of Trains across Section.
9. Details of Permanent Speed restrictions on each Section.
10. Details about stations Where Medical Equipment/vans and Accident relief Trains are based.
11. Details of Emergency Sockets location and kilometerage.
12. Important Rules about safety of Train operations including the JPO's and other bulletins.
13. Telephone No's of Stations, List of all Revenue officials along with phone No's and Jurisdiction of Various Inspectors of each dept.,
14. These copies are supplied to all stations, Loco Sheds/Crew Lobbies, and individual copies for Loco pilots, Asst. Loco pilots, Guards, Inspector of Track, Station Masters and other necessary staff.
15. One copy of WTT of each division shall be sent to CRS for information.

V. Running g of Goods train without Brake-van (S.R.4.23)

1. During emergencies to run a train without a brake-van the following precautions should be observed.
2. Specific orders of Sr. DOM/DOM is required.
3. Strictly prohibited during total interruption of communication
4. Separate Registers to be maintained in the control office.
5. It shall be ensured that the train is provided with continuous and effective vacuum/compressed air from engine to rear most vehicle..
6. In Automatic Block system no train must be allowed to follow until the preceding train without brake-van has arrived complete at the next reporting station in advance.
7. Guard of the train shall travel in the engine.
8. Tail board/tail lamp/ must be fixed on last vehicle.
9. Station Master shall ensure that the train is complete by tail lamp/tail board.

10. The station as well as the cabin staff should be particularly alert, when there is a doubt that the train is not complete and should draw the attention of GDR by showing 'train parting' signal.

.When encounters trouble en route

- a. Guard and Asst. Loco Pilot should check and attend the trouble
- b. Within station limits the help of C&W staff or points man should be taken
- c. The Loco Pilot should regulate the speed depending on the 'Feel test' conducted by him..

VI. Running of Goods train without Guard (S.R.4.25.4)

1. In exceptional circumstances, only goods trains may be run without Guard with the specific orders of Sr. DOM.
2. Some of the duties of Guard shall devolve on the Loco Pilot and Assistant Loco Pilot.
3. It should be ensured that the train is provided with continuous vacuum/air pressure from the engine to the rearmost vehicle.
4. Loco Pilot shall ensure that the rear-most four pistons are in proper working order if no Guard is provided at an intermediate station or at crew changing station.
5. Loco Pilot shall ensure that the required amount of vacuum/air pressure is provided in the brake-van before signing BPC.
6. Vacuum/air pressure gauge shall be provided to Loco Pilot.
7. Tail board/Tail lamp must be fixed in rear of the last vehicle.
8. SM shall issue caution order with an endorsement 'train is to run without Guard'.
9. SM shall advise to SCOR under exchange of PNs who will inform the Station Masters en route. The SM will inform cabins and gates under exchange of PNs
10. Where IB signal is provided, the SM shall not dispatch a train in rear of this train up to IBS unless the train w/o Guard reaches the station ahead.
11. In Automatic block system, no train shall be allowed to follow the goods train without Guard until it reaches to next reporting station.
12. The SM/SWM/cabin man shall ensure that the train has arrived complete and is standing clear of the fouling mark if such a train stops at a station.
13. During tempestuous weather, total interruption of communication and TSL working, running of trains without Guard is strictly prohibited.
14. Extra detonators should be carried by the Loco Pilot.
15. While going for protection, care shall be taken that Loco is not deserted if it is on rails.
16. When encounters trouble en route
 - a. Assistant Loco Pilot should check and attend the trouble
 - b. Within station limits the help of C&W staff or points man should be taken

- c. The Assistant should ensure the continuity.
- d. The Loco Pilot should regulate the speed depending on the 'feel test' conducted by him.

Note: a. Running of passenger carrying train without guard should not be permitted

b Two empty coaches or saloons may be permitted to run between HYB—SC—KCG and BZA— GNT. without Guard

d. Running of goods train without guard should not be permitted if last vehicle is not b/van

VII. G.R. 4.29 Hot axle/Hot Box.

Symptoms of Hot axle bearing]

- a] Smell
- b] Smoke
- c] Whistling sound
- d] Flame

Symptoms of Hot Box [Seizure of Roller

- a] Splashing of oil
- b] Smell of burnt grease
- c] Discolourisation of paint on hot box plate
- d] Red glow during night
- e] Metallic sound
- f] Skidding of wheels
- g] Tilting of springs

1. If hot axle box is found at a station, where the C&W staff is not provided, the vehicle shall be detached from the train.
2. If hot axle is found between stations, train shall be brought to a stand immediately. Examine the axle box and attend it.
3. In case of hot axle, Loco Pilot shall exercise his discretion with regard to the restricted speed at which it is safe.
4. The SM receiving advice of Hot axle, receive the train on Main line. Loco Pilot can enter station.
5. If it is not possible to receive the train on main line, train shall be brought to a stop at FSS and receive on any line.
6. On arrival at station hot axle wagon shall be examined by C&W Staff or it has to be detached.
7. It will be attached only after attended by TXR staff and given 'Fit to run' certificate.
8. Wagons involved in accident, should be moved only with the permission of DRM & 'Fit to run" certificate given by TXR.

VIII. FLAT TYRE

1. Flat tyre is detected by the unusual/hammering sound of vehicles
2. It is caused due to not correctly keeping empty/load handle in position, not releasing vehicles properly and skidding of wheels.

3. When train is run with flat tyre, it causes wheel failures and rail fractures.
4. **LP and guard while on run notice flat tyre in block section**
 - Observe SR 30kmph and clear block section
 - On arrival at station intimate SM
5. **Station staff either through the crew of train or while 'exchange of all right signals' become aware of flat tyre they have to**
 - a. Give memo to TXR staff if available to examine the vehicle.
 - b. TXR staff after examining if found within permissible limits(i.e. 60mm for wagons and 50mm for coaches) has to certify the vehicle to run with normal speed.
 - c. If TXR staff find the flatness beyond the permissible limits advise SM to detach the vehicle at that station.
 - d. If TXR staff not available at that station with the consultation of SCOR the vehicle has to be detached at that station.
 - e. The detached vehicle sent to next TXR point by other train with a speed restriction of 30 Kmph.
6. **Control office getting information about flat tyre**
 - Arrange to stop at next station.
 - Advise DyCHC and CHC
 - If TXR staff is available at the station, arrange to examine and certify by TXR to either detach or permit the vehicle.
 - If TXR staff not available detach that vehicle after consultation with LP, guard and SM.
 - Detached vehicle may be moved to next TXR examination point by another Light engine or by any train with SR 30kmph
 - DyChc with Engg. Control ask PWI to inspect rear block section by light engine/tower car with SR 30kmph or by motor /push trolley.
7. Engineering staff inspects the rear block section and certify.
 - PWI shall impose caution order in the section till USFD test is done.
 - SR 50 kmph for passenger and empty goods trains
 - Loaded goods train shall not be permitted.
 - After USFD test is done in that section for the next 24 hours
 - Speed for passenger/empty goods train -75 kmph and
 - Speed for loaded goods -50 kmph

IX. Attaching of Damaged Vehicle/ Engine(S.R.4.24.4)

1. It shall be certified fit to run by TXR/SSE(Loco)
2. It shall be attached in rear of the rear B/Van of Goods/ Mixed train during day light hours and clear weather only.
3. Only one such vehicle is permitted.
4. Speed shall be as specified in the 'Fit to Run Certificate'.
5. At Sun set or when view is not clear it shall be detached at the first station and the Certificate shall be handed over to the SM on duty.
6. It shall be escorted by the staff of Mechanical department.

X. Starting of Trains (GRs/SRs 4.35)

1. Before starting a train the LP must get permission from the Guard to start the train.
2. Guard shall not give starting permission unless he gets permission from the SM to start.
3. The SM before giving such permission must satisfy himself that:
 - a. All is right for the train to proceed.
 - b. Line clear has been obtained from the station in advance,
 - c. Correct starting signals have been taken off,
 - d. ATP under the system of working has been given to the LP,
4. To start a passenger carrying train the SM shall ensure all work in connection with it is completed,
5. The permission to start passenger carrying trains may be given in the following manner,

At important junction stations provided with PA system

i. As stipulated in SWR,

At all other stations by ringing the station bell as follows:

- i) **2 Beats** for starting a DN train
 - ii) **3 Beats** for starting an UP train
 - iii) **4 Beats** for starting a Branch line train.
6. At terminal junctions, Engine changing and refreshment room stations, there shall be a warning bell 5 minutes before the starting time.
7. On receipt of SMs permission, when all work in connection with the train is completed the Guard shall sound his whistle and display a green flag by day and a green light by night to the LP to start his train.

XI. G.R.4.42 Exchanging of all rights signals

1. All right signals are exchanged between Loco Pilot and Guard to ensure that the Guard is in his brake-van and that the train can proceed.
2. All right signals are exchanged between Guard, Loco Pilot and Station Staff to ensure that the train is running in a safe and proper manner.
3. The All right signal is given by holding out the green flag horizontally by day and by waving the green light horizontally by night.
4. This signal shall normally be exchanged on the platform /station buildings side (station limits) or left side (out side station limits) unless the track is on curve, in which case signals be exchanged from the other side.
5. All right signal shall be exchanged as detailed below.
 - i. When train starts after stopping at station.
 - ii. When train starts after stopping between stations

- iii. When train running through a station.
- iv. While passing through ghat sections.
- v. While approaching important girder bridges
- vi. When any train passing on the adjacent line / s.
- vii. When last vehicle has cleared the speed restriction zone
- viii. After clearing loop line cross over points

i) When train starts after stopping at station.

- When train starts, the Guard shall look back and satisfy him self that no stop hand signals is given by station staff, he shall then exchange the "All Right "signal with the Loco Pilot.
- All right signal shall be exchanged until the engine has passed the advanced starter / LSS except where the Guard hand signal cannot be seen for any reason, the Loco Pilot guided by the signals exhibited by Station Master and cabin staff.
- If Loco Pilot does not get the signal from the Guard or the SM and the cabin staff, he shall stop the train and ascertain the cause.

ii) When train runs through a station:

- When train runs through a station, SM shall exhibit all right signals to the train him self standing on the plat form side. Similarly Loco Pilot and Guard shall be on the look out for SM / C.ASM / SWM / C.MANs all right signals. A competent railway servant shall be sent to off side to exchange all right signals.
- Any thing unusual is noticed during passage of the train, the SM shall show stop hand signals to stop the train. If it is not possible to stop the train advise the LP through Gateman or IB telephone or TPC and inform SM of advance station to stop the train and examine. Trains on adjacent line may be permitted after issuing caution order.
- Cabin staff, where shunting is performed shall not exhibit any signal to passing trains when nothing irregular is noticed. But they shall show stop signals if any thing danger is noticed.
- All right signal shall be exchanged till engine has passed advanced starter /LSS
- If Loco Pilot/guard of trains fail to exchange all right signals or /and fails give a continuous whistle, the SM shall advise the station in advance to stop the train and ascertain the reason.
- v). Loco Pilots and Guards of running trains will be responsible towards any **train passing on the adjacent line/s** and exchange 'All Right' signal with the Guard and Loco Pilot of such trains.
- Guards of trains provided with "Air conditioned" SLR/LR should show the "all right signal" to station staff by switching on the flickering tail light and to the Loco Pilot by speaking on telephone.

XII. Responsibility of SM when he notices train passing without tail board/tail lamp. (S.R.4.17)

1. SM shall observe and ensure that all trains passing through the station are provided with tail board/tail light.
2. When SM notices train without tail board/tail lamp he must intimate to the SM in advance by bell code (six pause two) that train is w/o last vehicle indicator and SM in rear that the train has arrived incomplete (six pause three) and shall not clear the block section.
3. Where block proving axle counters are installed and functioning, SM may clear the block section. The Station Master shall still advise the station in advance to stop the train to see that the defect is remedied
4. On double line SM shall give caution order to observe special caution.
5. If train has already left, SM shall
 - intimate gateman to stop and advise the LP and Guard of the circumstances,
 - keep the IB signal at on.
 - in OHE area power supply shall be switched off and advise TPC to inform LP..

XIII. G.R. 4.44 Train held up at home /FSS signal

1. When train is held up at home /FSS, Loco Pilot shall sound continuous whistle to warn guard.
2. If apparent cause is not known, after 5 minutes, LP shall send Brakes man or Asst. Loco Pilot shall proceed to the cabin or station to warn the station master.
3. Brakes man or Asst. Loco Pilot proceeding to the station shall show stop hand signals towards the station.
4. After 15 minutes guard shall protect the train in rear irrespective of cause, as per GR 6.03.
5. If in the mean time the signal is taken off or authority received by Loco Pilot he shall sound continuous whistle to recall guard.
6. Exchange hand signal with guard before starting the train.
7. If train is without guard, these duties shall devolve on the Loco Pilot

XIV. Working of Material train (S.R.4.62)

1. When material train is required to run for engineering purposes, DRM shall make arrangements in good time advising the particulars of the work to all concerned.
2. In case of emergency arising for breaches floods, SM or other senior official can order material train on the application of the engineering branch. The running and stabling of material train shall be arranged by SCOR.
3. A material train shall work only between sunrise and sun set.

4. During emergency a material train shall work between sunset and sunrise after getting permission from DRM.
5. DRM shall give permission subject to following conditions
 - a. Work spot shall be lighted.
 - b. second class accommodation to labour
 - c. Guard shall ensure no labour is traveling on MT.
6. At least one brake van shall be attached in rear of the train
7. The authority to proceed for the material train during the block are
 - i. When the train is coming back to the same station from where it has started is – T.462 and
 - ii. When the train is proceeding to the next station after completion of work – T/A.462
8. The speed of the material trains shall not exceed the speed laid down for goods trains on section.
17. The Guard, the Loco Pilot of the materials trains shall protect the trains as per GR 6.03 when working between stations.
18. A material train shall not be divided except in emergency.
19. In such cases only on the authority and personal supervision of PWI who shall be responsible to take precautions before dividing.
20. Guard shall secure the formation before dividing.
21. Dividing of the material train is not permitted on a gradient of 1 in 100 or steeper.
22. No material which has been unloaded shall be left above rail level infringe the standard dimensions.
23. If the engine is pushing when guard is traveling in leading vehicle (B/VAN), the speed shall not exceed 25kmph on straight line and 8kmph on turnout and when Guard is not traveling in the leading vehicle the speed shall not exceed 8 kmph.
24. A material train shall enter or work in the loco yard with the permission of the LF.
25. The validity of BPC having CASNUB bogies with air braked stock for 30 days without weekly revalidation, UIC bogies with air brake stock for 30 days with fortnightly revalidation and vacuum brake with UIC for 30 days with weekly examination.
26. Brake power shall be not less than 90 % at the time of Intensive examination.

XV. Track Tamping Machine (TTM)(S.R.4.65)

1. **Track Tamping Machine (TTM)** is a self propelled vehicle fitted with head light and two parking lights and is having 2 parts, viz. the engine and the tamping-cum-leveling units.
2. The machine can run both by day and night.
3. TTM will work under the direct supervision of an official not less than PWI, who is responsible for taking Traffic Block.
4. No person shall be permitted to drive a TTM unless he is in possession of a competency certificate issued by DRM.

Working

5. The TTM shall be treated and signaled as a train.
6. The sanction of CRS shall be available for working a TTM on the relevant section.
7. The TTM shall not be permitted to work during Total Interruption of Communication.
8. The TTM shall be allowed to work during Traffic block period only.
9. The person in charge shall inform the SM in writing where he intends to stop in the mid section, whether he will proceed to next station or return to the starting station.
10. The SM shall issue authorities as follows:

- Work & return = T / 465
- Work & clear next block station = T / A 465

When more than one machine is permitted

- T / 465(1st TTM) and CO s (for following units) -(return to same station) or
 - COs for preceding and T / A 465 (last unit) (proceeding to next block station)
 - the person in-charge shall personally supervise the movement by travelling in the rear most machine.
11. The maximum speed of the TTM shall not exceed 40 KMPH, in block section and 10 KMPH over points and crossings.
 12. If it is required to push back the following precautions shall be observed ,
 - a) The official in-charge shall travel in the leading machine exhibiting hand signals to the following machine,
 - b) The speed while pushing back shall not exceed 25 KMPH,
 - c) The official in-charge of leading machine shall be responsible to ensure the all L/C gates are closed against road Tfc before passing,
 - d) On Double line the In-charge shall stop the machine at LSS of the line or opposite to FSS of the adjacent line. Machines may be received on pilot in memo after ensuring that all points are correctly set and facing points are locked. On single line stop at FSS and machines may be received by taking off signals.

- e) On arrival at the station the In-charge shall sign in the TSR in token of complete arrival of the unit/ Units,
- f) Only after this the SM shall clear the Block Section.

Stabling

- 13. The SM shall arrange stabling of TTM in consultation with SCOR,
- 14. It shall normally be stabled on a non running line,
- 15. When a TTM is stabled on running line, the mechanical hand brakes shall be applied, chained to the rails, lever collars/ slide pins shall be used, no shunting shall be permitted on to that line,
- 16. A TTM shall not be moved inside the Tfc yard without the permission of SM and into the LOCO yard without the permission of CCC.

XVI. Brake power certificate (freight trains) (C&W JPO NO. 5/2008)

- It is a certificate to be prepared in duplicate by TXR after examining the formation
- It will be signed by TXR, guard and loco pilot for goods train.
- It should be possessed by the LP till the train completes its journey
- There are only 3 types of examinations in SCR
 - CC rake examination
 - Premium end to end examination
 - End to end examination

CC rake examination (Periodical Monitoring Examination)

- Formed from air brake stock only.
- 100% brake power during PME.
- Validity – 7500 kms or 35 days whichever is earlier
- Black Rocket, Red Star, Green Arrow, Red arrow, Blue Flame, Galaxy etc. are some examples of CC rakes,
- The rake will move over any station to any station in the zones mentioned on BPC
- LP must record the km run and sign with name, base and date, other wise BPC valid for 20 days only
- The integrity of rakes to be maintained and any changes to be done only during PME at base depot only
- BPC colour shall be yellow

Premium end to end examination

- Formed from air brake open and covered stock only
- Examination points – BPA, RDM, GY, nominated lines of BZA, COA, SNF
- BPC is valid for 12 days
- Brake power – 95%

- Colour of the BPC - green
- To avoid examination in loaded condition 3 days grace period is permitted.
- After a lapse of 15 days even a loaded premium rake shall be offered for examination at the first TXR point in the direction of movement
- Loading after 12th day should not be permitted.

End to end examination

- This is for all stocks
- Validity – up to loading point & further up to unloading point.
- At loading point, the operating/commercial staff shall ensure that the destination is mentioned on BPC
- Green colour BPC – air brake
- Brake power –90 % - air brake
- Pink colour BPC – vacuum brake
- Rake power –85 % - vacuum brake
- Empty (vacuum) rake must reach the loading point within 4 days including the day of issue.

Intensive examination for material train

- Must have a nominated base depot
- Trains must touch the base depot at least once in a month
- Brake power – 90%
- BPC valid for one month subjected to the TXR staff endorsement once in a week

BPC become invalid

cc rakes

- Rake integrity disturbed by more than 4 VUS at base depot
- Stabled for more than 24 hrs at any station except loading/un loading point.
Moved to any zone not mentioned in BPC
- Over due rakes is not moved in the direction of PME depot
 - Running more than 35 days/7500km

premium rakes

- Rake integrity disturbed by more than 4 VUS
- Stabled for more than 24 hrs at any station except loading/un loading point.
- Moves for loading after 12 days
- Empty rake running after the 12th day.

End to end rakes

- Rake integrity disturbed by more than 4 vus/ 10 FWU
- Stabled for more than 24 hrs at any station except loading/un loading point.

- Destination station not mentioned
- Un signed corrections of destination name
- Empty (vacuum) rake must reach the loading point within 4 days including the day of issue.

XVII. GLP check - circumstances

- i. At the station after loading/un-loading or tippling (where there is no TXR) or while clearing stabled stock from a station, or in case of in valid BPC, the GLP check shall be conducted.
- ii. At every loading point, BPC revalidation should be done by GLP check for all type stocks except steel consignment (TXR examination)
- iii. Un loading point(post tippling examination) GLP check have to be done at ICL/KMH, L&T/JUR, YA & RTPP/MOO
- iv. For end to end rakes, if the unloading point is not a TXR point.
- v. When the due cc rake is detected in loaded condition it shall be subjected to GLP check and pushed to destination. From there it shall be offered for examination
- vi. Detected in empty condition it shall be pushed to nearest TXR point
- vii. After examination it is permitted up to base depot only.(endorsement)
- viii. Where back loading is done at a non TXR station.

Running of trains on GLP check will be permitted only up to first train examination point in the direction of movement. The distance does not exceed 400km

GLP check list

1. Rake integrity is not disturbed by more than 4 VUs. Only intensively examined wagons given fitness by TXR may be attached.
2. All CBCs and Air hoses are properly coupled and locked
3. All the cut off angle cocks are in open condition
4. The last cut off angle cocks in closed condition.
5. Empty/load device handle is in proper position.
6. There are no loose fittings/hanging parts like push rod, pull rods, break beam, safety brackets, brake blocks and CBC operating handle etc. which may endanger safe running of the train.
7. There are no broken or displaced springs.
8. There are no displaced Elastomeric pads.
9. Hand brakes are released
10. Doors of wagons are closed and locked/secured
11. Ensure visually that there is no excessive body bulging, which is dangerous.

12. Any symptoms of Hot axle like de- colourisation of bearing, heavy grease oozing, breakage of axle box cover plate, end plate etc.
13. Any other abnormality noticed which may endanger the safety and action taken.
14. Continuity of the brake pipe pressure is confirmed through VHF/Whistle code before starting the train.
15. Efficiency of brake power
16. Percentage of brake power

$$\frac{\text{Total No. of Cylinders} - \text{Number of in operative cylinders}}{\text{Total No. of Cylinders}} \times 100$$
17. Time allowed for checking is 30 minutes for 60 units.
18. If train is without guard LP only shall conduct check with the assistance of points man. In such case time allowed is 60 minutes for 60 units.
19. Guard and Loco pilot shall prepare a memo jointly on a plain sheet in triplicate indicating the brake power and deficiency, if any, and shall append their signatures and both of them shall retain a copy of the same. Guard should obtain SM/YM's endorsement on two copies of joint memo and hand over the third for SM/YM's record.
20. SM/YM will inform the section controller and obtain clearance for the train to move.

PROFORMA FOR GLP CHECK

1	Date	:	
2	Train & Loco No.	:	
3	From.....	To	
4	BPC No. ,Date & Station of issue	:	
5	Loaded at	Or	Tipped at
6	Time of locomotive attached	:	
7	Total Load	:	
8	Air/Vacuum levels	TE.....	BV.....
9	Brake power percentage.....	No. of cyl...	No. of IOP's
..... (Signature of LP)		 (Signature of Guard)	
Name.....		Name	

I. Station Working Rules (G.R.5.06 and Appendix XIV)

1. Station Working Rules applicable to each station shall be provided under special instructions.
2. A copy of SWR or relevant copies of extracts shall be kept at cabins.
3. Relevant Rules for working of LC gates shall be made available at gates in Regional languages also..
4. SWR shall be read in conjunction with G & SR and Block Working manual and language shall be simple and brief.
5. SWR shall be prepared carefully keeping in view the conditions prevailing at the station.
6. Only relevant rule numbers of GR / SR shall be mentioned in the brackets against relevant Para.
7. The SWR pages shall be numbered, station name, code shall be written on every page and on every page it shall be signed by Sr. DOM / DOM, Sr. DSTE / DSTE at Interlocked station and at Non Interlocked station by Sr.DOM/DOM and Sr.DEN/DEN.
8. Temporary working instruction for non interlock working shall be signed by Sr. DOM / DOM, Sr. DSTE / DSTE and Sr.DEN/DEN.
9. Station diagram in the SWR shall be signed by Sr. DOM / DOM, Sr. DSTE / DSTE and DEN.
10. The SWR's of all stations including stations to be newly opened and amendment slips shall be issued by the Sr.DOM / DOM and Sr. DSTE / DSTE who shall be responsible to ensure that these are correct, complete and current.
11. Rules for working of trains in electrified section will be given in Appendix 'G' and it shall be jointly signed by Sr. DOM / DOM and Sr. DEE [TRD] / DEE [TRD].
12. The working rules for the level crossing gates situated out side the stop signals and also the procedure to be followed by the gateman shall be issued by the Engineering branch and kept at the gate lodge.
13. A copy of working rules shall be kept at each level crossing gate in regional language.
14. In case of a level crossing gate provided with gate stop signal, a copy of a signalling and inter locking shall also be made available at such gate.
15. Approval of CRS shall also be obtained where required before issuing SWR.
16. SWR shall be issued fresh once in FIVE years or after issue of FIVE amendment slips and reviewed as and when required.
17. The information in SWR shall be as per the format and working rules for cabins working independently shall be issued separately.
18. The staff before taking up independent duty shall read, understand the SWR and sign in the declaration / assurance register.

19. In case of Illiterate staff the SM shall explain the rules in vernacular language and take their acknowledgement in the register duly certifying that they understood the rules.
20. Fresh declaration shall also be taken from the staff when a member joins or when there is a change in the SWR or staff resumes duty at a station after an absence of 15 consecutive days or more.
21. TI / SWR before preparing the draft instructions for SWR shall compare the Station diagram with actual lay out and discuss with the SMR / SS / SM of the concerned station.
22. One copy of the SWR along with signalling plan shall be sent to the CRS for approval and Two copies of each station to the COM.
23. The SWR contains 12 chapters and 7 appendices and they are,

LIST OF CHAPTERS

- I. Station working diagram
- II. Description of station
- III. System and means of working
- IV. System of signalling and interlocking.
- V. Telecommunications
- VI. System of train working
- VII. Blocking of lines
- VIII. Shunting (various precautions and authorities)
- IX. Abnormal conditions
- X. Visibility test object
- XI. Essential equipment at stations
- XII. Fog signal men nominated to be called in case of fog

LIST OF APPENDICIES

1. Appendix 'A'- Working of Level crossing Gates
2. Appendix 'B'- System of signalling and Interlocking and Communication Arrangements at the station
3. Appendix 'C'- Anti collision Device [Raksha Kavach]
4. Appendix 'D'- Duties of train passing staff and staff in each shift.
5. Appendix 'E'- List of Essential Equipments provided at stations.
6. Appendix 'F'- Rules for working of DK station, Halts,IBH,IBS and Out Lying sidings.
7. Appendix 'G'- Rules for working of trains in Electrified sections.

II. Reception of a train on an obstructed line (G.R.5.09)

In case of reception of a train on an obstructed line, the SM shall

1. Wherever possible intimate the Loco Pilot through the rear SM about the reception on an obstructed line.
2. Keep the reception at 'ON' ensure that the signal/s are not taken 'OFF'
3. Ensure that all points leading to said line are correctly set and facing points locked.
4. After stopping the train at the relevant stop signal, it may be received by authorizing the Loco Pilot to pass the stop signal at 'ON'.
5. By taking off the calling-on signal, if provided or
6. Through signal post telephone if provided or
7. By delivering a written authority (T/509) and piloting it.
8. Stop the train at facing point leading to the obstructed line until hand signalled forward by a competent railway servant.
9. Stop hand signal shall be shown at a distance of 45 m. from the obstruction.
10. The Loco Pilot shall keep his train well under control and be prepared to stop short of an obstruction (not exceeding 15Kmph).

III. Reception of a train on a non-signalled line (G.R.5.10)

- **SM** shall ensure that
 - a) The train is brought to a stand at FSS.
 - b) The line is clear up to the trailing points or up to the place at which the train is required to come to a stand.
 - c) All the points are correctly set and facing points locked
- Loco Pilot is authorised to pass signal at 'ON' through T/509 and pilot the train by competent railway servant
- The Loco Pilot shall proceed cautiously and be prepared to stop short of any obstruction (not exceeding 15Kmph).

IV. Departure of a train from non-signalled line. (G.R.5.11/12)

- All the points have been set and lock the facing points.
- SM shall obtain Line Clear.
- Issue authority to proceed to the LP (if ATP is not tangible T.511 also shall be given).
- If a line is provided, with common departure signal in addition to ATP, a written permission for start (T.512) shall be given and common departure signal shall also be taken 'OFF'.

V. **SHUNTING**

- 1) Shunting means the movement of a vehicle or vehicles with or without an engine or of an engine or any other self-propelled vehicle for the purpose of attaching, detaching or transfer or for any other purpose. The following are the kinds of shunting:
- 2) **Flat Shunting:** When vehicles are shunted by continuous forward and backward movements the locomotive remaining attached to the vehicles, it is known as flat shunting.
- 3) **Loose shunting:** means pushing of vehicles by an engine and allowing them to run forward with the engine un-attached.
- 4) Loose shunting of or against empty or loaded oil tank wagons, trucks loaded with heavy machinery/rails/timber, cranes, loaded explosive vans, livestock wagons, wagons labelled 'not to be loose shunted' coaching vehicles etc., is prohibited.
- 5) **Fly shunting:** It is a shunt movement in which two or more vehicles are given a push by an engine and or separated the points by the smart reversal of points within the vehicles in order to send them on to different lines. Fly shunting is allowed only in hump yards.
- 6) **Hump shunting:** It is a kind of fly shunting in large yards where the shunting neck has camel hump to create an artificial gravity when wagons are pushed to its apex by the shunting engine and then detached; they roll down to specific classification lines by the force of gravity because of the steeply falling gradient towards the classification lines.
- 7) **Hand shunting:** Movement of vehicles from one place to another by employing manual labour is called hand shunting

VI. **Control and responsibility for shunting (G.R/S.R 5.13/5.14)**

- 1) Shunting operations should be controlled by fixed signals or hand signals or by verbal instructions.
- 2) The Loco Pilot shall , before moving on the stop signal taken off for him, observe the hand signals of the railway servant conducts shunting. The shunting staff need not accompany during shunt movements of light engine(s) on to a free line governed by fixed signals
- 3) At the stations where separate shunting staff are employed, they shall attend to all shunting operations and at all other stations shunting operations shall be supervised by Guard.
- 4) In the case shunting of trains from one line to another across main line or wagons containing explosives the shunting operations shall be carried out under personal supervision of SM.
- 5) Loose shunting of or against empty or loaded oil tank wagons, trucks loaded with heavy machinery/ rails/timber, cranes, loaded explosive vans, livestock wagons, wagons labelled 'not to be loose shunted' coaching vehicles etc., is prohibited.

- 6) Carriages occupied by passenger shall not be moved for shunting purposes without the orders of the SM and also the Guard of the train who will jointly responsible to warn and prevent accident to the passengers in the carriage or those who entrain or detrain thinking that the train is leaving.
- 7) In the case the shunt movements are governed by shunt signals or starter signal, which detect the facing points, the shunt signal or starter shall be taken off and in all other cases the facing points shall be clamped/cotter bolted and pad locked.
- 8) Outer, Home and LSS shall not be taken off for shunting purpose.
- 9) The speed during shunting operations shall not exceed 15kmph. In case of vehicles contains inflammable liquids, explosives. Coaching vehicles speed is restricted to 8kmph.
- 10) Slip coaches shall not kept on blocked line in the rear of passenger carrying trains.
- 11) No engine should be allowed on any running line at a station occupied by a train carrying passengers, except train engine or banking engine or shunting engine.
 - If it is unavoidable to allow the engine(s) in rear of a passenger carrying train, such engine(s), shall be accompanied and hand signalled by shunting staff and stopped in rear of passenger carrying train at a safe distance.
 - The Shunter/Loco Pilot of light engine(s) shall be informed
 - All such light engine(s) should not be left unmanned .
- 12) When shunting is carried out for attaching/detaching the coaches/slip coaches/saloons/dead engines on passenger carrying trains, shunting engine with or without coaches shall first come to a halt 20mts away from the train and there after perform shunting carefully.
- 13) When vehicles moved by an engine for attaching to passenger train, the vacuum brake shall be connected up so that adequate brake power shall be available.
- 14) In case of shunting on goods trains at intermediate station the vacuum brake shall, as far as possible, be connected with engine.

VII. Shunting on steep gradient: (G.R/S.R.5.20)

- i. Gradients of 1 in 400 or steeper and 1 in 260 or steeper are considered as steep gradients in respect of roller bearing stock and other than roller bearing stock respectively.
- ii. At a station yard where the outer most points are on a steep gradient, shunting shall be done only with the engine attached towards the falling side of the gradient.
- iii. Hand shunting of the roller bearing stock is prohibited at a yard where the outer most point are on or with in 100mts of a steep gradient.

VIII. Different authorities to be given for shunting on class 'B' station.**(i) Single line (Appendix XII)**

- **Within Station Section :** T/806*
- **Beyond Station Section up to Opposite FSS**
 - In Token Section - T/806
 - In Token Less Section - T/806* + SHK or T/806 + P.No.
- **Shunting beyond opposite FSS:**
 - a. Treated as Train movement
 - b. Loco Pilot shall be given
 - i. ATP
 - ii. Manuscript memo to push back +T/806*
 - iii. All Signals shall be taken OFF
- **Shunting in the face of an approaching train:** Generally not permitted. Where permitted the following conditions shall be fulfilled.
 - Permission is indicated in SWR,
 - SLB/Advanced Starter is provided,
 - Shunting warning board is provided in rear of FSS.

(ii) Double line

- **Shunting within station section:** T/806*
- **Shunting beyond LSS (When block section ahead is free of train)**
SM shall block forward and issue
 - T/806* + LSS Lever Key if any or
 - T/806* + Taking OFF Shunt Signal below LSS if any Or
 - T/806 + P.No.
- **Shunting beyond LSS (Following a train):**
 - It should be permitted by SWR
 - Same as above without a P.No. in T/806.
 - As soon as the preceding train clears the section, the line should be blocked forward, if the shunting is not completed.
- **Shunting into block section in rear:**
 - The line should be blocked back
 - T/806 + P.No.

* Where shunting operations are supervised by Guard/Assistant Station Master, Loco Pilot shall be given Form No.T/806 (Shunting Instructions Form) duly filled in.

****At major stations where separate staff viz., out door Station Master/Yard ASM/AYM/ Shunting Jamedar/Shunting Master are provided for supervising the shunting, Form No. T/806 need not be given. Such stations shall be notified by the respective Sr.DOMs.**

IX. Stabling on running lines (G.R./S.R.5.19)

- 1) Vehicles detached from a train shall not be allowed on a running line for a longer period than absolutely necessary.
- 2) They shall be coupled together and all the necessary hand brakes of vehicles and brake van to be applied.
- 3) Vehicles not provided with hand brakes shall be secured by chains.
- 4) At night, the side and tail lamp of coaching vehicles at both ends shall be switched on. If not, fix hand signal lamp showing red at both ends. In case of goods vehicle berthed on main line tail lamps, if available, duly lit, shall be fixed at both ends during night time.
- 5) Red ink entry shall be made in TSR.
- 6) The SM shall advise and exchange private numbers with cabin ASMs when running line is occupied and cleared.
- 7) The occupation of running lines shall be recorded in the station dairy at the time of handing over and taking over charge.
- 8) Whenever possible, track machines should be stabled on non- running lines or on lines which are isolated from other running lines. When the track machine is stabled on a running line due to unavoidable circumstances, the mechanical hand brake shall be applied and the machine shall be securely chained to the rails.

X. Precautions before detaching engine within station limits (S.R.4.57.1)

The SM/Guard is responsible to ensure that the hand brakes of the vehicles are applied before the engine or brake-van is detached from the train.

At station, if the gradient is not steeper than 1 in 600, the hand brake of the brake-van or in the absence of the brake – van, hand brakes of 6 vehicles shall be applied.

If the gradient is steeper than 1 in 600 but not steeper than 1 in 260, hand brakes of brake – van and 6 vehicles or 12 vehicles shall be applied.

If the gradient is steeper than 1 in 260, the hand brakes of the brake-van and 12 vehicles or 18 vehicles shall be applied.

XI. Precautions to be observed during stabling and securing of vehicles/formation (G.R./S.R.5.19, 5.23)

Action by SM/Traffic Staff when vehicles/load/train is to be stabled at station:-

1. Vehicles/load/train shall be inside the fouling marks
2. Vehicles/load/train be chained and padlocked using at least two chains,
3. one at either end.

4. Atleast four wooden wedges/iron skids be used, two each below the outermost pair of wheels at either end;
5. Hand brakes of at least 6 wagons from either end must be fully tightened.
6. If hand brakes of any of the first six wagons at each end cannot be applied, hand brakes of subsequent wagons should be applied till six wagons in total are achieved.
7. In case coaching vehicles are stabled, Guard's hand brakes in SLR(s) must be applied.
8. The hand brakes must be operated under the personal supervision of the Guard, and in the absence of Guard, by SM/ASM on duty;
9. All the vehicles of stabled load/train should be coupled together.
10. In case the stabled load has to be split for any reason, each such split part should be treated as a separate load for the purpose of securing;
11. The points must be set, clamped and padlocked against the blocked line and towards dead end or trap point (if available).
12. The padlock keys of the Safety Chains and clamps shall be in the personal custody of the SM.
13. Line Block Collars must be placed on relevant signal/ point buttons/ slides/ levers etc.,
14. Remarks should be made in TSR and SM diary in Red ink to the effect that 'Line No.____' is blocked and all precautions for securing the load have been taken' as prescribed above;
15. After any load/train/loco is stabled, the SM must inform the SCOR supported by private number that all laid down precautions for stabling and securing the load/train/loco have been taken.
16. At stations with gradient steeper than 1 in 400 additional precautions have to be taken prescribed under approved special instructions (by CRS) and mentioned in SWR of respective station.
17. LP should not leave the loco unmanned while on duty.
18. If LP is required to leave the loco unmanned he can do so only after getting a written permission from SM.
19. SM should given permission only after Loco is secured
20. In case load/train is stabled with locomotive attached or light engine(s) is/are shut down or stabled
21. SM has to give a written authority for unmanning loco
22. Before leaving LP to ensure securing of loco by
23. Application of SA-9 (Loco brake) and A-9 (Formation brakes) brakes;
24. LP to apply hand brake and parking brake;
25. Secure the loco with wooden wedges/iron skids provided on the loco;
26. Before leaving the Station/Yard, the Loco Pilot and Guard should jointly sign record in the stabled train register to be maintained with SM.
27. If the Loco is not stabled with the formation only guard has to sign in the stabled load register.

XII. Important Operating forms and their significance?**1. T.369 (3b) AUTHORITY TO PASS STOP SIGNAL AT 'ON'**

- Authority to pass defective Outer/Home/Routing Home /Starter/Intermediate Starter/Advanced starter/IBS/Shunt Signal at 'ON'
- Printed on white paper, blue font
- Prepared in two foils LP/Record
- Speed restricted to 15 KMPH
- Signal Description and Number, line of admission mentioned
- Station name, date SM signature with stamp available.

2. T.369 (1)(ADVANCE AUTHORITY BY REAR/NOTICE STATION

- Advance authority to pass defective signals at next station
- Issued by SM of rear station
- White paper blue font
- Two foils- record/LP
- SR-15 kmph after passing the defective signal
- LP to pass defective reception signal at 'on' observing PHS at foot of signal
- Station name, date, SM signature and stamp available

3. T.409 (DIVISIONAL/SECTIONAL CAUTION ORDER)

- It is Divisional/Sectional Caution Order
- White paper blue or black font
- Prepared in four foils- record/LP/ALP/guard
- Station name, date, SM signature with stamp available.
- Stations between, km, speed to be observed and reasons mentioned in geographical order given.

4. T/A 409('NIL' CAUTION ORDER)

-  It is 'NIL' caution order
-  White paper , blue or black font
-  Issued four foils LP/ALP/GD/record
-  Issued at notice station
-  Station name, date, SM signature and stamp available.
-  Issued when there are no speed restrictions between two notice stations

5. T/462(AUTHORITY FOR MATERIAL TO WORK AND RETURN TO SAME STATION)

- ❖ Authority to proceed for material train

- ❖ White paper blue font
- ❖ Prepared in triplicate, record/LP/Guard
- ❖ Authority to go upto km, stop, work and return to the originating station.
- ❖ It has line clear ticket, authority to pass LSS at 'on' and CO
- ❖ Station name, date, SM signature and stamp available

6. T/A.462 (AUTHORITY FOR MATERIAL TRAIN TO TO WORK AND CLEAR TO NEXT STATION)

- Authority to proceed for the material train.
- White paper, blue font
- Issued in three foils record/LP/GD
- Authority to go up to km, stop, work and proceed to next station.
- It contains line clear ticket, authority to pass LSS at 'ON' and CO
- Station name, date, SM signature and stamp available

7. T/A.602 (AUTHORITY FOR LP TO ENTER OBSTRUCTED BLOCK SECTION)

- ✓ Authority to proceed for relief engine/train into obstructed block section
- ✓ White paper with red font
- ✓ Direction up/dn written
- ✓ Prepared triplicate LP/GD/Record
- ✓ It contains
- ✓ Block ticket to proceed W/O L/C
- ✓ Authority to pass LSS at 'ON'
- ✓ CO 15 KMPH when view is clear and 10 kmph when view is not clear and co up to point of obstruction.
- ✓ LP, guard to acknowledge.
- ✓ Station name, date, SM signature with stamp available.

8. T/B.602 (AUTHORITY FOR LIGHT ENGINE TO OPEN COMMUNICATIONS)

- Authority for opening of communications during TIC on S/L
- White paper red font
- Prepared in two foils record/LP
- LP , GD to acknowledge in columns.
- Contains ATP W/O L/C, authority to pass LSS at 'ON' CO-15/10 KMPH Day/Night, Line Clear Enquiry Message and Conditional Line Clear message(with PN)
- Station name, date SM signature and stamp available.

9. T/C602 (AUTHORITY FOR TRAIN ON DOUBLE LINE DURING TIC)

- Authority for working of trains during TIC on D/L
- White paper red font
- Two foils- LP/Record
- Contains ATP W/O L/C, authority to pass LSS at 'ON', CO- 25/10 KMPH
- Acknowledgement of LP and GD taken
- Station name, date, SM signature with stamp given

10. T/D.602 (AUTHORITY FOR TRAIN DURING TSL WORKING)

- ✚ Authority for temporary single line working on D/L
- ✚ White paper red font
- ✚ Triplicate LP/GD/Record
- ✚ Contains L/C Ticket, Authority to pass LSS at 'ON', CO -25 KMPH(1ST TRAIN),line of TSL and place of obstruction & assurance that trap points are clamped and pad locked
- ✚ Station name, date, SM signature with stamp available.

11. T/609(AUTHORITY FOR TAKING PORTION OF TRAIN IN DIVEDED TRAIN WORKING)

- ❖ Written permission given by guard to LP when engine or portion of train allowed to proceed to next station from mid section
- ❖ White paper blue font
- ❖ Two foils LP/Record
- ❖ No. Of vehicles and painted no. Of LV mentioned
- ❖ I It is authority for L/E to return back (with the signature of SM) to clear the 2nd portion from block section

12. T/806(SHUNTING ORDER)

- Shunting order
- White paper blue font
- Triplicate LP/GD/Record
- STN name date/time, SM signature with stamp given
- Instructions column available
- Authority to pass Signal at ON available.
- Acknowledge of LP and GD taken

13. T/C.1425 (UP PLCT)

- Paper Line Clear Ticket(UP)
- White paper blue font
- Two foils Record/LP
- ATP to go to next STN with PN mentioned

- Contains authority to pass LSS at 'ON'
- Station name, date, time, SM signature with stamp available
- Arrow mark upward on background

14. T/D 1425(DN PLCT)

- ✓ Paper Line Clear Ticket(DN)
- ✓ White paper blue font
- ✓ Two foils Record/LP
- ✓ ATP to go to next STN with PN mentioned
- ✓ Contains authority to pass LSS at 'ON'
- ✓ Station name, date, time, SM signature with stamp available.
- ✓ Arrow mark downward on background

15. T/A 912(AUTHORITY FOR PASSING INTERVENING AUTOMATIC SIGNALS)

- Authority to pass Automatic/Semi Automatic/Manually Operated/Gate Stop Signals at 'ON'
- White paper blue font
- Two foils, LP/Record
- STN name, date /time, SM signature with stamp given
- Description of signal with No.s mentioned
- Acknowledgement from Guard and LP taken

Note: Before issuing any authority the SM shall ensure

1. All the relevant columns in the authorities are filled correctly, legibly and complete.
2. Station names to be written in full and no codes used
3. PN, Last Train particulars, Description and Number of signals written clearly wherever required.
4. While issuing PLCT ensure T/A.1425 'A' column is filled and sent along with PLCT(i.e.T/C.1425 or T/D.1425)
5. Ensure the authorities are kept at such places so as to be easily located during the failure and they must be serially numbered before and carbon kept ready in the books.
6. If the authorised printed form is not available, a manuscript form containing all the particulars as the prescribed form is issued as an emergency measure, reasons to be recorded in the station diary.
7. In case of T/A to T/H 602, T/J 602, T/609, T/A to T/D 1425, T/A to T/D 912, T/A 1525 and T/1525, the prescribed printed forms shall only be used.

I. LURCH/Conditions likely to affect running of Trains (S.R.6.07)

If a Loco Pilot experiences any unsafe condition of track including lurch, he shall,

1. Note the KM,
2. Stop his train at the Home signal of the next block station and inform SM through available means of communication.
3. In case of IBS and Automatic block territories, he must inform the SM and LPs of trains already left station in rear, to stop movement of trains,
4. In case of Automatic block territory stop the train and take steps to protect that spot as per SR 9.10 without clearing automatic signaling section.
5. Proceed further only after ensuring that SM understood the situation
6. Stop his train at station at a convenient place and deliver a written memo to SM,
7. SM shall issue message to SM in rear, JE/SE (P-way), AEN, DEN, DOM and SCOR.
8. The SM shall then arrange to dispatch by Rail, Maintenance Machine/Tower wagon/Light Engine or in their absence a train accompanied by Engg Official,
9. The LP shall be given a caution order to stop short of the effected KM
10. The Engg official will inspect the track and shall allow the train to pass only after satisfying that the track is safe for the passage of train,
11. Advise the condition of the track and speed restrictions if any to SM,
12. In the absence of Engg official the train may be sent in to the section with a caution order to the LP to stop dead before the affected KM and to pass at 10 KMPH only after satisfying himself that it safe for him to pass,
13. If he finds the line unsafe to pass, return to the station in rear,
14. If the LP is not able to detect anything doubtful, subsequent trains shall be dispatched with a speed restriction of 10 Kmph till the track is certified to be safe by Engg officials,
15. If LP reports same unsafe condition, no train movement shall be allowed till certified to be safe by Engg officials.
16. If guard experiences any of the unsafe conditions, he shall inform LP and same procedure shall be followed.
17. If LP/Guard experience any obstruction or any other unsafe condition on or near the track adjacent to the line over which his train has passed , and if in his opinion it is unsafe for train running, will take the following action,
18. Immediately switch on the flasher light of his Loco,
19. Inform SM/Control through available means of communications,
20. Stop his train and proceed with danger hand signals and protect the line,
21. LP will continue his journey to the next station cautiously keeping flasher light ON and

22. Be prepared to stop any incoming train by communicating on available means of communications and exhibiting stop hand signal.
23. If information of Sabotage or likely sabotage, Bomb blast, Explosion etc, is received, SM shall stop movement of trains into the affected block section as well as adjacent lines on Double/Multiple lines sections.
24. SM to consult SCOR and may despatch only Rail Maintenance Machine/Tower Wagon/Light Engine accompanied by Engg official.

II. Rail fracture (S.R.6.01)

1. If a Loco Pilot realizes, while on run that there is rail fracture, he shall
 - a) Stop the train and protect the train.
 - b) Examine the track
 - c) If considers safe, proceed.
 - d) If unsafe, inform SCOR and SMs and wait till Engg official certify fit.
2. mate / key man /patrolman detects rail fracture of less than 30 mm gap he shall show stop hand signals and inform Loco Pilot of first train to pass the fracture spot at 10 Kmph and subsequent trains at 15 Kmph.
3. Loco Pilot of the first train shall stop his train at the next block station and give memo about the rail fracture.
4. SM, who received report from Loco Pilot about the rail fracture, shall inform the SM of the station at other end of the block section.
5. Both the SMs shall arrange issue of caution order to trains to observe an SR of 15 Kmph and also advise all concerned.
6. If the gap is more than 30 mm or multiple fractures, only PWM/PWI can pass the trains after attending the rail fracture.

III. Train engine disabled in the block section (S.R. 6.05)

1. When an engine is disabled, the Guard shall ascertain from the Loco Pilot whether relief engine is required or not.
2. If the Loco Pilot expects that putting the engine in working order will take more than 5 minutes, he will request Guard to arrange for a relief engine.
3. The Guard advises the Station Master.
4. The Guard / Loco Pilot shall contact Station Masters/SCOR/TPC telephonically, advise the location (Kilometreage) of engine and brake-van and ask for relief engine.
5. If Guard / Loco Pilot cannot contact Station Masters/SCOR/TPC telephonically, the Assistant Guard/Assistant Loco Pilot/Guard shall walk to the nearest station or send the message through the Loco Pilot of a train proceeding on an adjacent line and ask for relief engine

6. Once relief has been asked for, the Loco Pilot of the disabled train, even if the engine on the train is fit to move subsequently, should not move unless he intimates the same and obtains an assurance from the Station Master to the effect that no relief engine or train has moved into the obstructed block section.
7. If loco of passenger carrying train fails in the section, train shall not be divided

IV. Block Ticket (S.R.6.02.5)

1. To Despatch a train on wrong line on double line [other than TSL working], the SM shall issue a block ticket.
2. The line shall be blocked back.
3. A caution order also be issued indicating the following
 - a. Speed - 15 kmph when view is clear and 8 kmph when view is not clear.
 - b. Ascertain the condition of the train over the adjacent line.
 - c. To look out for possible obstruction and take action accordingly.
 - d. Report at next station.
4. The SM of the other station shall not permit any obstruction out side the outer most points.
5. LP may return to same station if unsafe to proceed
6. The Loco Pilot shall also certify in writing whether the line is clear for introduction of TSL working Or not. Then SM can introduce the TSL working.
7. Only one train will be permitted.
8. Passenger carrying train is not allowed on Block Ticket.
9. It is prepared in form no. T/J 602.

V. Trains unusually delayed (G.R.6.04)

1. Trains are said to be unusually delayed when passenger carrying train does not arrive within 10 minutes and goods trains within 20 minutes after normal running time.
2. Guard and LP of train shall give information to nearest SM/TPC/SCOR through available means of communication.
3. SM shall advise SM in rear and SCOR.
4. SM shall stop trains from either end and on adjacent lines.
5. Warn LP's and Guards proceeding on adjacent line issuing with suitable caution orders.
6. The above action may be taken earlier also if necessary
7. Arrange to send competent Railway servant into block section to get information of whereabouts and condition of train and nature of assistance required.

8. Take necessary action as situation demands.
9. SCOR shall immediately alert stations where ART & MRT are located to be in readiness.

VI. Dispatch of relief engine/Relief train into an Occupied/obstructed block section in Absolute Block System and Automatic Block System (SR 6.02.6)

Despatch of relief engine/Relief train into an occupied/obstructed block section to assist the crippled or disabled engine/train

1. The authority in Absolute Block System is T/A.602 &
2. The authority in Automatic Block System is T/C.912
3. The authority contains
 - i. Authority to proceed without Line Clear to proceed up to the Point of obstruction and return back or go to the next station.
 - ii. Authority to pass signals at 'ON'
 - iii. Caution Order to observe 15 Kmph when view ahead is clear during day and 10Kmph during night and view ahead is not clear and Walking Speed preceded by one/two men on Double/Single line carrying Stop Hand signal and Detonators for ready use.
4. In Automatic Block System it must be ensured the line is free from the Block Station to the point of obstruction.
5. All movements carried out in consultation of SCOR.
6. SM at other end advised about the relief engine sent and clearance under exchange of PN.
7. LP advised of the obstructions, location of BV and Engine and station to which it has to clear.
8. LP to keep sharp lookout, whistle frequently and be prepared to stop short of any obstruction.
9. LP to bring stop short of obstruction and obey hand signals at the site.
10. While returning, LP to act according to the aspect of signal on single line.
11. While clearing the station on double line the LP to act as per the aspect of the signal on right line or stop the train at LSS of the same line or FSS of the other line whichever comes first and after points are set correctly piloted in on 'Pilot in memo'.
12. On arrival at the station the authority to be handed over the SM who shall keep with the station records.
13. Time of entering/clearing and restoration of normal working of the section shall be made in TSR in red ink.
14. Record of timing entering/clearing and restoration of normal working of the section made in TSR in red ink.
15. Before introduction of normal working SM's to

- i. Ensure Block section is free under exchange of PN.
 - ii. 'Track Fit' certificate to be obtained from Engineering Official in case of accident.
15. Whenever engine is pushing Rules for pushing back as per G.R. 4.12 to be observed.

VII. Procedure for working of trains during total interruption of communication on single line? (S.R.6.02.4)

In the event of total interruption of communication i.e. when line clear cannot be obtained by any one of the following means.

- i. Block instrument, Track circuits or Axle counters
- ii. Telephone attached to the Block instrument
- iii. Station to Station Fixed Telephone.
- iv. Fixed Telephone such as Railway Auto Phone or BSNL phone
- v. Control Telephone
- vi. VHF Set.

The following procedure shall be adopted for the working of trains.

1. Train shall be brought to a stop at station.
2. The SM who has trains to dispatch shall open communication with the SM of Block station other end by sending any one of the following vehicles in the order of preference.
 - a) Light engine
 - b) Train engine, after it is detached from the train
 - c) Motor trolley/Tower car - accompanied by guard or by off duty ASM
 - d) Trolley/cycle trolley accompanied by a guard or by off duty ASM
 - e) Diesel car/EMU/DMU after detraining the passengers.
3. Loco Pilot/Guard/ASM shall be advised of the circumstances and obtain acknowledgement from the LP/Guard/ASM
4. Loco Pilot/Guard/ASM shall be given T/B 602 (authority to open communication during TIC on single line) - to be prepared in duplicate.

This authority contains

- a. authority to enter into Block section W/O L.C.
- b. authority to pass departure signals at 'ON'
- c. caution order (15/10)
- d. line clear enquiry message – asking line clear for waiting trains
- e. conditional line clear message – line clear for light engine/vehicle with or without train to come back

- If line clear is required for more than one train LP shall be given T/B 602 and T/E 602(line clear enquiry message)
 - If light engine or light engine with brake van is to be dispatched LP shall be given T/B 602 and items line clear enquiry message, condition line clear message shall be struck out.
5. Except LSS, all signals can be taken off.
 6. Loco Pilot shall be vigilant and proceed with 15 Kmph during day when view is clear and 10 Kmph during night.
 7. If view is obstructed train shall be piloted by two persons on foot with danger hand signals and fog signals.
 8. Tunnel shall be entered only after ascertaining that it is clear, headlight, lights of the engine shall be switched on.
 9. If two engines/vehicles meet in the section, the in charges decide the station to which they shall proceed, considering the importance of trains, distance of station, gradients, catch sidings etc.
 10. Engine/vehicles may either be coupled or may be loaded or may be followed.
 11. Loco Pilot shall stop at FSS. The engine or vehicle may be admitted either on signals or piloting.
 12. If train is held up at FSS LP shall send ALP after 10 minute and guard shall protect in rear.
 13. On arrival at station handover T/B 602 or T/B.602+T/E.602 to SM.
 14. The SM of other station shall give following documents to light engines with or without train.
 - a. Conditional line clear ticket T/G. 602(Up) or T/H. 602(Dn).-ATP for light engine with or without train.
 - b. Conditional line clear reply message T/F. 602- granting line clear for trains at other station.
 15. The Engine/Train while returning shall proceed with normal speed.
 16. The engine/vehicle on return shall stop at the FSS and there by it may be admitted on signals or piloting.
 17. CLC reply shall be handed over to SM.
 18. SM shall prepare conditional line clear ticket for waiting train.
 19. If line clear obtained for more than one train, second and subsequent train may be despatched after an interval of 30 minutes
 - First train may proceed with normal speed.
 - Each train shall be given CLCT.
 - For II nd and subsequent trains Caution Order shall be given to observe 25/10 kmph.
 - If there is even flow of trains, CLCM&LCEM shall be sent through guard f trains.

- An endorsement to be made on CLCT with particulars of the preceding and following trains.
 - Normally backing is not permitted. If unavoidable, the train may be backed after protecting by placing one detonator at 250m and two at 500m, 10m apart beyond the point up to which it is to be backed.
 - In case of accident, failure etc, Protection shall be done by placing one detonator at a distance of 250 m and two detonators at a distance of 500m 10m apart.
20. Trains must continue to work in this system till any one of the means of communication is restored by competent authority.
21. As soon as any one of the means of communication is restored, both SMs shall exchange messages in the form No. T/I 602 and ensure that no train in block section before resuming normal working.
22. Entries in TSR in red ink should be made.
23. TI of the section prepares and submits a report on working of trains during this period to DRM within 7 days of restoration of communication.

VIII. Procedure for working of trains during total interruption of communication on double line? (S.R.6.02.3)

1. In the event of total interruption of communication i.e. when line clear cannot be obtained by any one of the following means
 1. Block instrument, Track circuits or Axle counters
 2. Telephone attached to the Block instrument
 3. Station to Station Fixed Telephone.
 4. Fixed Telephone such as Railway Auto Phone or BSNL phone
 5. Control Telephone
 6. VHF Set.
2. The following procedure shall be adopted for working of trains
3. Trains shall be brought to a stop at station.
4. Guard and Loco Pilot shall be advised of the circumstances.
5. The SM shall issue T/C. 602 to the Loco Pilot.
6. This authority (T/C. 602) contains
 - a) Authority to enter block section without LC
 - b) authority to pass departure signal at ON
 - c) caution order - to observe SR of 25 Kmph when view is clear, 10 Kmph when view is not clear
7. Except LSS all signals can be taken off.
8. When view is not clear trains shall be piloted by Assistant Loco Pilot.

9. Tunnel shall be entered only after ascertaining that it is clear, switching on head light, marker lights.
10. If train stops in the section and cannot proceed further, it shall be protected by placing one detonator at 250 mts and two detonators at 500 and 510 mts.
11. During this period pushing back is not allowed. If unavoidable the train may be pushed back only after protecting [as mentioned above] beyond the point up to which backing is required.
12. The Loco Pilot shall stop at FSS (even off) and give a long whistle continuously.
13. If within 10 mts signals are not taken off or no one turns up, Assistant Loco Pilot to be sent to station and Guard has to protect in rear.
14. On arrival into the station ahead T/C. 602 shall be handed over to SM.
15. There should be clear interval of 30 minutes between the train that has preceded the one which has to follow.
16. Trains must continue to work on this system, till any one of the means of communications is restored by competent authority.
17. As soon as any one of the means of communication is restored, both SMs shall exchange messages in the form no. T/I 602 and ensure that no train in block section before resuming normal working.
18. Entries in TSR in red ink should be made.
19. TI of the section prepares and submits a report on the working of trains to DRM within 7 days of restoration of communication.

IX. Procedure for working of trains when one line is obstructed on double section? (S.R.6.02.1)

1. Whenever any line is obstructed on double line due to accident or any other reason, the traffic may temporarily be worked over single line
2. SM must have reliable information in writing that one line is clear for introducing TSL working and also consult SCOR and other end SM
3. If there is a doubt about clearance of track, ask PWI to certify the track.
4. If there is no reliable information in writing, train other than passenger carrying train may be despatched on block ticket(T/J.602) with a restricted speed of 15/8 kmph to get information.
5. TSL working shall be introduced between nearest stations provided with favourable cross over between up and down lines on either side.
6. Close the intermediate block huts if any, signal shall be kept in ON position.
7. Block instruments of both stations and C class stations, if any, shall be kept locked in TOL position.
8. SM proposing TSL working shall issue a message containing following information under exchange of PNs to SM of other end.

- Cause, line, source of information, place of obstruction, speed restrictions, name of the intermediate stations, assurance that all trap points are spiked/clamped and assurance that LSS/fixed signals are kept at ON, timings and particulars of the last train arrived/despached
- 9. LC will be obtained on block telephone or station to station fixed telephone or auto phone & BSNL phone or control telephone or VHF set.
- 10. Authority is T/D 602(authority for temporary single line working on double line section)
- 11. This authority contains line clear ticket, authority to pass LSS or any other signal at ON and caution order.
- 12. The maximum speed of first train over TSL working is restricted to 25 Kmph. An endorsement shall be made in the T/D 602 issued to Loco Pilot of I train to inform all gang men gateman, patrolman, OHE and Telecom staff about introduction of TSL working. The second and subsequent trains can proceed with normal speed.
- 13. In the T/D 602 Loco Pilot shall be informed about the line, Kilometreage of obstruction and any speed restriction, if any, and assurance about the setting of trap points.
- 14. When train is stopped on account of accident or engine failure or any other cause protection shall be done as per Rule 6.03
- 15. When train is starting from wrong line train shall be piloted out on 'Pilot out Memo' after ensuring that all points are correctly set and locked. Train shall be piloted out upto the last railing set of points.
- 16. On right line reception signal can be taken off.
- 17. On wrong line stop the train at LSS (wrong line) or opposite to FSS (right line) which ever comes first. A competent railway servant shall stop the train at the signal and pilot it by issuing pilot in memo after ensuring all the points are correctly set and locked.
- 18. If train is not admitted within 5 minutes, GLP to follow G.R. 4.44
- 19. Normal working shall be introduced only after obtaining written certificate from PWI and issuing message to other SMS under the exchange of PNs.
- 20. When double line working is introduced all Block instruments, IB signal and fixed signals shall be brought into use.
- 21. Entries in TSR should be made in red ink.
- 22. TI of the section must scrutinise all the records and submit his report to DRM within 7 days.

X. Loco Pilot entered block section without ATP. (G.R/S.R.6.06)

1. When Loco Pilot enters the block section without authority to proceed or improper authority to proceed, he shall immediately stop the train.
2. That train shall be treated as an obstruction in the block section & protect as such in accordance with Rule. 6.03.

3. Guard shall send the report of occurrence, explaining the circumstances to the nearest station through brakes man/Assistant. Loco Pilot.
4. When the report is sent to station in rear, the station master will issue PLCT to proceed to the next station duly suspending the Block working.
- 5., In case the report is sent to the station ahead, the SM shall immediately inform the control, and SM of other end of the block section, and send Caution Order as Authority for the train to proceed to the station.
6. On arrival of the train the SM shall intimate the station at the other end of the section supported by a PN to the effect that the train has arrived complete.

XI. Train parted in block - section (G.R./S.R.6.08)

1. The Loco Pilot shall keep first portion on run if possible until the rear portion come to a stand.
2. Loco Pilot shall sound — o — o whistle to inform Guard.
3. If it is necessary to proceed act as per the aspects of the gate/station signals.
4. Guard shall apply hand brake.
5. Loco Pilot of banking engine if available shall stop rear portion and give —o— o.
6. The Guard shall indicate the parting by waving in repeated motions a green flag by day or a white light by night up and down vertically as high and as low as possible.
7. If both the portions have come to a stand, the guard shall protect the rear portion as per the rules and take necessary precautions to secure the vehicles.
8. If it is possible and safe to couple the portions, the train shall be coupled with due caution otherwise it shall be worked in two portions by issuing T/609
9. It is necessary to proceed to station ahead; Loco Pilot shall give —o—o whistle repeatedly
10. SM shall admit the train on a vacant line, place 3 detonators to attract the attention of Guard and try to stop second portion by applying brakes/by heaping up earth or divert it to a vacant loop or siding line.
11. If SM notices train parting he shall wave a green flag by day or a white light by night up and down vertically as high as and as low as possible.
12. Tonnage shall be jointly checked by the guard and Loco Pilot and also by SM.

XII. Engine unable to haul the load.

Train shall be protected as per G.R. 6.03.

Clear the block section by one of the three alternatives

- a) ask for relief engine b) Push back c) divided train working

a) Ask for relief/assisting engine.(S.R.6.05.4)

- i) When engine is disabled ask for relief engine telephonically.
- ii) Once relief engine is asked, if the engine is rectified subsequently, he should not move unless he get permission from SM.

b) Push back: The train shall be pushed back after obtaining permission from SM in rear with 25/8 Kmph. Guard shall show continuously PHS.
(S.R.4.12)**b) Divided train working (G.R/S.R.6.09)**

1. Loco Pilot shall bring the train to a stop on a level gradient and give 0000 whistle.
2. Secure the rear formation by applying hand brakes
3. Guard shall prepare T/609, clearly Stating stating the number of vehicles and LV No.
4. Guard shall handover T/609 to Loco Pilot after collecting tangible authority if any and shall not keep tail board / Tail lamp on LV of first portion.
5. During night/thick and foggy weather time ALP to protect in rear and guard in front after departure of first portion
6. During night time Asst. Loco Pilot shall protect the train in rear and guard in front.
7. Loco Pilot shall stop train at home signal (even in off) or outermost facing point and whistle —0—0 repeatedly.
8. Then the SM and LP shall contact each other on VHF set then the SM will not clear block section and advise rear SM and train can be received on hand signals.
9. On arrival of first portion, SM and Loco Pilot shall verify the intactness with the help of T/609.
10. Then SM shall sign in the T/609. On T/609 light engine may be sent into block section, Loco Pilot shall not exceed speed of 25 Kmph.
11. During day time stop the engine on seeing stop hand signal of Guard. Attach the engine, release the brakes, call ALP and start the train.
12. During night/thick and foggy weather, stop the engine on seeing the stop hand signal of Guard, Guard shall pick up the 3 detonators, pilot the engine by riding on engine intermediate detonator (600M) shall be burst and LP shall stop the train when second portion is sighted. Guard will get down, pilot and couple the engine cautiously.
13. On arrival at the station, Guard and SM shall check the tonnage of the train.
14. If the engine of passenger train is unable to haul the load it will not be divided, ask for assisting/relief engine
15. In case train without Guard, LP shall prepare a written memo stating the no of vehicles in the first portion and last vehicle number of first portion. On arrival at the station Light engine may be dispatched on T/A 602 with a restricted speed of 15/10 kmph.

XIII. . Fire on passenger coach in mid-section. (G.R/S.R.6.10)

1. In case of fire, the first duty of any railway servant is to save lives and property
2. The train shall be stopped at once.
3. Detach the front portion of the vehicle behind the one on fire and move the front portion to a safe distance.
4. Then detach the vehicle on fire and move the front portion again to a safe distance.
5. If the train is with vestibuled stock, before isolating vestibule connections shall be disconnected.
6. The safety of the passengers shall first be attended to, the guard shall switch off electric connections.
7. Every effort shall be made to extinguish the fire by using fire extinguishers, water and soil/sand.
8. In electrified section. Water should not be used and special type of the extinguishers shall be used.
9. Fire is not extinguished ask for fire brigade through SM/SCOR.

Fire in a goods vehicle

Efforts must be made to extinguish fire using earth green grass, water soda, etc,

If fire cannot be extinguished, guard shall collect wagon labels and samples of goods, and make a spl. Reprt.

SM shall send report with brief particulars of damage to CCI, SM of destination DRM and CCM.

XIV. GR 6.03 Protection

- 1) When a train is stopped between stations on account of accident failure or other cause and cannot proceed further,
Loco Pilot shall apprise the guard of the fact by sounding the four short whistle repeatedly and exchange of danger signal with him. The guard shall fix red flag or reverse the side lights to show red towards the engine.

- 2) The Guard and the Loco Pilot shall take the following action

On single line

- a) The Guard either him self or competent person go back to protect the train.
- b) The person going back to protect the train shall, continuously. Show danger hand signal and place one detonator at 400/600 M and 3 detonators 10 M apart 800/1200 M on MG/BG from the train.
- c) After protecting guard or competent person continue to show danger hand signal until he is re-called.

- d) The Loco Pilot or Asst. Loco Pilot shall show danger signal to the front and protect the train in front in manner prescribed in 2b.
- Above procedure (d) may followed during TSL working on double line or when relief engine has been asked on double line

ON D/L section:

- a) The Loco Pilot or. Asst.Loco Pilot proceed to protect the adjacent line in front
- b) Loco Pilot or Asst. Loco Pilot shall place one detonator at 400/600 M. and 3 detonators NLT 800/1200 M 10M apart on MG/BG from train.
- c) Guard shall ensure protection of adjacent line in front and then send a competent person if available to protect the train in rear and shall him self proceed ahead to assist.
- d) Guard shall after ensuring go back to protect the train in the rear in the manner prescribed in 'b' if he has not already sent competent person.

In case it is not known whether the adjacent line is obstructed or not, LP shall protect adjacent line and Guard shall proceed to engine to check whether adjacent line is fouling or not. If adjacent line is obstructed, the Guard shall assist and ensure adjacent line protection. If not obstructed, the Guard shall after consultation with LP go back to protect the train in rear.

Twin Single Line:-

- The Loco Pilot shall protect the adjacent line in front guard shall protect the adjacent line in rear.
- Only after protecting in the rear guard shall proceed ahead to assist and ensure to protect the line in front.
- Protect the same line in rear.

Common Points.

- I. When guard / the person gone for protection, when called back he shall leave 3 detonators and pick up intermediate detonator.
- II. If the train is approaching, place the detonators as far away from the train as possible.
- III. If there is a banking engine, banking engine Loco Pilot shall arrange protection in rear.
- IV. When the train is ready to proceed, Loco Pilot shall recall railway servant protecting the train by sounding continuous whistle.
- V. When the train goes forward, Loco Pilot shall stop short and pick up 3 detonators placed in front.
- VI. In the case of train without guard, the duties of guard shall devolve on Loco Pilot.
- VII. In the event of disability of the Loco Pilot, the duties of Loco Pilot shall devolve on guard.

Protection in Automatic block territory

When a train is stopped in an Automatic block signalling section, the Guard shall immediately exhibit a Stop hand signal towards the rear and check up that the tail board or tail light is correctly exhibited.

Single line and during TSL working on Double line.

LP shall protect the train in front as per G.R/S.R. 6.03 and Guard shall protect in rear by placing one detonator at 90m and two detonators at 180m, 10m apart.

Double line

The Guard shall first ensure the protection of adjacent line in front by the LP as per G.R.6.03 and protect same line in rear by placing one detonator at 90m and 10m apart two detonators at 180m.

Protection when relief engine is sought

Relief engine is expected from advance station, during day time protection is not required but during night time protection shall be done as per G.R/S.R. 6.03

I. What is system of working how many systems are there in Indian railway and SC Railway? (G.R/S.R.7.01)

1. System of working means system adopted for the time being for working for trains on any portion of railway. (G.R/S.R.7.01)
2. On Indian railway all trains working between stations shall be worked on the one of the following systems namely
 - a. The absolute block system
 - b. The Automatic Block System
 - c. The Following Trains System
 - d. The Pilot Guard System
 - e. The Train-Staff And Ticket System,
 - f. The One Train Only System

The systems used on the south central railway are

- The automatic block system used on the this Railway are, LPI - SC - MLY, HSJ – HYB(SC Division), SC – KCG –FM, SC –BMO(HYB division), BZA – KCC(BZA division)n double line and on BZA-KCC(BZA division) on single line.
- The absolute block system on all other sections of SC Rly.

Essentials of the Absolute Block System (G.R.8.01)

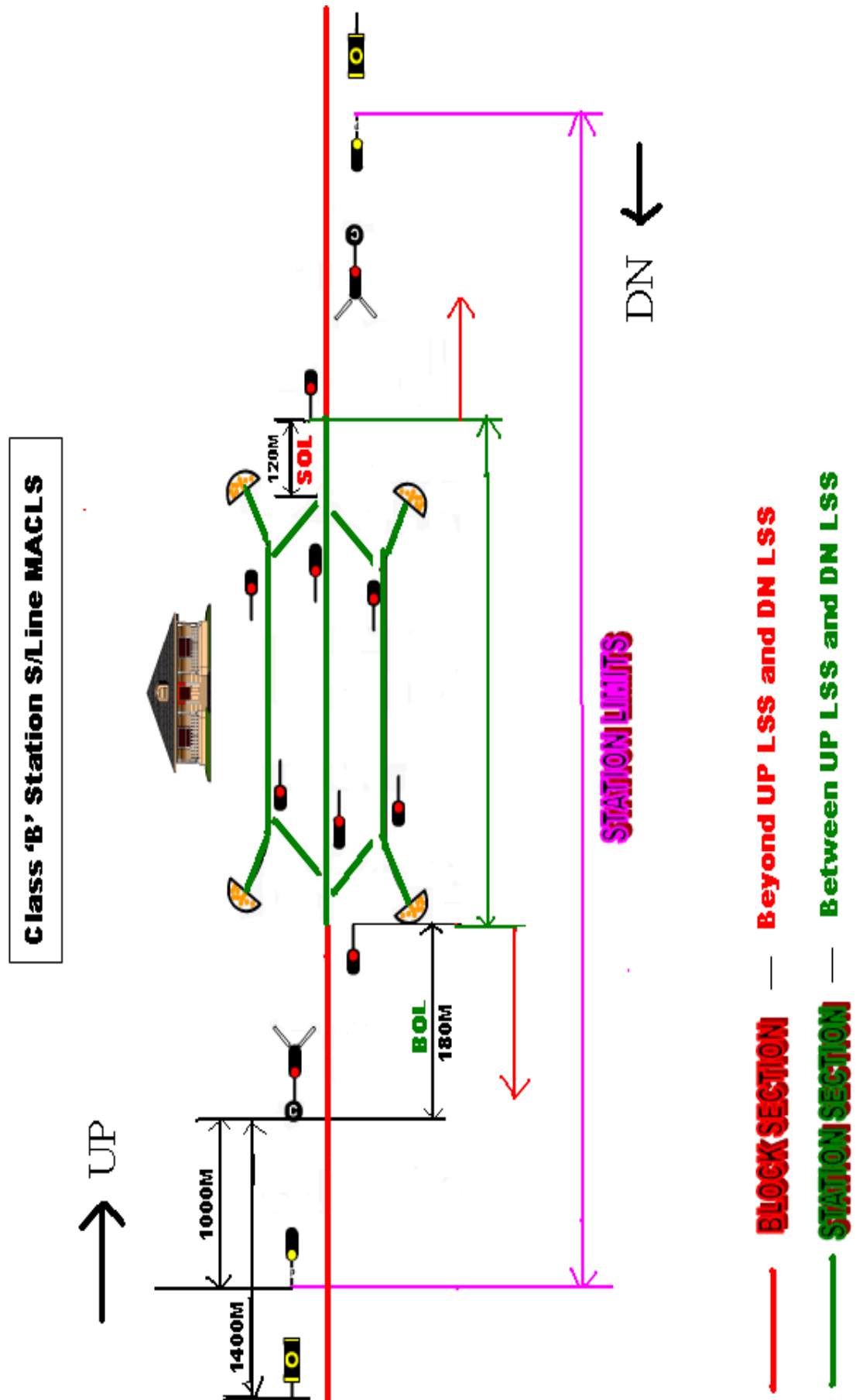
1. Where trains are worked on absolute block system:
 - a. No train shall be allowed to leave a block station unless line clear has been received from the block station in advance, and

- b. On double lines such line clear shall not be given unless line is clear, not only up to first stop signal at the block station at which such Line Clear is given but also for an adequate distance beyond it;
 - c. On single lines such Line Clear shall not be given unless line is clear of trains running in the same direction ,not only up to the first stop signal at the block station at which such Line Clear is given, but also for an adequate distance beyond it, and is clear of trains running in the direction towards the block section to which such line clear is given,
2. Unless otherwise directed by approved special instructions, the adequate distance referred to in clauses (b)and (c) of sub-rule (1) shall not be less than
- a. 400mts in case of TALQ signalling or TACLS, and
 - b. 180mts in case of MAS or Modified Lower Quadrant Signalling.

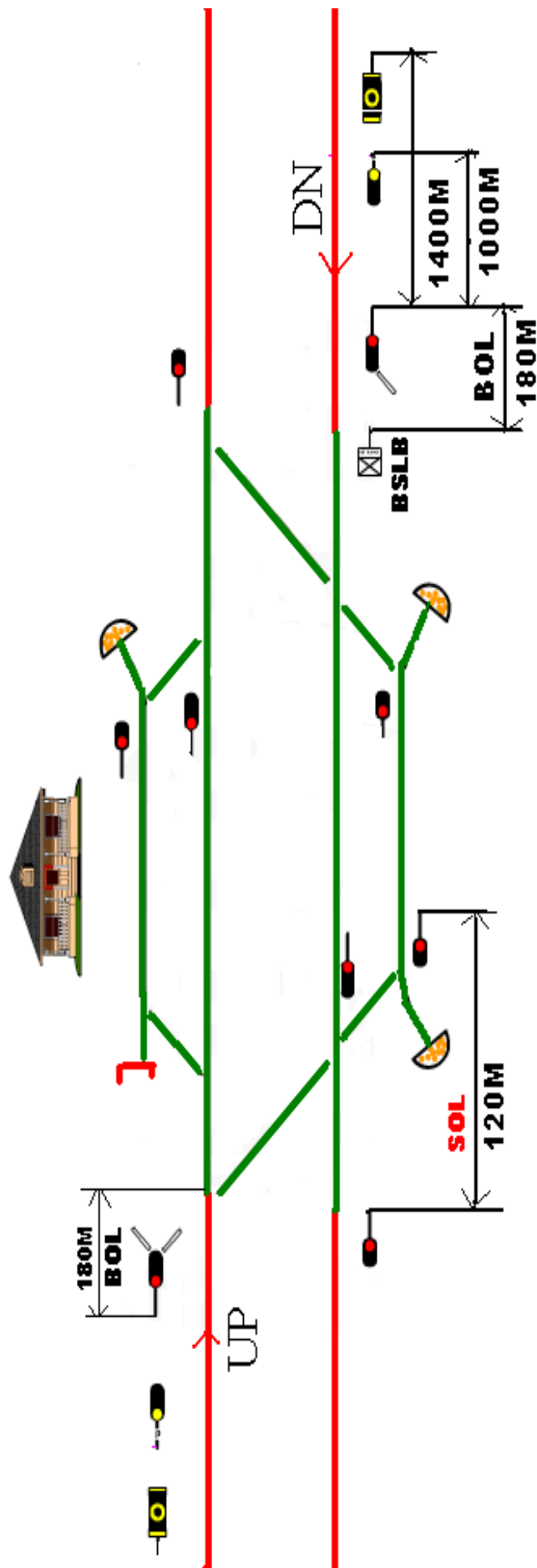
II. Conditions for granting Line Clear (G.R.8.02/3/4)

Conditions for granting Line Clear at a class 'B' station.—

- (1) At a class 'B' station on double line, the line shall not be considered clear and Line Clear shall not be given, unless -
 - (a) The whole of the last preceding train has arrived complete;
 - (b) All necessary signals have been put back to 'on' behind the said train; and
 - (c) The line is clear -
 - (i) At stations equipped with two-aspect signalling –up to the Home signal, or
 - (ii) At stations equipped with multiple-aspect signalling or modified lower quadrant signalling – upto the outermost facing points or the Block Section Limit Board (if any).
- (2) At a class 'B' station on single line, the line shall not be considered clear and Line Clear shall not be given, unless –
 - (a) The whole of the last preceding train has arrived complete;
 - (b) All necessary signals have been put back to 'on' behind the said train; and
 - (c) The line is clear –
 - (i) at stations equipped with two-aspect signalling –upto the Shunting Limit Board or Advanced Starter (if any) at that end of the station nearest to the expected train, or upto the Home signal if there is no Shunting Limit Board or Advanced Starter, or upto the outermost facing points if there is no Shunting Limit Board or Advanced Starter or Home signal;
 - (ii) at stations equipped with multiple-aspect signalling or modified lower quadrant signalling - upto the Shunting Limit Board or Advanced Starter (if any) at the end of the station nearest to the expected train, or up to the outermost facing points if there is no Shunting Limit Board or Advanced Starter.



CLASS 'B' STATION D/LINE WITH COMMON LOOP



- BLOCK SECTION** — UP- Beyond O/M facing point & UP LSS
- STATION SECTION** — DN- Beyond BSLB & DN LSS
- STATION SECTION** — UP- O/M facing Point to UP LSS
- STATION SECTION** — DN- BSLB to DN LSS

Kinds of fixed signals in Automatic Block territory (G.R./S.R.3.12, 9.15)

Stop signals in automatic block territory shall be colour light signals and may of the following kinds

Automatic Stop signal:

1. It is distinguished by “A” marker plate.
2. It is not depending on manual operation.
3. Signals are operated automatically by the passage of the train.
4. It can be passed at ‘ON’ without any authority after waiting one/two minutes during day/night with a restricted speed of 10 kmph.
5. Normal aspect of the Automatic signal is proceed.

Semi automatic Stop signal:

1. A fixed signal which can be operated either as Automatic Stop signal or Manual Stop signal, as required, is called Semi-Automatic Stop signal.
2. A king knob is provided to make Semi-Automatic Stop signal to work either as an Automatic Stop signal or as a Manual Stop signal
3. When King Knob is reversed it works as Automatic Stop signal.
4. When King Knob is in normal position it works as a manual stop signal.
5. When a Semi-Automatic Stop signal works as Automatic Stop Signal, when ‘A’ marker is illuminated.
6. When ‘A’ marker is extinguished, the signal works as Manual Stop signal.

Manual stop signal: these signals are operated manually and it cannot work as Automatic or semi automatic signal

Gate signal:

1. Automatic signals interlocked with level crossing gates are distinguished by the provision of ‘G’ marker i.e., letter ‘G’ in black on yellow circular disc and white illuminated letter ‘A’ against black back ground.
2. When gate is in open condition, gate signal exhibits stop aspect with extinguished ‘A’ marker.
3. When gate is in closed condition, it works as Automatic Stop signal with illuminated ‘A’ marker.
4. If gate signal is at ‘on’ and ‘A’ marker is extinguished, the Loco Pilot has to follow the gate rules and also automatic rules [Rule 9.15(b)].
5. If ‘A’ marker is illuminated and the signal is at ‘on’, the Loco Pilot shall follow the rules for the automatic signal at ON. (Rule 9.02 and 9.07 and SRs there under)

Working of trains during prolonged failure of signals and communications are available in automatic block system(S.R.9.12.1)

1. Ensure no train in block section under exchange of PN.
2. SM to inform SCOR.

3. Train stopped at station, LP & Guard advised of circumstances.
4. SM in rear obtains line clear by any one means of communication in order of priority.
5. SM in advance grants L/C after satisfying conditions, adequate distance being 120m beyond starter.
6. All points set correctly & locked.
7. SM after obtaining line clear shall give "authority to Proceed on automatic block system during prolong failure of signal"- T/D.912 indicating the signal No. to pass them.
8. Before giving authority ensure points are correctly set & locked, LC gates informed under exchange of PN.
9. LP of 1st train with T/D.912 proceeds at 25 Kmph and lookout for obstruction. Second and subsequent trains can proceed with normal speed.
10. LP to act at the station ahead as per the aspect of the signals.
11. Entries of the train made in red ink in TSR.
12. Clearance of section intimated under exchange of PN.
13. As soon signals are put to work both SM exchange messages under exchange of PN.
14. All records checked by TI and submit report to Sr.DOM/DOM within 7 days

LSS defective on Single line.(S.R.9.06)

If LSS is defective on single line or the direction of traffic cannot be established, Automatic block working shall be suspended.

SM shall ensure that all trains arrived completely and treat the entire block section as one section.

SM shall obtain line clear by any one of the alternative means of communication.

Issue PLCT + T/A 912 to the LP. The speed of the first train shall be restricted to 25 kmph.

Automatic block working may be restored after the LSS or direction of traffic is rectified

LSS defective on Double line: (S.R.3.12)

LP shall be given T/369 3(b) + Caution order of 10 kmph upto next Automatic stop signal.

Differentiate Absolute and Automatic block systems (Chapter VII & IX)

Sl.No.	Absolute block system	Automatic Block system
1	Block stations are classified as A, B ,C and Special class stations	Stations are not classified
2	Signals may be semaphore or colour light	Signals are colour light only.
3	Only manual signals are provided.	Signals may be automatic, semiautomatic and manual.
4	Provision of continuous track circuiting or Axle counters on line is/are not required except IBS	Line shall be provided with continuous track circuit or axle counter
5	Normal aspect of stop signal is 'STOP'	Normal aspect of stop signal is 'PROCEED'.
6	No stop signal can be passed at 'ON' unless LP receives a written authority or PN (except IB, Gate)	No authority is required to pass Automatic signal at 'ON'
7	To start a train line clear shall be obtained.	Line clear not required to start a train (but on single line, line clear shall be obtained to establish direction of traffic.
8	Signals may be two aspects or multiple aspects. Permissive signals may be provided.	Signals shall be multiple aspects only. Permissive signals are not provided.
9	. 'G' marker shall be provided on gate stop signal	Besides 'G' marker an illuminated 'A ' marker is available when gate is closed.
10	Time interval between two trains during TIC on double line is 30 minutes.	Time interval between trains during TIC on double Line is 15minutes or running time of the train whichever is more.
11	Protection shall be arranged as per 6.03 on same line and adjacent line.	Protection shall be arranged on same line in rear as per the 9.10 and other lines as per 6.03.
12	Normally block section between two stations will not be divided.	Block section between two stations are divided into number of automatic block signalling sections.
13	During TIC on single line authority is T/B.602.	During TIC on single line authority is T/B 602 +T/A.912.
14	During TIC on double line authority is T/C 6.02	During TIC on double line authority is T/B 912.

15	During TSL working authority for all trains is T/D 602	During TSL working authority for 1 st train on right line and all trains on wrong line is T/D 602 + T/A 912. 2 nd and subsequent trains on right line proceed on signal aspects.
16	During TSL working the speed of the first train is restricted to 25 Kmph	During TSL working the speed of the first train on wrong line is restricted to 25 Kmph.
17	During TSL working the speed of the 2 nd and subsequent trains is normal speed	During TSL working the speed of the 2 nd and subsequent trains on wrong line and all trains on right line is normal speed.
18	Authority to dispatch relief engine/train is T/A 602	Authority to dispatch relief engine/train is T/C 912
19	On single line when LSS become defective authority is PLCT.	On single line when LSS become Defective authority is PLCT +T/A 912.
20	On double line when LSS become defective authority is PLCT.	On double line when LSS become defective authority is T.369(3b)+CO of 10 kmph up to next automatic signal.

BLOCK WORKING

Conditions for closing block section (G.R.14.10)

1. The block section shall be cleared only after complete arrival of the train or the obstruction has been removed
2. Before giving train out of block section signal SM shall ensure the train has arrived completely or the cause for blocking has been removed and conditions for granting L/C have been fulfilled
3. SM is responsible to ensure complete arrival of train by
 - a) *Tail Board/Tail lamp of run through train or
 - b) *Tail board/Tail lamp of stopping train which can be conveniently observed by SM.
 - c) Where SM cannot see complete arrival.
4. Whenever block proving axle counter and complete track circuiting of station section is available and there is clear indication of block section and complete arrival of the train is given it would be taken as assurance for complete arrival of the train.
5. Where BPAC is not provided or not functioning
6. PN receiving from cabin men/lever men who can ensure complete arrival or

7. Exchanging PN with Guard of a stopping train on Walkie-Talkie or PN recorded by the Guard T.1410 register when walkie talkie or BPAC fail or
8. PN exchanged by the Guard, who shall proceed in rear and ensure the train arrived within fouling mark by verifying last vehicle No.
9. When train is running without BV or guard, PN received from Points man who shall be deputed to ensure complete arrival of the train in case of train running without Guard.

What are the indicators and Re-setting buttons provided at a station where IB signal is operated? (S.R.14.14)

K1 indicator

1. With audible alarm sounds when IBS passed at 'ON'. The alarm can be stopped by pressing acknowledgement button.
2. Immediately SM must alert SM in advance and give time when it passed IBS at 'ON'
3. In case train entered into occupied IB section then SM shall
 - i. Advise gateman to stop & inform LP & guard
 - ii. Inform TPC when handled by electric loco to switch off OHE power supply and informed through emergency socket
 - iii. Advise SM in advance to issue CO to train coming on the other line to inform the LP of the train
 - iv. In case train entered un occupied IB section, SM shall take action as per point No. 2 above.
 - v. In both circumstances on complete arrival of train, the SM shall give clearance under exchange of PN duly making entries in TSR/Station Diary in red ink at both stations.
 - vi. The indication disappears after normal restoration by using PB-1 and PB-3 at the other end
 - vii. Till such time no train shall be allowed to enter the section

K2 indicator

1. K2 indicator appears with audible alarm when train passes LSS in OFF position and enters A/C section
2. Indications disappear and audible alarm stops as LSS knob is put back to normal.

K3 indicator

1. K3 indicator appears with audible alarm as train passes IBS in 'off' position and enters 'IB' section
2. The indication disappears and audible alarm stops as IBS knob is normalized

K4 indicator

3. K4 indicator appears and audible alarm sounds whenever the normal/clear aspect bulb of IBS/IB distant signal bulb fuses or power supply to IB fails.
4. Pressing acknowledgement button stops the alarm.
5. Indication will disappear after the replacement of fused bulb or resumption of power supply.

RESETTING AXLE COUNTER (S.R.14.13)**I ANALOG AXLE COUNTERS**

1. PB-1 ; To reset A/C when IB is passed at 'ON'
2. PB-2 ; Reset A/C due to failure or improper counting
3. PB-3 ; Give cooperation to station in rear
4. PB-1 or PB-2 used with cooperation of station ahead. This cooperation is given by pressing PB-3 and indicated by white light near PB-1 or PB-2 buttons

ii RESETTING DIGITAL AXLE COUNTER

PB-1 ; to permit LSS of rear station to be taken 'off' when IB passed at 'ON'

PB-3 ; give cooperation to station in rear

Reset button: to reset axle counter due to failure of improper counting

1. PB-1 is used only with cooperation after pressing PB3 white light appears near PB-1 button
2. When reset is initiated, digital A/C of rear section enters into preparatory reset mode. The first train dealt on written authority
3. On clearing the section on preparatory reset, if A/C shows clear indication all subsequent trains dealt normally.
4. If it is showing continuously occupied the A/C treated as defective.

Resetting button for axle counters provided for loop line: (S.R.3.69.5 &SWRs)

- 1) When the axle counter equipment shows occupied indication even though the concerned line is clear of any obstruction, it indicates that the axle counter equipment has failed.
- 2) When it has become necessary to reset the axle counter, the SM has to call for one operating / S&T staff..
- 3) SM on duty shall verify the clearance of line for which axle counter is being reset,
- 4) Then press the push button provided inside the plunger box which is provided on the platform/line/cabin
- 5) An 'YELLOW' indication will appear in the reset box on the panel.

- 6) On observing this, the SM on duty and the operating/S&T staff deputed, shall simultaneously press the button in the plunger box and the push button reset key provided in the reset Panel in the SM's office.
- 7) Before giving cooperation the operating/S&T staff shall ensure that the line is free.
- 8) Whenever the Axle counter is reset, the 'RED' indication will change to 'GREEN' and the counter will register next higher number. Entries shall be made in the relevant registers.

Reset operation on Digital Axle Counters provided for IBs and BPAC

1. The resetting operation shall be resorted to only when there is 'occupied' indication even though the section is clear.
2. The SM on duty shall cross check the same with the other end SM on duty and advise him to reset the apparatus under exchange of PN for section clearance, following the procedure as under:
3. Insert SM's reset key, turn right and keep pressed.
4. Press reset push button
5. Release both SM's key and reset button.
6. Turn left and remove SM' key and reset key and keep in safe custody.
7. Similar operation is to be carried out at the adjacent station independently.
8. Reset counter number increases by one – SM on duty has to enter number in the register
9. provided for this purpose with all details
10. After application of reset at both ends, the system will not show clear indication but enters in to the preparatory mode.
11. The preparatory reset indication appears on the reset box.
12. In case the other end SM does not operate the reset, the 'occupied' indication continues. In such a situation, the SM at the other station shall be reminded to do reset operation so that the system enters into preparatory reset mode.
13. The first train (pilot train) is to be dealt on written authority (PLCT and T369 (3b) to pass IBS at ON) when the system is in preparatory reset mode.

Reset of Analog axle counter provided for IBs.

- Wherever the Axle counter indication does not resume 'GREEN' even after the train has cleared IBS section, the SM on duty must inform the on duty SM at the other end and ascertain the clearance of the train.
- If this is confirmed by bell code of signals, a RED ink entry must be made supported by exchanging of private number in the Train Register.
- He must then notify the particulars of train time when the train has cleared the section in order to normalize the Axle counter.

- On receipt of confirmation from the SM on duty at the station in advance as to the train having cleared into that station complete, shall request on duty SM of that station to operate PB-3 for co-operation.

On observing the indication for co-operation Insert SM's reset key PB-2, turn right and keep pressed.

- This operation is recorded in the numerical counter attached to PB-2 button.
- The particulars of operation and the progressive numbers appearing in the numerical counter must be recorded in RED ink in the Train Signal Register and the Counter Registers.

Salient features of SSBPAC(Solid State Block Proving by Axle Counter) and UFSBI(Universal Fail Safe Block Interface)

1. It is a non-co-operative, user-friendly push button type Block Instrument capable of providing the last vehicle detection in both single & double line sections.
2. The block section is provided with Block proven by axle counter (BPAC) to verify the occupation or clearance of block section and indicated on Block Panel.
3. Train entry/exit buzzer to/from block section is provided at both stations and to be acknowledged.
4. When SNK is lit, it indicates LSS, FSS, controls are **normal** and TCF indication is not available at station.
5. When SNOEK is lit, it indicates LSS, FSS, controls are **normal** and TCF indication is not available at station on other end of block section.
6. For cancelation of line clear:-
 - Despatching end SM give cooperation by pressing cancel co-op button
 - Receiving end SM shall press Cancel and Bell code button simultaneously after observing co-op button indication.
 - Counter registers next higher number at the receiving end station where block instrument is in TCF position..
7. Block Instrument automatically goes to Line closed position without any operation, after complete arrival of train at the receiving station.
8. Due to any reason if any vehicle enters block section, section buzzer starts along with line occupied and to be acknowledged by both.

What are the various types of blocks and what are the instructions for line block Block (SR 15.06)

It is an arrangement of blocking of track against movement of traffic over a particular section, allowing only material train/ TTM/tower wagon for maintenance.

There are four types of block.

1. Line block = blocking for engineering purposes. no traffic except material train and TTM
- 2) Power block: blocking against electric traffic. diesel may be allowed. exclusively for OHE maintenance
- 3) Integrated block = block for maintenance work for more than one department (TRD, Engg and S&T) simultaneously.
- 4) Shadow block – means a block, which may be or may not be integrated, availed from either end of the block section between two block stations simultaneously.

Ex- Changing of bridge girders, replacement of turnouts

Special instructions for line block

Engineering works are classified under the following three categories

- ❖ Category - I - normal routine maintenance. no special precautions & advice to operating official
ex: renewal of keys / bolts etc..
- ❖ Category - II - caution order by SM and SCOR to loco pilots (even without an SR) engg official to protect work spot
ex: greasing of fish plates / bridge painting, scattered renewal of sleepers
- ❖ Category - III - interference to normal traffic /SR.
Ex .renewal of rails/sleepers, loading/un loading of ballast re girdering and welding of rail joints

Procedure for obtaining line block

1. AEN / PWI nominated shall apply to DRM for blocking of running line outside station limits.
2. Engg.branch shall co-ordinate with operating branch to issue `circular notice'. valid for 3 months.
3. if expires, fresh notice shall be obtained. If the work is taken up, it remains valid till the task is completed.
4. Two days before the work, DOM shall issue an a/c message indicating name of the engg.official, last train will be specified. in the case of daily work on re-laying a / c message valid for 7 days
5. Ack. of SMs, SCOR, TPC, CCC etc. shall be obtained on a/c message, other wise DOM shall stop the work. Material lorry may be allowed into the b/section

6. Slots for integrated blocks for maintenance, least crowded time span have been indicated in WTT. Schedules for line blocks for the week- planned by Sr.DOM & Sr.DEN (co-ord) on previous week ends.
7. S&T , Elec. depts. shall plan simultaneously if safety is endangered, PWI can impose an emergency CO
8. SCOR will advise the Station Masters on either side who in turn will advise official-in-charge of the work about the commencement of the line block and the last train after the departure of which the line block will be taken up nominated official shall adhere to the block timings strictly.
9. SM shall issue Caution Order to all trains into the affected area general precautions
10. SCOR advice both SMs through a message of line block both SMs exchange messages with PNs about time & last train
11. On D/L, commutator shall be turned to TOL & caps placed. On S/L , 'line block' collars placed on plunger.
12. Separate PNs taken for each unit and recorded in the authority red ink entries in TSR
13. Before permitting the block SMs shall ensure B/S is clear of trains if communication fails ,block shall not be permitted

Line block on field telephone

1. Permitted for any reason on controlled sections only.
2. Person nominated (not lower than PWI) in the circular notice shall only obtain line block.
3. DOM's all concerned message shall mention the name and last train
4. PN sheet shall be supplied to nominated work in charge by DRM & returned on completion of work.
5. Before leaving to the site he shall consult SCOR
6. After the nominated train is passed, spot shall be protected; PWI shall call SCOR and give his name, designation, circular notice reference no. etc.
7. SCOR shall then advise SMs on either side. SMs shall ack by giving PNs SCOR shall record in the chart.. SMs will block the line and advice SCOR & engg. official on telephone.
8. Engg official then commence the work & keep in touch with SCOR
9. During control interruption engg official shall consult SM. SM will issue a written memo to block the line.
10. A material lorry may be allowed. A material train if mentioned in the circular notice may also be sent on T/462 OR T/A 462.
11. On completion – PWI shall give "safety certificate" and a separate certificate that the block section is clear of material train
12. On completion of work the engineering official-in-charge will contact the SCOR (SCOR will call both SMs) on the field telephone and then issue a message that

track is certified fit for traffic, train working may be resumed. SCOR will issue train notice to both SMs and authorise them to cancel line block, resume normal working and obtain ack.

13. **Extension of block** - engg official shall contact SCOR on field telephone and obtain the extension and in turn he shall send a written advice to SM on one end. SM shall advise SM on other end.

Line block on VHF/ portable radio communication

- a) Nominated engg. Official only to obtain block
- b) After the nominated train has passed, PWI shall protect the line (Obstruction) and call SM on VHF & give a PN.
- c) SM shall advice SCOR & SM at other end
- d) Once permission is obtained from SCOR ,SM shall advice PWI with a PN
- e) After completion of work and track made safe, remove protection convey a PN to his representative who is at station with a PWI signed written memo.
- f) Representative shall enter PN and time in the memo and hand over to SM
- g) SM will advise SCOR and SM of the other end and cancel the line block.

Emergency/no circular notice

SSE / SE / JE (P.way) shall give a written requisition to SM. SM shall co-ordinate with control for imposition of line block

Despatch of material train into block section

- Work & return -T / 462
- Work & clear next block station-T/ A 462 - only one material train is permitted

Despatch of track tamping machine

- Work & return = T / 465
- Work & clear next block station = T / A 465 - more than one machine is permitted
- T / 465(1st TTM) and CO s (for following units) -(return to same station) or COs for preceding and T / A 465 (last unit) (proceeding to next block station)

Despatch of tower wagon

- Work & return = T / 1708 and work & clear to next block station = T / A 1708
- More than one t.wgn is permitted
- T / 1708 (first tower wagon)+ CO s for following units(return to same station)or COs for preceding + last unit T/A 1708 (proceeding to next block station)

Speeds

- first TTM /T.wagon = normal speed and following = 25 / 10 kmph (Day /Night)
- SM receiving T / 462, T / 465, T / 1708 shall advice other SM under exchange of PN about block section clearance.

Integrated block

- Relevant authorities to be issued to different units
- CO mentioning preceding / following units & to maintain a gap of 150 mts. Each unit shall maintain 15 / 8 kmph. However only one unit is allowed along with TTM & T.wgn.

Shadow block

- Relevant authorities issued by respective SMs. C.O. indicating the preceding / following units from both ends. Each shall maintain a gap of 150 mts & a good look out for obstruction from opposite side (15 / 8). Each unit shall return to the same side they started. No unit shall overlap the work spot. SMs shall collect back the authorities issued.

General instructions

- Official in-charge shall ensure that every unit has effective brake power fitted with effective communication like walkie talkie, CUG, field telephone etc.
- Right line despatch – starter can be taken off.
- Wrong line – pilot out memo.
- Every unit shall be protected at the work spot by a competent railway servant.
- If any unit is not moving ,it shall be protected by placing 2 detonators at 150 mts(10 mts apart) and competent railway servant stand at 45 mts on D/L , in-charge shall ensure that the units doesn't infringe the adjacent line
- No shunting is allowed towards the b / section where MT / TTM is working under block protection.
- All units start back at one time & maintain 150 mts gap.

Reception

- First unit on reception signal & following on calling-on or T 509, separately for each unit onto same line.
- Wrong line – stop at opposite LSS & pilot-in memo separately for each unit onto same line
- on clearance , official in-charge shall give "safety certificate" in writing mentioning speed restriction if any
- SM shall advise SCOR & SM on other end about cancellation of line block, exchange messages with PNs, remove caps & resume normal working.

Trolly, Lorry and Motor trolly (G.R/S.R.15.18)

1. A vehicle which can be lifted bodily off the line by four men shall be deemed to be a trolly and any similar but heavier vehicle shall be deemed to be a lorry.
2. Any trolly which is self-propelled, by means of a motor, is motor trolly.
3. Push trollies and lorries shall always be pushed and not pulled.

4. Cycle trollies or trollies which are propelled by pedaling instead of pushing, and moped trollies can either be driven by a motor or pedaled. It may be pushed when necessary, but not pulled.
5. Cycle trollies and moped trollies shall be treated as push trollies in all respects
6. Push trollies/motor trolley shall be manned by at least four trolley men
7. Lorries shall be manned by at least six lorry men exclusive of any flagman
8. A cycle trolley or moped trolley shall be manned by three persons including the persons pedaling or driving.
9. Maximum number of men to be carried.
 - i. Push trolley-ten on BG
 - ii. Cycle trolley or moped trolley shall not exceed five.
 - iii. motor trolley – ten on BG

Working of Motor trolley (S.R.15.25)

1. A motor trolley shall always run under block protection and it shall be treated and signaled as train. It shall not be placed on any line without permission of SM. Motor trolley may follow a train or another motor trolley during day light hours in clear light only.
2. SM shall obtain line clear on block telephone
3. On IB section treat two block sections as one block section
4. On single line – token less & double line: T/A.1525
5. Relevant free starters can be taken off. Place 'trolley on line' cap on the plunger
6. On double line, turn the block handle to TOL position and place 'trolley on line' cap on the commutator.
7. On single line, Reception signals can be taken off
8. On arrival in charge of motor trolley will sign with time and date on authority and deliver to SM with an endorsement. Authority shall be pasted in the Station Diary.
9. Clearance may be informed to the SM in rear supported by PN.
- 10.** All entries should be made in red ink in the TSR.

Motor trolley following a train:

1. A motor trolley / motor trollies may be allowed to follow a train / motor trolley during
day light hours and in clear weather only
2. Train will be despatched on normal authority to proceed.
3. Advise SM in advance by message and obtain his permission supported by PN

4. Motor trolley will be despatched on T/ 1525.
5. Out report shall be given separately and make an entry in TSR.
6. In a section where IB is provided, treat two block sections as one.
7. Motor trolley will be treated as last vehicle of the train which it is following.
8. The reception signal lever/knob shall not be normalized after the arrival of the train and the points shall not be altered and the block section should not be cleared until the arrival of motor trolley.
9. In report shall be sent separately for train/motor trolley and following motor trolley and make separate entries in the TSR.
10. Red ink entry shall be made in the TSR.
11. On arrival at the station, the official in-charge of trolley will hand over the T.1525 with an endorsement that the motor trolley arrived complete with date and time and sign in the TSR
12. The SM will intimate the block station in rear, supported by PN.
13. Motor trolley following goods train on the sections specified (15.26.2.1) is not permitted.

Write short notes on Lorry? (G.R/S.R.15.27)

1. A heavy vehicle which can be readily lifted off the line by four men is called 'Lorry'.
2. When trolley is loaded with engineering material or working in some specified sections it shall be deemed to be lorry.
3. Lorries shall be manned by minimum six men.
4. Staff of Engineering/Elec./S&T to be certified by their respective authorized officers, DEN/DEE/DSTE and issue competency certificates.
5. Trolleys/lorries not carried by M/E trains except in emergency.
6. Lorries are carried in BV of goods/mixed trains.
7. Will only work during daylight hours when visibility is clear up to 800 m.
8. A trolley/lorry not insulated shall not be placed on line within station limits where track circuit is provided.
9. Normally permitted without Block Protection.
10. Run under Block Protection in following cases if it is permitted and SM shall place Lorry on line cap on the plunger of the Block Instrument.
 - i. In some specified sections
 - ii. During thick foggy weather
 - iii. During night
 - iv. When loaded with heavy materials like rails, etc.
11. Before placing the lorry on the line the official shall advise the SM in writing on the form No. T.1518 (Trolley/Lorry Notice)

12. T.1518 specifies the duration of work, the line/lines over which it has to work within station limits, and the KM up to which it is required to be worked outside station limits
13. The Official In charge shall place the lorry on line only after receiving the acknowledgement of the SM on the record foil.
14. SM shall arrange to give Caution Orders to all the trains entering the Block section.
15. Whenever lorry is placed on line protection of the lorry is to be done as
 - i. On Double line one or two men one at 400/600m, on MG/BG shall carry banner flags and at 800/1200m on MG/BG exhibit stop hand signal in the direction of train expected.
 - ii. On Single Line one or two men at 400/600m on MG/BG show banner flag and at 800/1200m on MG/BG exhibit stop hand signal on either side.
 - iii. Whenever stops the person at 400/600m shall keep banner flag across and exhibit stop hand signal and men at 800/1200m shall place 3 detonators 10 m apart and show stop hand signal.
16. Speed of lorry shall not exceed 10 kmph on straight line and 6 kmph on curves.
17. When lorries following a distance of 2 telegraph post to be maintained.
18. When lorries is not in use placed on Platform or beside the track it must be kept parallel to the track and the wheels chained and padlocked.

Write short notes on Rail dolly? (S.R.15.27.8)

1. Rail dolly is a device with two or more wheels moved manually on one rail to carry rail/sleeper in suspended position.
2. When necessary the suspended position dropped and dolly cleared off track.
3. Manned by not less than two persons.
4. The in charge of working shall not be lower rank than key man.
5. He must hold competency certificate issued by PWI, valid for 5 years.
6. Worked only when visibility is clear up to 1200 m.
7. It shall not be worked in section having gradient steeper than 1 in 200.
8. Not more than 6 rail dollies can work at a time in the block section.
9. Not longer than 3 welded rail to be carried by one dolly.
10. Normally worked without block protection, but work under block protection in case of visibility is not clear and heavier rail is carried.
11. On Single line stop hand signal exhibited at 1200m from either direction.
12. While passing L/C gates the official shall ensure safe passage of rail dollies.

Write short notes on RRV? (S.R.15.27.9)

1. It is a self propelled vehicle which can run on Railway track and as well as on road.
2. It shall be treated and signaled as a train.
3. In case of IB Signalling both the section treated as one and worked.
4. Will run on both track and road in section where maintenance work is done.
5. Run under supervision of SSE/SE/JE. P.Way who shall be in charge.
6. In charge is responsible for traffic block, protection and movement of RRV.
7. Operator undergoes Pro. ALP training at ZRTI/MLY.
8. Competency certificate issued valid for 3 years and renewed in the refresher course.
9. He shall also posses heavy vehicle driving license for road vehicles.
10. 'ON' tracking and 'OFF' tracking can be done both at the stations and at the LC gates.
11. The in charge shall give a message supported by PN whenever it has to be 'off' track at the LC gate.
12. If it has to be 'on' tracking then the in charge shall obtain permission of SM and can place on track only after receiving PN from the SM.
13. SM before giving permission for 'on' tracking shall take necessary precautions.
14. Maximum of seven persons including operator are permitted.
15. Maximum Speed shall be 80Kmph on road and 60 Kmph on rail in forward direction and 10Kmph in reverse direction.

ELECTRIFIED SECTION

Isolator switches (section and siding) (S.R.17.03.5.3)

1. 'Switch, interconnecting section or Isolator' means a switch used for connecting or disconnecting adjacent elementary sections of overhead equipments.
2. In emergency, SM shall operate switches as per specific direction of the TPC.
3. Every Station Master shall be fully aware of the location of the isolator switches provided for the control of power supply to overhead equipment at the station or near the cabin and shall be conversant with the correct method of opening and closing the same in an emergency.
4. Every Station Master shall be trained in the operation of section and siding switches in an emergency.
5. The Station Masters shall be examined for their competency in operating these switches once in three years and competency certificate issued by DEE/Tr.D or his authorized Inspector.
6. The Station Master who holds a certificate of competency shall only be posted at such stations where these switches have been provided.
7. They shall lock the switches in the position advised by the TPC and shall not part with the key until it is cleared by the staff of the traction department.
8. Section switches are located as indicated in the diagram annexed to SWR and general sectioning diagram.
9. These diagrams show the distinguishing numbers of section switches, the stations they control and the location of each switch.

Power block (S.R.17.04.3,4)

Power Block – means blocking of a section of line against movement of electric traffic. This block is exclusively used for OHE maintenance purposes.

1. All Departments requiring traffic block, power block or 'permit to work' in the danger zone shall give advance notice to DEE/Tr.D before 10.00 hours on Monday.
2. The applications contains
 - i. Nature of work
 - ii. Persons carrying out the work
 - iii. Location of work and section & line to be blocked
 - iv. Train between which block required
 - v. Whether Diesel traffic may be permitted during the block.
3. DEE/Tr.D with DOM issue weekly programme by 12 hours on every Wednesday.

4. Weekly programme sent by DOM by Friday evening to be commenced from Monday.
5. Works of urgent nature taken up by obtaining emergency blocks from TPC.
6. When Power Block is sanctioned, TPC issue to SCOR Power Block message either through messenger or through telephone under exchange of PN.
7. SCOR with consultation of SM acknowledge and permit indicating the exact time of permission supported by PN.
8. TPC will arrange to isolate and make dead the portion of Electrical equipment and issue 'Permit to Work' to concerned officials.
9. In case of emergency TPC will isolate and advise SCOR.
10. When more than one working party is issued 'Permit to work' TPC will issue to one authorized person who is responsible that all have completed the works and then issue cancellation message.
11. Cancellation of Block advised by TPC to SCOR under exchange of PN.
12. In order to prevent electric rolling stock from being admitted into tracks where working carried out, the SM shall use 'Power Block Collars'
13. Points and Signals to the concerned lines should be locked and keys kept with SM.
14. SCOR on receipt of Power Block message from TPC repeat it to SM concerned.
15. SM to record and acknowledge with PN and then block the electric traffic from time indicated and place Power Block collars, on the concerned levers.
16. Power Block collars removed only on receipt of message from SCOR.
17. Information of Power Block mentioned in the Station Diary.

FORMS TO BE USED

E/Tr.D/2 - Exchange of messages between TPC & SCOR when Power Block is imposed.

E/Tr.D/3 - Used by TPC to SCOR for cancellation of Power Block.

E/Tr.D/4 - Used by TPC and SCOR for cancellation of CO imposed by TPC.

E/Tr.D/5 - Used by TPC for imposing speed restriction for OHE defective.

E/Tr.D/6 - Used by field staff to permit other department to work on adjacent to electrical equipment.

APPENDIX – I**CAUTION ORDER****1) Describe the method of notifying, preparation, issue, record and preservation of Caution order.**

1. It is a written/printed advice to LP/Guard of a train directing him to observe speed restrictions, special precautions etc. while on run due to line repair or any other reason. Types of caution order
 - Caution order (T.409) it is issued at notice station/stations and comprises all the caution orders between two notice stations and stations.
 - Nil Caution order (T/A.409) issued at notice station/station when there is no cautions between notice stations/stations.
 - Remainder caution order (T/B.409) Not in use in SCR.
2. Method of notifying
 - i. Officials of Engg./S&T/Elec/Mech/Security/Traffic, shall give a written advice to one of the SM's at either end of the block section.
 - ii. He shall mention in the message exact km, stations between, reasons and likely duration of the CO.
 - iii. He shall not commence the work until acknowledgement is received from SM.
 - iv. SM shall not acknowledge unless he advises the SM at the other end of block section and obtain his acknowledgement under exchange of PN.
 - v. After receiving the written advice SM shall not permit any train in the block section unless
 - a SCOR and SM of notice station are advised under exchange of PN
 - b The LP and Guard are warned of speed restrictions by issue of CO.
 - vi. The messages are communicated to the official in charge at divisional HQ responsible for preparation of CO or fed in the system if available.
4. Method of obtaining acknowledgement by notice stations
 - i. When notice station is situated in same control section SM shall call SM of notice station and advise message under exchange of PN with initials.
 - ii. When notice station is situated on different control section/different division SM shall inform PN and initial to SCOR who shall in turn inform SM of the notice station and obtain his initial and PN, same may be communicated to SM.
 - iii. Where auto phones are provided these messages exchanged by SM duly advising SCOR.
 - iv. Then SCOR will give message to SM to issue CO to the No. and description of trains which are between the notice station and concerned block station.
5. List of notice stations

The list of notice stations is mentioned in the respective WTT of the division.
6. Description and preparation of CO

- i. CO should be serially numbered and name of station, issuing shall be stamped on each copy.
- ii. CO should have space between to include at least four CO.
- iii. No entries made on back side
- iv. If more than one pages are there it should be serially numbered , Page-1, page-2,etc
- v. It shall specify km, stations at which or between which CO required to be observed, reasons for the imposition, names of the stations should be written in full, codes should not be used.
- vi. It shall contain all the speed restrictions (permanent & temporary) in **geographical** order in the direction of movement from one notice station to the other.
- vii. CO shall be made for each train. They shall be on white paper with blue or black font typed with caution order written on top in bold letters.
- viii. The SM shall check the cyclostyled/computer print out or the CO received from the divisional office and before delivering all CO in force shall be incorporated.
- ix. Details of total number of CO, number of additions & deletions shall be indicated
- x. Dated & signed in full by SM
- xi. In case of error or overwriting it shall be cancelled and fresh one prepared & issued.

7. Procedure of issue CO at notice station

- i. On receipt of the imposition/modification of SR the SM shall issue to each and every train which is passing over the affected block section.
 - ii. When SM received no restriction of speed to be imposed up to next notice station shall issue 'NIL' CO (T/A.409) to all trains.
 - iii. The LP shall not start a train from notice station without a divisional CO (T.409) or 'NIL' CO (T/A.409)
 - iv. It shall be issued to LP, ALP, and guard of all trains personally or through a railway servant.
 - v. The signatures of LP & guard obtained on record foil of the CO.
- In case train originates from other than notice station, SM to consult SCOR/ notice station and issue CO upto the notice station.

8. Change of crew enroute

The LP/Guard taking over charge must take over all CO relating to his train and give acknowledgement in log book/rough book of LP/guard

9. Attaching assisting/banking engine

Whenever assisting/banking engine is attached the LP/guard of the engine also shall be issued CO copy by SM of the station where such engine is attached.

10. In case of local/suburban trains the CO issued only once to the crew as per the link and mentioned in WTT.
11. Action by SM after cancellation: When SM receives cancellation message shall advise notice station, adjacent station and SCOR. SR cancelled shall be scored out and signed by SM, before delivering CO to LP&Guard of the train.
12. Record of CO message.
 - i. At all stations & notice stations where CO are issued, the messages are pasted in CO message book with serial number.
 - ii. When cancellation message is received this message pasted juxtapose to the imposition with reference to S.No.
 - iii. The SM shall keep updated record of SR imposed, date & time of enforcement and cancellation.
 - iv. This shall be brought forwarded every Monday at 00.00 hours in geographical order in relation to direction of movement.
 - v. The SM shall record in station diary the S.No. of CO in force at the time of signing off duty.
 - vi. S.No. Used in both directions commencing from 1st January to 31st December.
 - vii. After 31st December the CO shall be brought forwarded and new S.No. issued.
13. Preservation of CO.
 - a One master copy of CO for each direction for each day shall be preserved.
 - b Acknowledgement shall be obtained in the separate registers at Notice stations/Crew control lobbies.
 - c COs are preserved for a period of six months after use.

APPENDIX-II LEVEL CROSSING GATES

1) Classify the Level Crossing Gates and write the procedure of non-interlocked Engineering LC Gate working.

1. Level crossing means a gate provided at the intersection of road with railway track at the same level.
2. Level crossing gate means any form of movable barrier, including a chain, capable of being closed across the road at the level crossing.
3. Level crossing gates are classified according to the train vehicle units (TVU) of the gate.
4. Census for the purpose conducted once in 3 years.
5. TVUs are calculated as No. of units x No. of trains
6. L/C gates are classified as

i.	Special classes --	TVUs more than 50000
ii.	'A' class --	50000 – 30000
iii.	'B' class ---	30000-20000
iv.	'C' class --	other than 'A' 'B' and special
v.	'D' class --	unmanned gates
7. Level crossing gates situated within outermost stop signals of a station are under the control of Station Master which are called as Traffic LC Gates. Level crossing gates situated out side the outermost stop signals of a station are under control of PWI which are called as Engineering Gates.
8. When LC gate is interlocked with Station signals or Gate signals it is called as interlocked gate. When LC gate is not interlocked with any signals it is called as Non-interlocked gate.
9. Based on the traffic density, visibility and regular usage gates are converted from unmanned to manned.
10. More than 3 accidents in 3 years occurs the gate to be manned.
11. In case of obstruction keep the signal at 'ON' and inform the SM.
12. Different classifications of the gates are

Annexure – I	: Engg. L/C gate, interlocked and open for road traffic & telephone provided
Annexure – II	: Traffic L/C gate, interlocked and open for road traffic & telephone provided
Annexure- III	: Traffic L/C gate, non interlocked and closed for Road traffic & telephone provided
Annexure – IV	: Engg. Non interlocked gate, open for road traffic & telephone provided
Annexure – V	: Engg. Non interlocked L/C gate, closed for road traffic & telephone provided

Annexure – VI : Engg. Non interlocked L/C gate, closed for road traffic and telephone not provided

Non interlocked gate , open for road traffic & telephone provided

1. Before granting line clear, SM advise the gateman No. and description and direction of the train and issue a PN.
2. Gateman will then close the L/C gate against the road traffic and issue a PN to the SM..
3. Then the SM will grant line clear.
4. SM at the despatching end before obtaining line clear shall exchange PN with gateman.
5. In case of failure of telephone the SM shall arrange to issue CO to all the LP's entering the block section to observe gate rules.
6. In case of failure of lifting barriers message to be issued under exchange of PN. The SM will arrange to issue CO to the LP to observe the gate rules.
7. Gateman to fix a red flag before opening the L/C gate at 5 m on either side of the gate.
8. In case of obstruction at the gate the gateman shall inform the SM and protect the gate as per GR 6.03.

Non interlocked gate , closed for road traffic & telephone provided

1. Before obtaining/granting Line Clear, Station Master shall inform the Gateman the particulars of train and give PN.
2. Gateman shall record the particulars and after closing the gate, against road traffic shall communicate a PN to the Station Master.
3. SM shall permit the gateman to open the gate for road traffic only after train passed the gate and when line clear is not granted/obtained for any train
4. Gate closed can be opened by the Gateman with the permission of the Station Master.
5. After passage of road traffic, the Gateman shall close the gate and confirm this to SM.
6. In case of failure of telephone the SM shall arrange to issue CO to the entire LP's entering the block section to observe gate rules.
7. In case of failure of lifting barriers message to be issued under exchange of PN. The SM will arrange to issue CO to the LP to observe the gate rules.
8. Gateman to fix a red flag before opening the L/C gate at 5 m on either side of the gate.
9. In case of obstruction at the gate the gateman shall inform the SM and protect the gate as per GR 6.03.
10. In case of **traffic gate** if telephone communication fails the SM shall send a Porter with written advice to close the gate and after his return with PN from the gateman as having closed the gate he shall take off the signals.

Interlocked Gate Working

1. Detailed mode of operation for opening and closing the LC gate shall be provided in the respective SWR and Gate Working Instructions
2. Immediately after departure of the train, Station Master shall advise the Gateman, the number, description and direction of the train.
3. If the telephone is connected to the station at the receiving end, this advice shall be given by the SM to the Gateman, as soon as he receives train entering section advice from the dispatching station.
4. If the actual running time of the train from either end of the section is less than 10 minutes, SM will convey this advice to the Gateman before obtaining/ granting Line Clear.
5. It should be the duty of the Gateman to ensure that the gate is closed in time, so that there is no detention to the train or excessive detention to road traffic.
6. When telephonic communication fails or it does not get any response from the Gateman despite 2 or 3 attempts, the following procedure should be adopted:
 - SM issue a caution order advising loco pilot to give intermittently long whistles (- - - - -) and proceed cautiously while approaching the gate.
 - The Loco Pilot shall be instructed to pass the gate cautiously, on being hand signalled by the Gateman.
 - If hand signal is not seen, the Loco Pilot should be prepared to stop short of the gate and ensure that gate is closed and observe gate rules.
 - In case of an approaching train, the Station Master shall advise the Station Master at the despatching end that the telephone at the gate has failed.
 - The Station Master at the despatching end shall then issue a Caution Order to the Loco Pilot before despatching a train into the block section from his end.
 - Station Master should also advise S&T staff responsible for maintenance of the telephone to rectify the defect at the earliest.
 - Normal working will be resumed only after S&T staff rectifies the telephone and issue reconnection/fit memo for the same.
 - In case of Gates interlocked with station signals
 - ❖ Station Master on duty shall send written advice to the Gateman through the Porter with full details of number, description and direction of the train.
 - ❖ Gateman on receipt of such advice shall close the gate and transmit the key to the Station Master/Switchman which will enable them to take 'off' reception/departure signals.
 - ❖ When sufficient time is not available because of greater frequency of train service, Station Master will issue written authority to the Loco Pilot to pass the signal at 'on' position.
7. If lifting barriers/leaf gates get damaged or becomes out of order, gateman shall use the spare chain with disc and padlocks for securing the gate against road traffic.
8. If sliding boom arrangement is available, Gateman has to use them for closing the Gate against road traffic.
9. If the interlocking arrangement is available for sliding booms, after closing the gate with sliding booms, signals can be taken off.
10. Before resorting to the use of sliding booms for closing the gate, Gateman shall make an entry in the Gate Timing Register and exchange PN with station master.

11. After resuming working of normal booms, again entry to be made and PN to be exchanged with SM to this effect

NON-INTERLOCKED WORKING (APPENDIX III)

1) What is Non-interlocking working? What is the procedure for NI working? How the trains dealt during NI working?

Occasions for NI working

- Overhauling of lever frames/panels
- Remodeling of station/gauge conversion/doubling
- Introduction of panel interlocking/RR1
- Replacement of worn out frames/panels
- Cable meggering
- S&T engineering joint works etc.
 - All preparatory work should be completed before NI working.
 - The period for minor works should be decided by branch officers. Major work by DRM in consultation with Branch Officers.
 - Shunting operation should be reduced.
 - Less importance trains may be cancelled or short terminated.
 - Precedence and crossing should be avoided.
 - Major yards – NI working may be introduced in phases.
 - Eng. S&T staff send a circular notice to SR.DOM at least 15 days in advance copy to SM
 - SR.DOM shall issue special instructions – to A/C
 - A notification showing the date and time, probable duration

Action before commencement

- TI/SFC/Safety officer - overall in charge – DRM will decide Level of officer.
- DRM nominate SE/JE of S&T and eng to assist in charge.
- Sufficient number of clamps with pad locks H/S flags and lamps to be arranged.
- Contents of circular notice/special instructions to be explained to all the staff and take acknowledgement.
- Concerned records, memos should be arranged in advance.
- Caution order shall be issued by SM.

- S&T work and eng work should be carried out under the supervision of in-charges of concerned depts...
- Yard shall be divided into number of areas provided with goomtys – manned by SM/Guard/SWM assisted by points man/cabin/lever man/YP
- Furniture shall be provided by engineering branch.
- Proper communication shall be arranged by S&T department
- Lighting arrangements shall be made by electrical department.
- 15kmph speed board shall be provided by S&T branch.
- Preceding Sunday mock NI is to be conducted
- Before NI SI should give disconnection notice
- A common NI home with caution (off) without route indication.
- NI starter can be taken off to caution aspect
- LSS – disconnected at fag end with traffic block 2-3 hrs
- Normally no PLCT working

Rules for NI working

- No run through.
- At a time more than one train movement not permitted
- On D/L all points between up and Dn line should be set to normal, clamp and pad lock. up and DN trains permitted
- Stop at FSS and take off Signals , allow the train with 15 kmph
- Outer most point must be manned LP should pass after PHS
- The SM on duty should nominate the line for reception/despatch with particulars
- In charge of goomty is responsible for correct setting, clamping and padlocking of points and exchange PN
- Responsible to ensure that the line is clear of obstruction
- SM on duty after ensuring by physical verification. PN received from goomty that the said line is free and points are correctly set and locked may permit to take off Signals
- On completion of work gear should be tested jointly then reconnection notice for normal working may be given

G.R.15.05 AND PATROLLING OF LINES**1) Write a detail note on Patrolling**

1. Patrolling is intensive inspection of line by foot arranged in addition to daily inspection of line by the key man.
2. Occasion of patrolling
 - i. Sudden storm or hurricane during day or night
 - ii. Monsoon patrolling
 - iii. Watch at vulnerable locations during monsoon
 - iv. Security patrolling during civil disorders.
- I Sudden storm or hurricane during day or night
 1. Gang man on instructions of gang mate patrol the line.
 2. This is done in addition to monsoon patrolling.
- II Monsoon Patrolling
 1. Patrolling confined mostly to night times from sunset to sunrise
 2. DEN will decide the patrolling based on the report from irrigation department and prepare the patrol charts.
 3. Line divided into different sections called beat sections
 4. The patrolman appointed must patrol their beats according to patrol charts issued by DEN according to Time Table in force.
 5. The patrol charts will be issued to patrolman, AEN, PWI, Running room, Loco foreman, SCOR and station.
 6. Length between station divided into equal beats
 7. Patrol chart prepared including the passenger run between 18 Hrs to 6 Hrs
 8. Beat books maintained by SM should be serially numbered, contains name of patrolman, KM of patrol and its number.
 9. The pages of beat book will contain columns for date, station time of arrival and departure and signature of SM.
 10. Patrolman report for duty as per patrol chart contact SM, obtain beat book with departure time filled in with signature of SM.
 11. He must proceed to other end of beat present the beat book to the SM at other end who will write arrival time and give while he is returning.
 12. If other end is not a beat station then exchange the books at intermediate point with other patrolman and return.
 13. To show he is present and no danger is apprehended, patrolman for every passenger train stand on right hand side, whistle and exhibit his No. plate showing the light of his HS lamp on it.
 14. If after completing the beat his reliever does not turn up, he must continue to patrol the section.
 15. Report to the nearest SM any abnormalities after protecting the site.

16. SM's duties

- i. SM shall enter name and actual time of departure and arrival of patrolman in TSR in remarks columns and station diary.
 - ii. If patrolman does not turn up within 15 minutes of his schedule arrival, shall stop all trains proceeding into block section and issue CO to LP to be alert and proceed with SR 40 Kmph.
 - iii. Inform PWI, AEN & DEN, and SCOR and send gang mate to proceed in the beat section.
- III Watch at vulnerable points.
- IV SECURITY PATROLLING DURING CIVIL DISORDERS
1. On apprehension of civil disturbance DEN contact local Police arrange security patrolling of Railway line.
 2. The patrol beat will be much shorter
 3. Primary duty of patrolman is to protect trains against any condition of danger as tampering of track or obstruction is placed on line
 4. There are three types
 - i. Ordinary patrolling every 4 hours
 - ii. Intensive patrolling every 2 hours
 - iii. Special patrolling – Patrol special will be sent ½ hour before the scheduled departure of Passenger/ VIP special.

STATION DETONATOR REGISTER (APPENDIX VII)

1. The station detonator register maintained at every station.
2. It includes name of fog signalman, stock and utilization of detonators.
3. SM obtain signature/thumb impression of all fog signalmen as having knowledge of rules for fog signalling of trains
4. Usage of detonators mentioned in the register and both SM & fog signalmen shall sign the entry.
5. After his duty hours the fog signalmen shall bring the used & unused detonator and handover to SM who shall enter the same in the register and both sign the entry.
6. The register has four parts.
7. Part I particulars of fog signalmen posted at the station.
8. Part –II Particulars of receipt and stock of detonating signals at the station to be filled whenever detonators received.
9. Part-III Periods of fog. Fog signalmen on duty & details of detonators used
10. Part IV- particulars of issue and testing of detonators at depot station, loco shed etc.
11. It is maintained for every quarter.

12. In part I the signature of fog signalman taken as having knowledge of using the detonator with name and designation,
13. TI to check the register. and stock on hand each time they visit.

APPENDIX VIII - MARSHALLING

Marshalling means the systematic arrangement of vehicles on a train to meet specific transportation needs such as safety, operational efficiency, elimination of delay, optimum utilization of transport capacity etc.,

I. Wagons containing explosives

1. Maximum number of such wagons allowed by goods trains are ten , by mixed trains or parcel trains are three.
2. They shall be separated by dummy wagons as follows: Not less than three dummy wagons from, brake van, passenger coaches, wagons containing dangerous goods or inflammable articles and one from electric or diesel loco.
3. They shall be coupled close by each other as well as to other wagons.

II. Wagons containing petroleum and other inflammable liquids

1. No limit as regards to the number of such wagons.
2. Must be coupled closely.
3. Guard wagons: **class A** (flash point below 23°C)
4. From passenger coaches or brake van and Electric/diesel engines, dangerous goods and inflammable articles- not less than one
5. Other wagons containing explosives - not less than three
6. If 8 wheeler B/V is provided, guard/dummy wagon is not required

Class B (flash point above 23° C but below 65° C)

1. This wagon should be separated from Electric / Diesel Loco, B/Van, Pass Coach by one dummy wagon.
2. Compressed and liquefied gases by two wagons.
3. Explosives by three wagons.

Where 8 wheeler B/V is used, guard wagon is not required

Class C (flash point at 65° C and above)

III. Dead engines

1. Only one dead engine is permitted both on passengers and goods train.
2. It shall be attached next to train engine only
3. Dead engine shall be manned by a competent railway servant not below the assistant Loco Pilot.

4. Dead engine is permitted in the section where double heading / triple heading is permitted.
5. In case of passenger carrying train dead engines shall not be taken into account for the purpose of calculating brake power.
6. Shall not be attached by any superfast, Rajdhani/Shatabdi trains.

IV. Marshalling of SLRs

1. In case of Mail/Express trains, anti-telescopic or steel bodies SLRs must be marshalled as the last coach at both ends of the formations. In the absence of front SLR the coach next to train engine be kept empty and locked.
2. In case of old design SLR (one side passenger portions other side design portion) it should be marshalled in such a way that the luggage portions I trailing outer most or next to engine.
3. In case of M/E trains two anti-telescopic or steel bodied coaches should be marshalled inside SLR at both ends. (Passenger trains - one coach).
4. If wooden bodies SLR's to be used on ME trains it should be marshalled inside of two (incase of passenger one) anti-telescopic coaches.
5. If sufficient number of anti-telescopic SLRs are not available anti-telescopic/steel bodies SLR's to be provided in this order M/E trains, Main line passenger, Branch line passenger short trains.
6. In case of short trains, SLR whether anti-telescopic steel bodies or not should be marshalled in middle. Outer most vehicle shall be 1(1st phase) or 2 (2nd phase) anti-telescopic/steel bodies coaches.

V. Marshalling of four wheelers

1. Single four wheelers must not be marshalled between two bogies, but a single four wheeler may be attached between the engine and a bogie vehicle to avoid delays in shunting en route.

Note: This rule is not applicable when ever banking engine/assisting not required engine is attached in rear of rear brake van.

2. A four wheeler coaching vehicle or goods wagon can be attached to a passenger train either in front i.e. next to engine or in the rear of the train.
3. When four wheeler is attached to the passenger train the maximum speed of the train should not exceed 75 Kmph on BG and 50 Kmph on MG.

VI. Railway Officers saloons –

1. Shall not be attached to race specials, postal express trains and military specials and trains like rajadhani, sathabdi provided with A.C SLRs.
2. Saloons of GM, HODs and CRS may be attached to any train except mentioned above.
3. Not more than one saloon will be attached to a mail train.
4. The saloons of Heads of Departments and Divisional Railway Managers shall ordinarily

be attached to Passenger, parcel and Goods trains.

5. COM's permission must be obtained for attaching their saloons to Mail or Express trains.
6. The saloons of Divisional and other Officers may be attached to Passenger, Parcel and Goods trains only.
7. Officers saloons may be attached to a light engine provided the saloon is fitted with Vacuum/air brake and a tail lamp or a tail board is fixed.
8. A saloon can be attached to a train if the prescribed load permits it.
9. One saloon may be attached to a train in excess of the prescribed load but the actual tonnage must be shown in VG.
10. Saloons while being attached care must be taken to see the detention is minimum and attached operationally convenient.
11. Officers shall not take or send their saloons outside their jurisdiction without the prior consent of their Heads of Department and the COM.

PANEL INTERLOCKING(APPENDIX XI)

1. It is modern signalling system provided at station where points and signals are operated from centrally located panels by mean of push buttons or knobs
2. Provides for relay/solid state interlocking and safety features are augmented for consolidation of interlocking
3. It eases the operation and eliminates time loss and confusion
4. Status of points, signals and reception lines are readily available on hand to SM which makes for smoother operation
5. Principal/ZRTI/MLY is responsible for Initial/Refresher training of staff in rules connected with panels
6. There are two types of panels, they are
 - a) Siemens panel (German system)
 - b) Podanur workshop panel (British system)

SIEMENS PANEL

1. Stations diagrams depicted on panel board
2. Push buttons of different colors codes are provided near the points , signal etc for their operations
3. Buttons for other purposes such as cancellation etc are also provided
4. Normal set up is as follows

Sl.No.	Buttons	Colour	Code
I	Signal buttons.	Red	GN
II	Route buttons.	Grey	UN
III	Point buttons.	Blue	WN
IV	Shunt signal buttons	Yellow	GN
V	Common/group point button	Blue	WWN
VI	Emergency signal/button	Red	EGGN
VII	Emergency point release button (sealed)	Blue	EWN
VIII	Emergency sub route release button sealed and provided with counter.	Blue with dot.	EUYN
IX	Emergency full route release button provided with counter.	Grey	EUUYN
X	a) Point failure alarm, suppression button.	Grey	WXYN
	b) Signal failure alarm, suppression button .	Grey	GXYN
XI	Power failure alarm button.	Grey	NXYN.

5. Buttons used are self restoring type return to normal on release
6. Buttons are required to be pressed for not more than 3 seconds
7. No function can be performed by pressing single button
8. Two related buttons pressed and released simultaneously for operating given function
9. Normal and reverse indications are displayed by strip indications at concerned points
10. The indications flash when operated and become steady when correctly set and locked
11. Points locked indication appears as white dot near point
12. Points cannot be operated when white dot near points available
13. When points are occupied by train, the strip indications assume red
14. Only two signal indications available “red” and ‘green’ for ‘on’ and ‘off’
15. SM ensure route correctly set
16. All points indications are steady
17. Track circuit over route is clear
18. Press signal button ‘GN’ and corresponding route button ‘UN’ simultaneously
19. When signal cleared all track including overlap appear on panel
20. Point lock dot indication appear near concerned point
21. As train passes the aspect goes to ‘ON’
22. Route is released automatically
23. As train occupies each section of route the track indication changes from white to red
24. As train clears each section the indication disappears signifying route release
25. In case the route is not released automatically the route will be cancelled by route cancellation method

POINT POSITION INDICATION SHOWING RED:

- (a) Ensure Station Master's key is IN and turned to unlock the panel,
- (b) Verify the point track indication for occupation,
- (c) If it is clear, call for ESM to attend the track failure, and
- (d) If the particular point is required to be operated under conditions on track circuit failure, operate the point button 'WN' with 'EWN' button.

Podanur workshop panel

1. Station diagram depicted on panel with relevant point/signals/track indication
2. Knobs of different color codes are provided on panel below the diagram. The number of points signals are painted on corresponding knobs for easy, identification.
3. Buttons for other purpose such as cancellation etc are also provided
4. Normal set up is
Signal knobs: red , point knob-black shunt signal- yellow
Siding signal- white emergency route cancellation-grey,
power failure-grey
5. The points and signals are operated by turning the knob switches to required position
6. Three indications are provided on top of each point button viz green-normal yellow-reverse, white-free. Green yellow flash during operation
7. Signal indications repeated on panel are as per the signal on field
8. When signal taken off white strip lights up for entire route indication the setting and locking of route
9. Free indication above each point knob disappear when route is locked
10. As train passes the aspect goes to 'on'
11. Route is released automatically
12. As train occupies each section of route the track indication changes from white to red
13. After the completely train passes the route of the signal the route releases automatically
14. In case the route is not released automatically the route will be cancelled by route cancellation method

a. Panel become blank

1. Check the power supply, if it has failed
2. On electrified section change the switches to other AT or State Electricity supply.
3. On non-electrified section start generator.
4. If power is available and the fault continues, call the ESM/SI
5. Check the position of points and signals
6. Use crank handle to set the points and trains shall be dealt on an authority T.369(3b) duly clamping and pad locking the points.
7. If power is failed and alternative supply is not possible, take action as mentioned above.
8. In non-electrified section DC calling on signal has been provided, this signal can be taken off in case of power failure without starting generator, but it should be done after ensuring the correct position of the points.

b. Point indication flashing when point is operated

1. If the flashing continues for 10 seconds, restore the points to its original position. Try to operate the points 4 to 5 times from N to R and R to N.
2. If the flashing still continues physically verify the points at site and remove any obstruction in the points between the switch and stock rails.
3. Again operate the points.
4. If the flashing still continues, treat the point as defective and call for ESM/SI.
5. Use crank handle to set the point to the required position and after setting they shall be clamped and padlocked.
6. After setting the points, crack handle should be restored to HKT.
7. After setting the points if 'N' or 'R' indication available signals can be taken off after clamping and padlocking..
8. Other wise receive the train on authority T.369 (3b) after clamping and padlocking the points.

c. Route cancellation**Cancellation of route on Siemens panel**

1. Route cancellation procedure will be adopted to cancel the signalled movement or to change the route already set.
2. Before applying route cancellation ensure that the train has not passed the signal.
3. Press the concerned signal button **{GN}** and Emergency signal button **{EGGN}** to bring the signal back to **'ON'** position.

4. Keep pressing '**GN**' and '**EUUYN**' buttons simultaneously till such time cancellation indication white dot appears by the side of the concerned signal.
5. After white dot appears, release '**GN**' and '**EUUYN**' buttons and the flashing cancellation will become steady after an in travel of approximately 2 minutes.
6. Now press '**GN**' and '**EUUYN**' buttons. Keep '**GN**' pressed and release '**EUUYN**' and press concerned route button.
7. All track indications and white dot cancellation will disappear and the '**EUUYN**' counter will record next higher number and the SM shall enter the counter number in the special register with reasons.

Route cancellation on podanur panel

1. Route cancellation procedure will be adopted to cancel the signaled movement or to change the route already set.
2. Keep the signal knob in normal position after ensuring that the train has not passed the Signal.
3. Press and release route cancellation button, white light indication appears below the counter and after **2** minutes route will be free.
4. Route cancellation counter will record next higher number.
5. Flashing white light indication below the counter will disappear.
6. SM shall record the counter number with all the particulars in the concerned register.
7. In case relay interlocked if route is locked after passage of the train, try to cancel the route by normal cancellation. In case route still remains locked cancel the route by calling on route cancellation and entries shall be in red ink TSR.

PROCEDURE FOR TAKING OFF AND CANCELLING CALLING ON SIGNAL

Siemens panel

1. The calling on signal is to be operated only when the train has occupied the calling on track and has come to a stop at concerned Home/starter signal and gets audible buzzer..
2. Then the Main Signal button and COGGN button are to be pressed simultaneously and keeping the main signal button pressed. Route button is to be pressed duly releasing the COGGN button.
3. The point in the route and isolation are operated automatically to the required position and gets locked..
4. A row of White light appear on the panel for the concerned route and flashing circular white indication near the signal button appears

5. Calling on signal will clear after a time interval of 120 sec. and flashing indication will disappear.
6. Each operation of clearance of calling on signal is electrically counted and registered.
7. The on duty SM must record the no. of counter after each operation duly putting his initial in the concerned calling on register.
8. If the route is not cleared automatically the following procedure shall be adopted
 - a. The signal button and EGGN button shall be pressed simultaneously.
 - b. The signal button and the Calling on Cancellation button shall be pressed simultaneously.
 - c. Signal button and route button shall be pressed leaving Calling on Cancellation button.
 - d. This will cause the calling on cancellation indication of the signal to flash.
 - e. After the lapse of 240 sec, the route of the calling on signal shall be released.
 - f. This action gets registered in the calling on signal cancellation counter
 - g. The cancellation of calling on signal shall be recorded in the concerned register by SM.

PODANUR PANEL

1. Calling-on signals shall be operated only when the train comes to a stop after occupying calling ON Track circuit and gets audible buzzer.
2. SM on duty shall turn the calling on signal knob to reverse (R) duly ensuring the correct setting of all the points in the route.
3. The SM on duty now shall press and leave the COGGN push button.
4. A steady **white** light will appear under the relevant veeder counter
5. A row of White light appears on the panel for the concerned route.
6. After the lapse of 120 seconds, the calling on signal assumes OFF aspect which is displayed by a steady **yellow** light.
7. The relevant veeder counter will register next higher number and make entry in the concerned register.
8. The route set will remain locked up even after the arrival of the train and it has to be released only through calling on cancellation.
9. Calling -on signal knob is to be put back to normal and Calling-on cancel button is to be pressed.
10. White light indication appears below the calling on cancel veeder counter.

11. On completion of 240 seconds, the route illumination gets extinguished releasing the route and simultaneously cause the white indication to disappear.
12. Make an entry in the calling on cancellation register.

ROUTE CANCELLATION WHEN ROUTE LOCKED (Appendix XI- 4/SWR)

1. At stations provided with relay interlocking the route may get locked up after the passage of the train due to track circuit failure
2. Try to cancel the route by normal cancellation method and if the route still remains unlocked, the same may be cancelled by 'calling-on' cancellation method as given below.
 - {A} Normalize home signal knob
 - {B} Reverse calling-on signal knob.
 - {C} Press and release calling-on initiation button **{COGGN}**
 - {D} Normalize calling-on signal knob.
 - {E} Press and release the 'calling-on' route cancellation button.
3. A white indication appears near the 'calling-on' route cancellation button and after **240** seconds the route will get released.
4. The 'calling-on' cancellation counter will record next higher number and the SM shall record the same in the special register with all the particulars.

Failure of main power supply:

1. When main power supply fails, an audible warning along with a red light indication is given on the panel.
2. Stop the buzzer by pressing the acknowledgement button.
3. The red light will continue to burn,
4. Start generator No.1 by using push button arrangement. If it does not start, use crank handle to start it,
5. Change the main/generator switch to generator position and change Generator (1)/(2) switch to generator (1) position.
6. Check whether all indications are available on the panel and resume normal working.
7. After 4 hours, if main power supply does not resume, start generator (2) and change over the generator (1)/(2) switch to generator (2) position.

Main power supply resumes:

- 1) Once again audible warning comes on the panel. Stop it by pressing acknowledgement button. Now the red light indication disappears,
- 2) Stop the generator,

- 3) Change the main/generator switch to main position, and
- 4) Check the availability of all indications on the panel.

Frequent failure of main power supply:

If frequent and intermittent failure of main power supply is experienced, to avoid signals going blank in the face of an approaching train, the power supply shall not be changed over to the main till the required train movement is completed even if the main supply resumes. Send a report to DEE.

a) Route Relay Interlocking (RRI) (Operating Manual W.R.)

- The route relay interlocking is an improvement on the panel interlocking and generally adopted for big yards, junctions having large number of points and signals and frequent yard movements.
- In this system, points in the route overlap and isolation get set automatically to the required position when a route setting is initiated from a signal to a required route.
- Entrance- exist (N-X) system is being adopted on Indian Railway but generally N-X type Siemens' system is adopted on Western Railway.

Operation of RRI:

- If the point are required to be operated individually for testing and maintenance purposes, the concerned point button and common group point button (COPB) is pressed simultaneously and released
- .For clearing the signal, the signal button is pressed in conjunction with the relevant route button and the buttons are released after 2 or 3 seconds.
- This operation sets all the points in the route, overlap and isolation to the required position and then clears the signal.
- The whole route from that signal to the signal in advance is also set.
- This is indicated by white light continuously including the overlap. If all the conditions for taking off signals are fulfilled one signal clears 'OFF' aspect.
- The whole route from one signal to the next signal comprises of one or more sub-routes.
- As the train passes the signal and occupies and clears the track circuits in a sequential order the sub-route gets released automatically one by one till the train comes to on berthing track.
- The sub routes released in this way in the rear can be immediately used for any subsequent movement involving that sub-route.
- The time delay ensures that the points in the overlap do not get released when the train is approaching. The approach and back locking is also provided.

b) Block proving by Axle Counters: (Operating Manual W.R.)

- In conventional Block signalling last vehicle check is done by the Cabin man / ASM of receiving station to ensure complete arrival of train.
- Human error can play a vital role in correct detection if a parted bogie stays in the block section.
- This can be avoided if block is proved by the Axle counter.
- Axle counter block working monitors the train movement to the block section.
- Automatic checking up of the clearance of track upto Block overlap and restoration of all signals to ON position.
- After arrival of last train with locking of relevant points ensure reduction in block operating time.
- The SMs at both the stations get automatic display of status of the track (line closed and train on line) and direction of train movement (train going to / train coming from).
- The Axle counter block working is possible for both single line and double line section.
- In single line sections one axle counter is placed at either side of the station.
- The track device is mounted on the advance track circuit of both ends of the block section.
- In double line section both up and down lines have axle counter at the receiving station.
- Track device are mounted on the advance starter and home signal track circuits of each line.
- The system consists of relay logic circuit and combiner / converter units at both ends and relay status data is exchanged by using fails safe digital multiplexing.
- As in count of axles at dispatching station are tallied with out count of axles at receiving station for block proving, the possibility of leaving any stock in the block section is nullified.
- In case of failure of axle counter block resetting is possible with co-operation from the other end of station master.

c) Solid State Interlocking (SSI) (Operating Manual W.R.)

- Relay Interlocking requiring thousands of relays and wirings has inherent limitation in regards to flexibility, high cost of installation, requiring large space and regular/preventing maintenance schedules.
- These factors leads to the high cost of operations which is overcome by new type of interlocking system called Solid State Interlocking (SSI) are being installed on Indian Railways.

- Reduction in Relay room sizes, air conditioners and power requirements are other advantages in addition to reduced cost for installation and alterations even in case of major yard alterations.
- The operating domino type panel is used by SM for operating SSI. Push buttons of the panel are read by input modules of SSI and panel indications are provided through separate panel processors which is connected to SSI through a serial data link.
- Two panels can be provided for End panel operation.
- A data logger logs the input and output of SSI with time stamping for later off-line operational and failure analysis.
- A maintainer terminal is provided to monitor SSI status including failures.
- The reliability of SSI system is very high as the processors are not only duplicated but additional state is provided in Hot standby mode.
- A safety monitor detects the processor failures and switches to standby processors automatically.
- In short this technology provides maintenance free and easy fault localizing system of interlocking giving fault indications on the faulty unit. If the hot standby is not available for automatic change over, faulty unit is replaced by maintenance staff immediately.

Advantage of SSI

- Increase in section capacity
- User friendly operation
- Fail safe technique
- Multiple mode operation

Significance of SSI for operating staff

- Reduce man power
- Centralized operation
- Multiple mode of operation
- Control cum indication Panel
- Video display unit (PC)
- Centralised traffic Control (CTC) permits remote operation
- Significant reduction of traffic block time
- Easier and simple operation

APPENDIX XVII WORKING OF SIDING

1) Write in detail about the working of trains between serving station to siding

Siding are classified into following categories

1. **Public siding** – owned and operated by railways
 2. **Assisted siding** – owners of the siding use it and construction cost jointly by railways and siding owners
 3. **Private siding** – for use of owners of siding entire cost of construction borne by siding owners
 4. **Departmental siding** – sidings used by different department of railways
 5. **Military siding** – owned and entirely used by military authorities.
- These sidings are served through block stations which are called serving stations
- According train from and to siding run under

I ONE PILOT SYSTEM

II MULTIPLE PILOT SYSTEM

COMMON FEATURES OF THE SYSTEM

1. The system to be adopted is decided by Sr. DOM, will be incorporated in SWR.
2. SM maintains “**Pilot movement register**” for recording the details of movements of trains to and from the siding.
4. Guard or in his absence operating staff deputed by SM will be the in charge of the Pilot.
5. Person in charge of pilot responsible for safe working, correct setting and securing of all points concerned using cotter & bolt/clamp and padlock while entering/leaving siding and during shunting operations.

I ONE PILOT SYSTEM

1. SM to ensure clearance before despatch of the pilot by seeing pilot movement register.
2. SM advise in charge of Pilot and LP about work to be done in siding through written memo. Handover the load slip, LV No. & Caution Order to observe both ways on the siding line.
3. SM there after set the route for dispatch, clear shunt signal where provided and hand over written authority to LP in the prescribed format and take acknowledgment. This written authority authorizes LP to go to siding and return to station.
4. SM in a position to admit shall set the route and receive into station by taking ‘off’ shunt signals or pilot in memo.

II MULTIPLE PILOT SYSTEM.

1. SM advises Pilot in charge & LP about work to be done through written memo.
2. Handover the load slip of wagon particulars and LV No. CO to be observed both ways on siding line.
3. SM set the route for dispatch, handover written authority to LP in format and obtain acknowledgement.
4. LP proceed to siding duly observing prescribed SRs if any.
5. Pilot stop start of top points/stop board/ earmarked place at the siding yard.

On arrival inside the siding , Pilot in charge assure the SM duly supported by PN that pilot arrived complete into the siding and line between stations and siding is clear

The P.N issued by pilot in charge is assurance for SM to despatch second pilot to siding

If a second pilot is to be sent where a pilot is already in siding, SM shall mention the particulars of pilot available in siding

8. On completion of work in siding yard, Pilot in charge advise SM the load particulars and LV No. of Pilot to return to station and seek his permission to start.
9. SM shall give permission supported by PN only after ensuring line between siding & stations is free through Pilot movement register.
10. On receiving SM's permission Pilot in charge ensure correct setting and locking of points for dispatch from siding and handover written authority to LP in format.
11. SM in a position to admit set the route & receives the Pilot into station yard by taking 'off' shunt signal or by Pilot in memo.
12. On arrival of pilot at station pilot in charge shall ensure complete arrival and sign in pilot movement register.
13. If private engines are there in siding, the pilot in charge should get written assurance from siding authorities that their shunting is suspended

BLOCK WORKING MANUAL

BLOCK INSTRUMENTS

1. Block Instrument is an appliance which shall be kept in the SM's office at every block station.
2. It is used in the absolute block system to grant or to take line clear
3. It ensures that no train is dispatched into occupied block section.
4. It works like a visual reminder to the SM to ensure the presence of a train in the block section.
5. At present on this railway, token and token less block instruments are in use.
6. On single line token and token less block instruments are in use, but on double line only tokenless instrument is in use.
7. On double line 'SGE' {Siemens general electric} token less block instrument is in use.
8. On single line token less 'DAIDO' handle type, 'KYOSAN' push button UFSBI,SSBPAC and 'PODANUR' push button type instruments are available.
9. In case of single line token, there are two types of block instruments namely 'NEALS TABLET' and 'NEALS BALL' token.
10. Dispatch signals like Advanced starter/ starter/ IB, will be interlocked with the block instrument .
11. When the block instrument is defective, signals will not obey which are interlocked with the block instrument.
12. When the block instrument or the signals interlocked with the block instrument are defective, the authority to proceed given to the driver shall be PLCT [Paper line clear ticket].
13. The 'ON' position of the FSS and LSS proves in the block instrument. 'SNR' [Signal Normal Relay] indication is provided in the Podanur push button type and Daido handle type block instruments.

a) Private Numbers (BWM Part A-3.22,B-3.18,C-3.13)

1. PN books shall be supplied to station by T.I
2. They shall be signed by T.I
3. They shall be numbered in the order in which they shall be used.
4. Only Two books shall be available with the staff on duty.
5. Only one PN book shall be in use at a time.
6. PN shall be given for each train for which SM grants line clear or informs gateman or any other occasion as per rules.
7. The SM shall record the PN given and obtained in the TSR/PN exchange register.

8. When a number is allotted, a line shall be drawn horizontally.
9. The train number, date of issue shall be entered in the column.
10. The TI visiting station shall check the PN sheet.
11. Same number shall not be issued for consecutive train, the SM shall cancel such number and give next number.
12. The SM receiving the number shall be responsible to ensure that no two consecutive numbers are received from the same station.
13. If PN book is lost, misplaced or out of stock, the SM shall prepare a manuscript book till such time a new one is supplied.
14. It shall be preserved and sent to the TI in a sealed cover six months after one year.

b) Train Signal Register (BWM Part A-2.6, B-2.6, C-2.7)

1. It is an important register and SM shall keep separate register for each block instrument.
2. All the signals sent on Block Instrument and timings shall be recorded.
3. The timings recorded shall be actual and can be rounded off to next higher minutes.
4. All the entries in TSR must be made in ink.
5. All signatures shall be made in full.
6. No erasure or overwriting shall be made in TSR.
7. A line shall be drawn through on a wrong entry.
8. Testing of Block instrument, handing over and taking over, Signing ON and signing OFF shall be recorded in TSR.
9. A red ink line shall be drawn below the entry of the last train of the date.
10. The SM shall continue to remain on duty till all the entries of the train are complete. In case of any delay both SM's shall put their initials.
11. The in-charge SM/SS shall daily check the TSR and pass remark in TSR.
12. TSR shall not be removed from cabin/SM without the orders of DRM.
13. TSR shall be retained at the station for one year after the half year in which it is completed.
14. All the TSR books shall be preserved for any pending enquiry if any pending and back shall be kept in safe custody of SM.

c) Red ink entries in TSR (BWM Part A-2.6, B-2.6, C-2.7)

1. When the section is Block Forwarded or Blocked Back.
2. Working of Material Train.
3. M.T., Lorries and trollies entering the block section

4. Testing signals exchanged.
5. Block working is interrupted.
6. Trolleys and lorries working with out line clear.
7. Line block is given to engineering department.
8. Running line is blocked with a stabled load at a station.
9. Balancing of tokens.
10. Train passed IB at ON
11. Any other special occurrence in connection with block working.

d) Station diary

1. It is an important record maintained at all the stations.
2. It is maintained shift wise.
3. The outgoing SM before signing OFF duty complete the columns pertaining to his shift and mention in the station diary.
4. The Incoming SM before signing ON duty shall read the columns written by the previous SM and understand the contents clearly and then take over charge by mentioning in the station diary.
5. The various columns maintained shift wise are
 - i. Date & time and Name of the SM/ASM in that shift & name of other staff working under him.
 - ii. Condition of working of Block Instrument, Block Phone, Group Phones, Auto & BSNL Phones, Control Phones and VHF sets and if failed mention of failure time made in remarks column.
 - iii. Condition of all the seals and locks of the S&T gears at the station
 - iv. Condition of working of all S&T gears of the station and if Disconnection and Reconnection is given mention will be made in the remarks column of the diary.
 - v. Condition of the Up and Dn Block Sections in both directions and if blocked the reasons pertaining to it mentioned in the remarks column.
 - vi. If any trolley on line is in the section or not
 - vii. Conditions of all the running lines and non running lines of the station, if blocked what are the vehicles and on which line and how secured.
 - viii. S.No. of all the caution orders in force in both Up and Dn directions mentioned.
 - ix. Condition of weather, cloudy, raining or drizzling and actual condition of weather to be mentioned
 - x. Whether any weather warning received, if so when and whether messages sent to the concerned officials or not
 - xi. Name of the Patrolman with the arrival and departure timing

- xii. Whether any unusual incidents taken place during the duty hours, if so mention the same in remarks.
 - xiii. Whether any detentions have occurred to the trains during the duty hours and if so the reasons.
 - xiv. Handing over of the duty by the SM/ASM to be mentioned with the last PN issued by him.
6. When Signals are tested by SM or S&T staff entry shall be made in this register
 7. SS/SM of the station should scrutinize the station diary daily and fill the relevant columns pertaining to him.
 8. The columns pertaining to the SS/SM include the following
 - i. Condition of cleanliness of the station buildings, Offices, Yards, Platforms, and waiting halls.
 - ii. Daily Inspection of Signals and S&T gears and record the results in the diary
 - iii. Visits by various Inspecting officials/Officers at the station
 - iv. Signature of the SS/SM with remarks if any.
 9. Inspecting officials whenever inspect station, check the station diary and ensure it is correctly maintained and discrepancies to be reported to the higher officials.
 10. If prescribed form of authority not available and manuscript memo used mention to be made in the diary.
 11. Extension of line block, power block and other blocks mentioned in the diary.
 12. The permit for the motor trolley given, to be surrendered at the next station after clearing the block section to be pasted in the station diary
 13. The track fit certificate or fit certificate of the vehicle/loco issued by the concerned officials after the accident taken place to be pasted in the diary.

a) IS LINE CLEAR WHEN TO BE ASKED' (BWM Part A-3.8,B-3.12,C-3.5)

1. At train originating station for a passenger carrying train 'IS LINE CLEAR' shall be asked five minutes before the booked departure time.
2. In case of a Goods train 'IS LINE CLEAR' shall be asked when the train is formed and ready in all aspects.
3. At an Intermediate station, for all stopping trains with less than five minutes halt 'IS LINE CLEAR' shall be asked when the train is sighted.
4. At an Intermediate station 'IS LINE CLEAR' shall be asked for a run through train seven minutes before the train is due to pass through the station.
5. If the running time of a run through train is less than seven minutes, 'IS LINE CLEAR' shall be asked immediately after receiving 'Train entering block section' signal.
6. The 'IS LINE CLEAR' signal shall not be given until 'Train Out of Block Section' signal has been received for the last preceding train.

7. In order to avoid excessive detention to trains of lesser importance, a Mail/Express train running less than ten minutes late may be detained up to ten minutes to save a delay of 30 minutes or more for a passenger train or 45 minutes to a goods train.(non controlled section)
8. A passenger train running less than 10 minutes late may be detained up to a total of 10 minutes to avoid a delay of 30 minutes or more of a goods train.(non controlled section)

b) STOP AND EXAMINE SIGNAL (BWM Part A-5.6, B-5.7, C-5.8)

1. When SM observes anything unusual (other than absence of tail lamp or tail board) on a train during its passage through the station, such as goods falling off, vehicle on fire, broken axle or coupling etc., he shall try to stop the train. If he failed to stop the train, stop & examine signal (six pause one on block instrument) may be sent to SM in advance
2. SM to intimate the nature of irregularity.
3. SM in advance acknowledges by giving six pause one and on arrival, even a run through train out of course and take remedial action.
4. After ensuring all is clear, send “train out of block section” to SM in rear
5. SM of the station who notices or suspects it would have caused damage or obstruction to block section in rear, inform the SM in rear about irregularity
6. Both SMs to issue CO for trains entering the block section until it is confirmed all is right
7. On double line CO will be issued to the LPs proceeding on the adjacent line.

c) VEHICLES RUNNING AWAY INTO THE BLOCK SECTION (BWM Part A-5.9,B-5.10,C-5.11/12)

1. SM aware vehicles escaped in Block Section shall give vehicles running away into the block section signal (six pause four/six pause five bell beats) to the other SM.
2. No train shall be allowed to enter Block section from either end.
3. If any relief engine has to be sent only after information is received that vehicle has come to a stop or after 30 minutes more than the running time of slowest speed goods train in that direction.
4. SM on receiving signal, acknowledge and take protective measures as may be considered expedient under the circumstances to prevent accident.
5. If station is on gradient falling towards next station, SM shall try to stop the vehicles by covering rails heavily with sand, earth or small broken stones for great distance and set points to loop line or dead end siding.
6. If can't be stopped, the trailing points set to force trail through them
7. If no train approaching or line is not on a falling gradient, the vehicles may be allowed to run through and warn the other SM.

8. If vehicle contain passenger shall not be set to dead end siding unless to prevent more serious accident.
9. On controlled section, SCOR be informed.
10. If portion of train or BV has run away detonators placed on track to attract attention of guard.
11. When the obstruction has been removed, Train out of block section signal shall be sent .

3) How to obtain Line clear through control and VHF set ?

LC TROUGH CONTROL(BWM Part A-8.8,B-8.8,C-8.8)

1. Whenever the station block instrument/phone is defective and no other means of communication is available, the SM shall immediately inform the SCOR & other concerned officials through a message.
2. Both SMs shall record all the particulars in TSR with red ink and exchange messages in a pro-forma as given in the Block working manual
3. The SCOR shall record the failure on the control chart and shall acknowledge while taking over / handing over the charge.
4. The SM who is having a train to dispatch will take permission from SCOR and the SCOR shall call the SM at other end on control phone and establish communication between both SMs.
5. Both SMs before granting / obtaining line clear shall identify each other by calling out their station names and also their full names.
6. Both SMs shall repeat the arrival and departure timings of last three trains to the SCOR, who shall cross check the timings with the control chart.
7. The SM who requires line clear shall clearly mention train number, description of the train {Express/Passenger/Goods} and also the direction {UP/DN}.
8. The SM at other end before giving line clear supported with a PN shall comply with all the conditions for granting line clear.
9. Both SMs shall record in TSR with red ink the train number in full, description, arrival & departure timings of each train run between two stations during block failure.
10. Both SMs shall record the means of communication through which line clear is obtained or granted on the T/A 1425{outward} & T/B 1425{inward} documents.
11. After obtaining line clear the SM shall prepare the Paper Line Clear Ticket on Form No. T/C 1425 for UP direction & T/D 1425 for DN direction and take the acknowledgement of loco pilot in T/A 1425 before handing over PLCT to him..
12. Both SMs shall record the 'Train Entering Block Section' and 'Train Out Of Block Section' particulars in T/A 1425 & T/B 1425, TSR, communicate each other on control phone and also inform the SCOR.

13. All trains shall be stopped for issuing PLCT, the serial numbers of PLCTs issued to each train shall be recorded in remarks column of TSR against the entry.
14. Whenever line clear is cancelled, both SMs shall record the same in the 'D' column of T/A 1425 and T/B 1425 duly informing the SCOR.
15. The SCOR shall co-ordinate between both SMs to fulfill all the transactions and record all the PNs in the control chart which were issued by SM for granting line clear and also ensure that the block section is clear at the time of granting line clear.
16. Both SMs shall record the name of the Section controller in the remarks column of the TSR.

Line clear through VHF set. (BWM Part A-8.9,B-8.9,C-8.9)

1. Before actually signalling a train through VHF, the SM shall exchange messages in the proforma given in the BWM and record in red ink in TSR.
2. SM of both stations contact each other on common frequency/channel in their VHF sets and switch over to the freezed channel
3. The common channel and freezed channel mentioned in SWR
4. Both SMs shall cross check PNs given for last three preceeding trains, trains nos. and record these particulars in red ink in TSR.
5. SM at despatching clearly mention train no. In full description and direction for which LC required.
6. SM at other end after complying condition for granting LC shall grant LC supported by PN.
7. The train no., description, direction and arrival/departure of each train and PN obtained issued recorded in red ink in TSR by both SM's
8. SM record the means of communication in T/A.1425 and T/B.1425
9. After obtaining L/C SM prepare PLCT (T/C.1425 or T/D.1425) and deliver to LP taking his acknowledgement in T/A.1425
10. S.No. of PLCT mentioned in remarks column of TSR for each entry
11. SM's communicate train entering block section or train out of block section in TSR.
12. When L/C cancelled same to be recorded in 'D' column
13. All trains stopped for issue of PLCT
14. SM switch over to common channel after necessary transaction completed
15. the common and freezed channel are
 - Common channel/frequency - channel 13
 - Freezed channel/frequency -
 - channel 5 - 1st adjoining station
 - channel 6 - 2nd adjoining station
 - channel 7 - 3rd adjoining station.

- At junction station for other section
 - channel 15 - 1st adjoining station
 - channel 16 - 2nd adjoining station
 - channel 17 – 3rd adjoining station.

a) PLCT working (BWM Annexure)

- Failure/suspension of B/I, LC shall be obtained by alternative means
- Both SMs shall exchange messages in the proforma and record in the TSR in red ink.
- Ensure that the entries in the TSR are complete and block section is clear
- The LC enquiry message for despatch (T/A 1425 out ward), lcn received(T/B1425 inward) shall be written by both SMs with initials
- No abbreviation or curtailment of words or train description shall be used.
- The SM stamp should be affixed on PLCT
- All entries shall be made in red ink in TSR
- When block working is resumed make entry in red ink in TSR showing time and date of resumption advise each other under exchange of PNs

b) Testing signal (testing block instrument by S&T staff)

- ❖ The 'Testing' signal shall be used for the purpose of testing the block instruments.
- ❖ Authorised persons to test the block instrument are SI and ESM.
- ❖ The Instruments and Apparatus connected with them may only be tested.
- ❖ Whenever no authorised person is present at one end, he may request the Station Master to test the block instrument on his behalf.
- ❖ The block instrument and apparatus connected with them shall be tested only when the block instrument is displaying 'Line closed' condition.
- ❖ Assuming that the SI/ESM is at 'X', he shall first exchange testing signals(16) with 'Y'.(Station Master)
- ❖ The SI/ESM shall obtain line clear and shall take 'OFF' the Last Stop Signal at 'X' .
- ❖ The SI/ESM shall then cancel 'Line clear' and again attempt to take 'OFF' Last Stop Signal at 'X' to see that it cannot be taken 'OFF'.
- ❖ This operation shall be repeated in the reverse direction, the Station Master at 'Y' commencing with the 'Testing' signal.
- ❖ Whenever the SI/ESM opens the instrument or for maintenance work or when fixing a new instrument, he shall test the block instrument,

- ❖ After the 'Testing signals' are exchanged, the Station Master shall ensure that the block instrument and other appliances are restored to normal and locked and sealed, whenever required.
- ❖ Entries in red ink shall be made in the Train Signal Register immediately below the entries for last train and signed by both the SI/ESM and the Station Master.
- ❖ The time given shall be the time when the 'Testing' signals were completed.

Cancel last signal

The 'Cancel last signal' cancels the last signal given from the block station from which it is sent.

Where 'Is line clear' signal has been forwarded and it is afterwards found that the train to which it referred has to be detained for shunting or other purposes, or has to return to block station from which that signal was sent, the 'Cancelling signal' shall be sent to the block station in advance, so that the previous signal may be cancelled.

a) Cancellation of line clear before the train enters block section

1. SM of X (sending station) shall ask consent for cancellation
2. Explain the circumstances supported by a Private Number.
3. SM of Y (receiving station) will give consent and repeat the PN.

i) Token Block instrument

1. Insert token in the block instrument,
2. SM will give cancel last signal code and prolong the last beat.
3. SM Y turn the operating handle to Line closed position and
4. Give cancel last signal and prolong the last beat.
5. SM X will turn the operating handle to line closed position.

ii) Daido token less handle type block instrument

1. SM X shall turn cancellation switch S-1 for cancellation from Normal to Reverse.
2. Wait for 120 seconds until 'Time Release' Indicator shows "Free".
3. Concerned counter registers next higher number.
4. Restore S-1 to normal and send 'Cancel last signal.'
5. Keep PB 1 and PB 2 pressed for 5 seconds on the last beat.
6. SM Y will turn the block handle to line closed position and
7. SM Y will give cancel last signal and keep pressing PB1 and PB 2.
8. SM X will turn the block handle to line closed position.

iii) Podanur/Kyosan push button block instrument

1. SM X shall operate the 'Cancellation' button/ along with Bell Code Button (BCB).

2. Counter registers next higher number.
3. Time release 'Free' indication appears after 90 seconds
4. SM X give 'Cancel last signal' bell, press 'Line closed' button and BCB
5. At the end of the last beat, SM Y will co-operate by pressing 'Line closed' button and Bell Code Button till 'Line closed' indication appears.
6. 'Line closed' indication appears in both the block Instruments.
7. Acknowledge 'Cancel last signal' bell by SM Y.

iv) Double line SGE block instrument

1. SM X shall give 'Cancel last signal'.
2. SM Y will acknowledge 'Cancel last signal';
3. Holding the bell plunger pressed during last beat, SM Y turn the operating handle to 'Line Closed' position.
4. TCF dial displays 'Line Closed' indication at Y.
5. TGT dial displays 'Line Closed' indication at X.

b) Closing of Block Section after pushing back of the train:

1. SM X shall advise about the train pushing back.
2. SM Y will note the advice.
3. Put back all relevant signals to 'ON' position.
4. SM X on complete arrival of train ensures the conditions for closing the block section are complied give clearance time supported by Private Number.
5. SM Y will repeat PN and note arrival time.

i) Token Block instrument

1. SM X will give 'Train out of block section' signal and prolong last beat.
2. SM Y will turn operating handle to 'Line closed' position.
3. SM Y prolong the last beat.
4. SM X will turn the Operating handle to 'Line closed' position.

ii) Daido token less handle type block instrument

1. Before pushing back SM X shall operate S2 switch
2. Take off reception signals.
3. On complete arrival of train restore the S-2 to normal.
4. Send 'Train out of block section' signal through PB 1 and keep PB 2 also pressed for 5 seconds on the last beat.
5. SM Y turn block handle to 'Line closed' position.
6. Acknowledge 'Train out of block section' signal and press PB 1 & PB 2 for 5 seconds on the last beat.
7. SM X turn the block handle to 'Line closed' position.

iii) Podanur/Kyosan push button block instrument

1. SM X shall take 'OFF' the reception signals.
2. On arrival operate the 'Cancellation' button along with the Bell Code Button.
3. Counter registers next higher number.
4. SM X will give 'Train out of block section' signal; press BCB along with 'Line-closed' button
5. At the end of last beat, SM Y will press BCB and 'Line closed' button till 'Line closed' indication appears.
6. 'Line closed' indication appears at station X.
7. SM Y will acknowledge 'Train out of block section' signal

Shunting or obstruction on double line in the block section in advance (right line)- (a) Block Forward (G.R.1.02(9)).

Block forward (Rule 1.02.9) means to despatch a message from a block station on double line intimating to the block station immediately in advance the fact that the block section is obstructed or is to be obstructed.

1. SM X (sending station) will intimate about shunting.
2. If SM 'Y' (receiving/advance station) is prepared to allow the block section to be obstructed, he will give Private Number.
3. SM Y will turn the operating handle to Train On line position.
4. SM X will give block forward time and train entering block section time to Y.
5. After completion of shunting SM X will give clearance time supported by PN.
6. SM Y will note the timings and PN and turn the operating handle to line closed position.
7. Entries shall be made in red ink in TSR by both SMs.

b) Shunting or obstruction on double line in the block section in rear (wrong line)-Block back (G.R.1.02 (8)).

Block back [Rule 1.02 (8)] means to despatch a message from a block station intimating to the block station immediately in rear on a double line or to the next block station on either side on a single line, that the block section is obstructed or is to be obstructed.

1. SM X (sending station) will intimate about shunting.
2. If SM 'Y' (receiving/rear station) is prepared to allow the block section to be obstructed, he will give Private Number.
3. SM X will turn the operating handle to Train On line position.
4. SM X will give block back time and train entering block section time to Y.

5. After completion of shunting SM X will give clearance time supported by PN and turns the operating handle to Line closed position.
6. SM Y will note the timings and PN.
7. Entries shall be made in red ink in TSR by both SMs.

Circumstances Block Instrument interrupted and block working suspended.

1. Call attention cannot be obtained on the block instrument.
2. The bell codes are received indistinctly or failed together.
3. When there is reason to believe that there is a contact between the block wire and any other circuit.
4. The instrument or its battery counter is found unlocked or seal missing.
5. If the block instrument can be normalized before the arrival of the train.
6. When LSS lever can be reversed without line clear except token section.(Taking off LSS without line clear)
7. A train is required to enter the obstructed block section due to an accident or any other cause.
8. Operating handle cannot be turned to any of the three position in spite of correct process of operation (except in push button)
9. When a train arrives at a station without ATP.
10. Glass front of galvanometer/dial indicator if broken (except in token less Podanur BI)
11. When a material train/TTM/Tower wagon is required to be taken into a block section after line block has been imposed.
12. No deflection in the galvanometer for bell beats in token and token less handle type BI.
13. Line clear cannot be cancelled after correct operation.
14. If it is known that the instrument is defective in any way not specified above.

Token Block Instrument

1. Token broken/damaged
2. There is no token in the instrument.
3. Token lost or over carried.
4. FSS/LSS key or LSS control key
5. Token cannot be extracted even after exchange of correct bell codes.

Token less Block instrument

1. Train on line buzzer fails
2. Train arrival buzzer fails
3. Train on line indication fails to appear after the train has entered the block section.

Double line block instrument

1. Indication of the TGT of X station does not correspond with TCF of Y station.
2. Whenever single line working is introduced.
3. When train entered block section on line clear and pushed back.
4. When the operating handle cannot be turned to TOL or 'Line Clear' or to 'Line Closed' in the process of granting or cancelling 'Line Clear'

Bell codes (Special signals)

<u>Ref.No</u>	<u>Indication</u>	<u>Code how signaled and ack.</u>
1	(A) Cancel last signal (B) Signal given in error	00000
2	(A) Obstruction danger signal (general)	000000
3	(B) Stop and examine train	000000 - 0
4	(C)Train passed without tail lamp or tail board	000000 - 00
5	(D) Train divided	000000 - 000
6	(E) Vehicles running away in wrong direction on double line or into the block section on single line	000000 - 0000
7	(F)Vehicles running away in right direction on double line	000000 - 00000
8	Testing	000000000000000000

ACCIDENT MANUAL

Accidents: (AM 101) For the purpose of railway working, accident is an occurrence in the course of working of railway which does or may affect the safety of the railway, its engine, rolling stock, permanent way and works, passengers or servant or which affect the safety of others or which does or may cause delay to train or loss to the railway. For statistical purposes accident has been classified in categories from 'A' to 'R' excluding 'I' and 'O'.

Classification of accident: Accident is classified under the following heads: **(AM 101)**

1. Train accidents
2. Yard accidents
3. Indicative accidents
4. Equipment failure
5. Unusual incidents

1. Train accidents:

Train accident is an accident that involves a train. Train accidents further divided as

- a. Consequential train accidents and
 - b. Other train accidents
- a. Consequential train accidents: Having serious repercussions in term of loss of human life, injury, loss to railway property or interruption to rail traffic.

Collision - A-1 to A-4, Fire - B-1 to B-4, Level crossing - C-1 to C-4

Derailments - D-1 to D-4, Miscellaneous - E-1

- b. Other train accidents: Not covered under consequential train accidents.

B-5, B-6, C-5 to C-8, D-5 and E-2.

II. Yard accidents: Take place in yard and does not involve train- A-5, B-7, C-9 and D-6.

III. Indicative accidents: They are serious potential hazards.

Averted collision – F

Breach of block rules – G

- Train entering block section without any authority or with improper authority
- Train received on blocked line not constituting an averted collision.
- Train received on/or entering wrong line at a station or catch siding or slip siding or sand hump etc.,

Train passing signal at danger – H

1. When train passes a fixed stop signal including a banner flag or Engineering stop indicator (other than IB, Automatic & Gate signals) at danger without any authority or with an improper authority.

2. The fact that a Loco Pilot has passed a Stop signal at danger, should be brought to the notice of SM through a written memo by the guard of train.
3. SM / ASM / Pointsman must confront the Loco Pilot and Guard with regard to the position of the signal and the position of the lever / knob concerned.
4. The position of the signal and route should be recorded by the SM and signed by the SM, Loco Pilot, Guard and other witnesses, if available.
5. The distance by which the train has passed the signal should be recorded by the length of engine + coach/wagons and / or telegraph/OHE posts, or by measuring the actual distance in metres.
6. In the night time, the brightness of the signals should be noted. The weather condition such as foggy/tempestuous condition also be recorded.
7. If the Loco Pilot is required to use glasses, it should be checked whether he was in possession of them and using them.
8. Arrangement for testing brake power of the train shall be made by Officers / Sr. Subordinates at the nearest C&W examination point.
9. Breathalyzer test of the Loco Pilot/ALP should be done immediately and blood samples of LP/ALP should be collected.
10. The Loco Pilot /ALP shall be sent for further medical examination.
11. Data logger output in relation to this incident should be obtained from S&T officials.

IV. Equipment failure: Failure of loco, rolling stock(J), permanent way(K), OHE(L), S&T equipment.(M)

Failure of loco, rolling stock (J),

Failure of Permanent way (K),

Failure of OHE (L),

Failure of S &T equipment.(M)

V. Unusual incidents: Related to law and order but not resulted into the train accidents –

Train wrecking/sabotage (N), Casualties (P), other incidents (Q) & Misc-cattle run over(R).

Train wrecking/sabotage/Bomb ballast/Explosion/hijacking- (N),

Incident of persons falling out of train or run over -(P),

Other incidents- Natural death or murder or suicide or robbery or blockade to train services - (Q) &

Misc-vehicle running away, cattle run over or floods, breaches or landslides -(R).

Engine Failure and Time Failure: (AM 113)

- (a) An engine is considered to have failed when it is unable to work its booked train from start to destination. Reduction of the load for a part of the journey would constitute an engine failure, provided this is due to a mechanical defect on the engine or mismanagement on the part of the engine crew.

- (b) When an engine causes a net delay of one hour or more throughout the entire run owing to some mechanical defect or mismanagement on the part of the engine crew, it would constitute a time failure. Trains stalling due to engine trouble or mismanagement by the engine crew necessitating working or the train in two portions would constitute a time failure provided the net loss of time on the entire journey exceeds an hour.

Accident Sirens (AM APPENDIX I -1)

- 1) 2 long - Accident takes place in the loco shed or traffic yard adjoining loco shed.
- 2) 3 long - Accident takes place at out station but main line is clear. Only ART required.
- 3) 3 long one short - Accident takes place at out station but main line is clear and the relief train is to be turned out with medical van.
- 4) 4 long - Accident takes place at out station and main line is blocked and the relief train is to be turned out without medical van.
- 5) 4 long one short - Accident takes place at out stations the main line is blocked and the relief train to be turned out with medical van.

The duration of long given shall be 1/2 minute and 5 seconds for short with 1/2 minute interval between two successive calls.

MRT and ART (Appendix 2 a)

- MRT Stands for medical Relief train
- MRT Comprises of c) Medical van b) Auxiliaxy Van
- ART Stands for Accident relief Train
- ART Comprises of

- i) Crane
- ii) Hydraulic rerailing equipment (MFD or LUAS)
- iii) Power and tool van
- iv) engineering equipment van
- v) Mechanical equipment van
- vi) Electrical equipment van
- vii) Staff kitchen car and brake van

MFD stands for-Maschiven Fabrick Deutschland

- Mock drills shall be conducted once in 3 months
- ART shall be turned out within 30 minutes during day and within 45 minutes during night.
- MRT shall be turned out within 15 mts with a direct despatch facility and within 20mts without direct despatch facility.

a) Serious accidents: (AM 102)

Accidents to a train carrying passengers which is attended with loss of life or with grievous hurt to a passenger or passengers in the train, or with serious damages to railway property of the value exceeding Rs 25, 00,000. Any other accident which in the opinion of the Chief Commissioner of Railway Safety or Commissioner of Railway Safety requires the holding of an inquiry by the commissioner of Railway Safety shall also be deemed to be a serious accident. However the following shall be excluded.

- a. Cases of trespassers/passengers run over or /and injured or killed through their own carelessness.
- b. Cases of railway servant or other persons holding pass/tickets are killed or grievously injured while travelling outside rolling stock but excluding vestibule or run over at LC or elsewhere on track by a passenger train.
- c. No railway servant/passenger killed at LC gate accident unless CRS is of the opinion to hold an inquiry by him self.

b) Averted collision: (AM 111)

1. It is a circumstance under which, but for the vigilance shown by any person or persons, a collision would have occurred.
2. Collision was averted due to the vigilance shown by any person or persons.
3. Averted collision may be in the block section or within the station limits between the trains or between a train and an obstruction.
4. If, outside the station limits, the distance between the two trains or the train and obstruction is 400 mts or more- it may not be treated as an averted collision.
5. If, within the station limits there is an intervening stop signal at danger governing the moving train and that moving train averted the collision by obeying the stop aspect - may not be treated as an averted collision
6. Averted collisions come under indicative accidents.
7. Inside station limits the SM shall immediately reckon the distance between the two trains or between train and obstruction in the presence of Loco Pilot and Guard and enter it in the station Diary. In case of outside station limits the Guard of train shall reckon the distance between two trains or train and obstruction in the presence of Loco Pilot and enter in the CTR.

2) What are the duties of Station Master in case of serious accident to passenger carrying train?

The following objectives are to be achieved in dealing with the accidents/disasters

- i. Save life and alleviate suffering
- ii. Provide succor and help to the affected/stranded passengers at the site of the accident
- iii. Quick transmission of information at all levels.

iv. Preservation of clues and evidences.**v. Ascertain the cause of the accident.****vi. Protect property including mails.****vii. Restoration of through line of communication at the earliest.**

1. On D /L , stop the train proceeding on opposite line .
2. Report SCOR and adjacent SMs.
3. Control must be given the details like – Time, nature of Accident , brief description of the accident etc.
4. Sound the Sirens where ever provided.
5. Advise sectional TI and other officials.
6. Call for off duty SMs and Points men for assistance.
7. Keep the position of the point knobs, signal knobs , route counters etc. intact till they are jointly recorded by the Supervisors.
8. Keep lines free for receiving un affected coaches / wagons , ART , MRT etc.
9. Arrange for Medical Assistance- Arrange first aid and take the assistance from staff qualified in first aid.
10. Call local doctors and inform dispensaries and hospitals
11. Refreshments to Passengers. Arrange drinking water and catering to the passengers and arrange to protect their luggage.
12. **Transport Assistance.** Arrange immediate transport of injured to the hospitals / dispensaries.
13. **Security Assistance-** In case of suspected sabotage, preserve clues, lodge FIR with GRP of the jurisdiction. Arrange photographer and commence restoration work after getting clearance from police.
14. **Communication Assistance-** Arrange shelter for injured, open emergency cell and arrange to give information about dead and injured.
15. Controlling SM must proceed to the Site of Accident.
16. SM shall ensure securing of Records like PN sheets ,TSR, Line admission book ,Engine Log book, speed charts from Loco etc.
17. Arrange ex-gratia amount to the injured and kin of the dead as per the extant rules and cash can be drawn from station out standings.

WEATHER WARNING (AM Appendix VI)

1. Whenever storms, gales or heavy rainfall are expected the meteorological department issues telegram of warning.
2. Rainfall above 5 cm in 24 hours is considered as dangerous.
3. Heavy wind velocity above 65 kmph is considered dangerous.
4. SCR divided into 7 zones for the purpose of weather warning.

5. Weather warning telegram classified as 'XXW' (weather warning) or 'OOO' weather immediate.
6. State meteorological centers functions at Hyderabad (AP), Bangalore (Karnataka), Mumbai (M.S) and Cyclone warning centre at Visakhapatnam.
7. These telegrams are issued to the central control office and divisional control offices concerned.
8. The Chief Controller of Central Control shall give the copy of message to all controls i.e. Engineering Control, other controls and Divisional Control office concerned. It is the responsibility of these controls in their turn, to inform the officers, Supervisors and all concerned pertaining to their departments for taking necessary steps to be in readiness for meeting any eventualities.
9. The Chief Controller of the division shall give the copy of message to all controls i.e. Engineering Control, other controls. It is the responsibility of these controls in their turn, to inform the officers, Supervisors and all concerned pertaining to their departments for taking necessary steps to be in readiness for meeting any eventualities.
10. The Section Controller shall repeat the message to Station Masters on section likely to be affected and record the names of Station Masters on duty to whom the telegram has been repeated
11. On receipt of weather warning from SCOR, SM take action as follows:
 - i. SM where AEN/PWI are headquartered immediately hand over a copy of verbatim telegram and obtain acknowledgement
 - ii. If they are not available at HQ SCOR advised who shall be responsible to repeat.
 - iii. SM call for gang mate and explain him and obtain his acknowledgement.
 - iv. A register(Weather warning Register) maintained at station in prescribed Performa includes
 - A. Date & time of receipt
 - B. Text of message in full
 - C. Names & designation of officials to whom message repeated and their acknowledgement taken.
 - D. Suitable action by PWI/Gang.mate will be taken including introducing monsoon patrolling
 - v. A copy of the message on which acknowledgement is obtained should be pasted in the Weather Warning Register

DISASTER MANAGEMENT

102 DEFINITION OF 'DISASTER'

As per DM Act-2005, Disaster is defined as ***“means a catastrophe, mishap, calamity or grave occurrence in any area, arising from natural or man-made causes, or by accident or negligence which results in substantial loss of life or human suffering or damage to, and destruction of property, or damage to, or degradation of environment, and is of such a nature or magnitude as to be beyond the coping capacity of the community of the affected area”.***

The term "Disaster" envelops a wide spectrum of occurrences or consequences leading to a mishap. Disaster is an unusual occurrence, which is characterized by sudden calamitous event, having loss of life, injury, great material damage, loss and distress.

Further, vide Railway Board letter No. 2003/Safety – (DM)/6/2/Pt. dated 06.01.2009, the definition of Railway Disaster and co-ordination of DM Plan was revised. Accordingly, the Railway Disaster is defined as:

“Railway Disaster is a serious train accident or an untoward event of grave nature, either on the railway premises or arising out of railway activity in that area, due to natural or man-made causes, that may lead to loss of many lives and/or grievous injuries to a large number of people, and/or severe disruption of traffic, necessitating large scale help from other Government / Non-government and Private Organisations.”

Despite the earnest efforts taken to manage every disaster efficiently, in some train accidents involving heavy casualties, the relief and rescue operations could not be resolved satisfactorily. Accidents involving heavy casualties and in difficult terrain with steep gradients & number of bridges, tunnels, cuttings and also bad weather conditions, make the rescue and relief work more difficult and necessitates the assistance of specialised outside agencies in addition to Railways' own resources.

701 Phase I – GOLDEN HOUR

In the period immediately after the accident where grievous injuries to passengers takes places, action has to be taken on war-footing by the Railway Authorities to render definite medical care which gives relief to affected passengers and also help them to overcome the trauma.

If a critical trauma patient is not given definite medical care within one hour from the time of accident, chances of his ultimate recovery reduce drastically, even with the best of medical attention thereafter. This initial one hour period is generally known as “The Golden Hour”.

- ✓ Render definite medical care within Golden Hour.
- ✓ Arrest bleeding and restore blood pressure within an hour.
- ✓ Persons under shock shall immediately be relieved of shock.
- ✓ Transport the casualties to the nearest hospital.

During this Golden Hour, following efforts should be made:

1. On-board staff like, LP/ALP/Guard/TTE/GRP/RPF/Pantry Car/AC Coach Attendants, etc., shall pass on the information quickly to the nearest station or to control about the accident. They shall render first-aid and take the help of other volunteers travelling by train or from the site of accident location to rescue the passengers.
2. Senior-most officer travelling by the train whether 'on' or 'off' duty shall take charge as Officer in-charge (OIC) at site.
3. All Railways officials shall report to the Guard and work as per the directions of the OIC.
4. SMs of the adjoining stations must inform Control about the accident and the nature of assistance required.

i. 1. NATURAL DISASTERS:

Natural disaster in general like floods, cyclones is forecasted; whereas others like earthquakes, landslides etc. are difficult in nature to forecast. But preparedness for floods & cyclone will help in tackling situation for other natural disasters also.

2. Landslide:

Whenever landslide is expected / experienced due to heavy downpour, all train services to be regulated. Rescue team to be rushed for restoration work.

3. Floods:

Based on the weather forecast warnings regarding impending flood condition, the following steps should be taken:

- i. Watchman at important bridges and at vulnerable points to inform flow of water to be posted..
- ii. Shifting of all movable equipment around the bank.
- iii. If time permits, sandbags, dykes can be constructed to ensure safe passage of trains.
- iv. Regulate the train service till the flood recedes.
- v. Evacuate people on train / at station and move them to a safer place.
- vi. Contact Fire brigade, Naval, Army, Air force, Local boat man and arrange Divers and boats.
- vii. With the co-ordination of local authorities, arrange temporary shelter in nearby schools, marriage halls, community centres etc.
- viii. If necessary, arrange coaches to accommodate the affected.
- ix. Seek assistance from voluntary organisation and arrange safe drinking water, food, medicines, etc.,
- x. RPF and GRP in co-ordination with local Police shall arrange protection.
- xi. Keep constant communication with Divisional Control Office.
- xii. When people are marooned by floods, arrange air dropping of food packets, clothes etc., with the assistance of Civil Administration.
- xiii. Contact SJAB (St. John Ambulance Brigade), local doctors and provide medical care to the affected.

4. Cyclone / Storm:

- i. When a train is caught in a cyclonic storm at mid section/station:
- ii. Stop the train clear of cuttings, bridges and embankments.

- iii. Guard, Loco-Pilot and other Railway servants on train shall keep open windows and doors of all coaches.
- iv. At stations where Anemometer is installed, shall not start trains when the wind velocity exceeds the permitted level of 65 KMPH.
- v. At other stations when the wind velocity exceeds safe limits, SM must consult with Control and GDR of the train before starting.
- vi. Make announcement frequently to warn the public about the storm/cyclone.
- vii. Take all necessary action to provide shelter and other assistance as in the case of floods.

5. PREPAREDNESS FOR NATURAL DISASTER FROM DEPARTMENTS

Transportation Department

- i. Requirement of essential staff and their deployment shall be assessed by Sr.DOM of respective Divisions.
- ii. SMs of the warned area stations, in co-ordination with assistance respective Departments, shall ensure all station equipments like Generator, Emergency light VHT sets,
- iii. First Aid equipment etc. are in good condition.
- iv. SMs will also ensure proper securing of stabled coaches / wagons as per extant instructions.
- v. COM of the Railway will issue instructions regarding regulation, diversion or cancellation of trains in the warned section with information to CPRO.

Commercial Department

Shall alert arrangements to open enquiry offices at areas likely to be affected.
Shall ensure arrangement for food, water and other requirement at vulnerable places.

6. Bomb threat/Blast:

Person receiving call regarding bomb threat:

- i. Should attempt to gain as much information as possible from the caller ID devices, time set, location, reason / purpose of the act, dialect mannerism and identity of the caller.
- ii. The person receiving call should inform higher ups who in turn shall alert the Disaster Management team (Bomb detection squad).
- iii. Also, alert Police, Fire Brigade and Explosive Department.
- iv. Pass the information to all Departments concerned.
- v. Take initiative for evacuation of all from the premises.
- vi. Person noticing a bomb like object, should bring it to the notice of the nearest available Officer.
- vii. Inform Railway Police, RPF, and Bomb detection squad.
- viii. Ensure all persons are away from the spot and to avoid unnecessary crowding near the area.
- ix. Inform control to take further steps of regulating the train services.
- x. Wait for clearance from the Police Department to restore normal working.

7. Tampering of Railway fittings causing accidents & Placing of foreign particles on track to cause disruption to traffic

A staunch vigil should be kept by introduction of special patrolling over the area as and when warranted with assistance of RPF personnel.

Specially trained persons shall be drafted for duty over the area if required.

8. Radiation Emergency/Personal Injury Involving Radioactive Material Contamination

- i. Render first aid immediately for serious injuries.
- ii. As far as possible, without causing harm to the victim, monitor the injured and remove contaminated clothing and gross personal contamination.
- iii. Remove and bag all contaminated clothing.
- iv. Call Fire Station, bomb squad, and police.
- v. Skin contamination should be cleaned using mild soap and warm water.
- vi. Use portable survey meter to monitor for remaining contamination. If not free of contamination, re-wash and re-survey.

9. What to do upon suspected letter/package receipt

- i. Call Police/Fire Service/ Bomb Squad.
- ii. Handle with care
- iii. Don't shake or bump
- iv. Isolate and look for indicators
- v. Don't open, smell, or taste
- vi. Treat it as suspect

10. If parcel is Open and/or Threat is identified for a Bomb

Evacuate immediately ☐ Call Police / Fire Service / Bomb Squad.

703 Phase III – ARRIVAL OF RELIEF TRAIN/S

Phase III begins with the arrival of relief train/s. The senior most officer who reaches the site first becomes the OIC at site. The staff and Officers should work as per the directions of the OIC at site.

Site Organisation:

- Medical relief camp
- Security of luggage
- Preservation of clues
- Relief, rescue and restoration
- Co-ordination with Civil and Media
- Liaison with Control
- Communication network
- Lighting arrangement
- Information booth
- Catering arrangements
- Evacuation of passengers
- Payment of ex-gratia, etc.,

The Medical team reaching the site first shall comprise more doctors and staff including paramedical staff. The senior most doctor and OIC at site should have all details about dead and injured and hospitals where they are being treated.

704 Special Task Teams of different Departments

I.	Medical	Relief and transportation of the injured to hospitals.
II.	Commercial	Catering, payment of ex-gratia, information booth, liaison with Civil Administration and Media.
III.	RPF	Security of luggage, parcels and other Railway property.
IV.	Operating	Liaison with control and arranging logistics including Shunting operations.
V.	S&T	Establishment of communication network, free telephones and booth.
VI.	Mechanical	Rescue, relief and restoration operations including re-railment, measurements, photography/videography of clues and restoration activities and preservation of clues.
VII.	Electrical	Adequate lighting arrangements at the site of accident.
VIII.	Civil Engg.	Provision of tents, relief, rescue and restoration activities. Restoration of track, preserving the clues, readings photography/videography of clues and restoration activities.
IX.	Safety	Preservation of clues, statement of witnesses, photography/videography of clues and restoration activities.
X.	Personal	Passenger care

Armbands: Rescue team members must wear armbands and luminous jackets. Armbands for medical and paramedical staff shall bear a red cross.

Cold-cutting: Extreme care must be exercised while tackling damaged coaches. Cold cutting equipments should be used on coaches containing passengers so as to avoid burns to passengers.

705 Handling of dead / injured:

- Dead bodies should be handled with care and respect.

- Cover the dead bodies with white shrouds and they should also be numbered.
- Expeditious issue of death certificates.
- List of dead and injured shall be passed on to Divisional Control and DMCR at Zonal Headquarters from time to time.
- A photographer shall take coloured photographs of dead and injured.

706 Free food, drinking water, tea and snacks: Food and clean drinking water must be rushed to the accident site from the nearest source. Free food and beverages shall be arranged.

707 Action to be taken at Divisional-level:

- Opening and continuous manning of enquiry booths at originating, terminating and at en-route major stations.
- Furnishing updated position of dead, injured and evacuated passengers to 'all-concerned'.
- Helpline number shall be relayed through electronic and print media.
- Arrangements for issue of free Railway passes to relatives / friends / dependants of dead and injured.
- Make arrangement for transportation of evacuated passengers to be sent to destinations. Transport vehicles can be hired.
- In case of major disaster, DRM of the Division can requisition for the services of helicopter / aeroplane.
- Media shall be briefed properly and quickly.
- Zonal headquarters should be advised quickly.

708 Phase IV – HANDLING INJURED PASSENGERS:

- Relief trains clearing the injured and stranded passengers must get overriding priority.
- Road vehicles shall be arranged for transporting the injured and stranded to the nearby hospitals and station.
- List of injured, hospital-wise shall be conveyed to all concerned and displayed at prominent locations.
- Ex-gratia payment shall be arranged.

709 Phase V – RESTORATION OF TRAFFIC

Restoration of traffic should be planned and acted upon without affecting the relief operations. Restoration of passenger services gives a sense of normalcy, besides providing means of transport to relatives and friends/dependants of victims to visit them and attend to them.

1207 THREE MAIN METHODS TO BE ADOPTED TO EXTINGUISH FIRE

- (a) **STARVATION** - means removing combustible substances away from the Fire.
- (b) **SMOTHERING** - means prevention of Oxygen, access of fresh air in fire, using sand, foam etc to cover fire, which cuts Oxygen supply.
- (c) **COOLING** - means reducing the degree of the temperature with water

IF FIRE BREAKS OUT IMMEDIATELY SUMMON THE FIRE BRIGADE**1208 IN THE EVENT OF A VEHICLE ON A TRAIN BEING ON FIRE**

- Stop the train immediately.
- Do not panic.
- Evacuate the passengers from the burning coaches.
- Protect property, valuables & mails.
- Locate the fire extinguishing substances viz. water bucket with water/sand, fire extinguishers etc;
- Ascertain the type of fire viz. dry, oil gaseous, electric and use the right type of extinguishers;
- Use the fire extinguisher if any and put out the fire.
- Use water from the coaches and extinguish the fire.
- Isolate the burning vehicle from other vehicle by uncoupling.
- Train to be protected by Driver and Guard at both ends according to the provision of GR 6.03.
- Report it to the nearest station/control/fire station.
- Every effort shall be made to extinguish the fire and to save the wagon labels, seals and the contents of the vehicle.
- Throw Earth or sand, if available on the fire.
- In case of the fire is discovered when the train is near the tank or a watering station, the Guard and Driver shall use their discretion to proceed there, but no such attempt shall be made until the portion of the train in rear of burning vehicle has been detached.
- Inform all concerned to assist in extinguishing the fire;
- In case of fire from electricity, switch off the source;

1209 IN THE EVENT OF FIRE ON AN ELECTRIC ENGINE / EMU

1. The Guard and any other staff available shall render all possible assistance to the Loco Pilot in putting out the fire.

1210 IN THE EVENT OF A FIRE ON A DMU STOCK

- The Guard shall give all possible assistance to the Driver in putting out fire.

1211 WHEN A PERSON IS ON FIRE

- Approach him holding the nearest available wrap in front of you.
- Wrap it round him.
- Lay him flat and smother the flames.
- He may roll on the floor, smothering the flames.
- On no account should he rush in to the open air.
- Call for assistance.

1212 FIRE CAUSED BY PETROL OR ANY OTHER INFLAMMABLE LIQUIDS, ACIDS OR GASES

- Segregate the affected wagon, coach or area involved.

- On opening a wagon do not enter it immediately to thus, avoid fumes, which may be dangerous.
- Use foam type fire extinguishers and sand. Water or soda acid type fire extinguishers must not be used at all.
- Do not bring naked lights near the site of fire.
- Warn the people living in the surrounding one Km radius.
- Stay away from ends of tanks, as tanks normally burst from the ends.
- Cool tanks that are exposed to flames with water from the sides only after the fire is put out.
- Withdraw immediately in case of rising sound from venting safety device or any discoloration of tank due to fire.
- Inform the nearest Railway or Civil Fire Stations intimating that the fire has been caused by Petrol or any other inflammable liquids, acids or gases.

1213 In Case Of Fire/Accident Due To Explosives/Inflammables/Dangerous Goods Etc.,

- Extinguish by closing the valve or isolating LPG feed to fire by other suitable controls.
- Following steps may be taken if no undue risk is involved:
 - a. Move unheated Cylinders to a safe place after ensuring closure of valves.
 - b. Cool the Hot cylinders by spraying water from a safe position. The person directing the spray should take up a position where he would be protected from possible explosion.
- If the cylinder containing inflammable/toxic gas which develops leak during transport remove it to an isolated at an open place away from any source of ignition and advise the filler or consigner as required.
- Inform the Chief Controller of Explosives by fax/telephone.
- Inform Officer in charge of nearest police station.
- Inform Departmental Officers concerned.
- Pending the visit of the Chief Controller of Explosives/his representatives, the wreckage and debris shall be left undisturbed except to save lives.
- After getting information from the Chief Controller of Explosives that he does not wish any further investigation, the restoration work may be commenced.

If you smell gas or vapour, hold a wet cloth loosely over your nose and mouth and breathe through it in as normal a fashion as possible.

1214 DRY CHEMICAL POWDER TYPE FIRE EXISTINGUSIHER (DCP)

These types are suitable for tackling petroleum,. Gas, electrical fire and controlling fires in textile fibres. Sodium based chemical powder is used on a fire which undergo chemical reaction

1215 HOW TO USE

1. Carry to the place of fire and keep it up right.
2. Remove the safety clip.
3. Strike the knob located in the cap.
4. Sealing disk of the cartridge is broken and allows carbon dioxide gas to escape to the main shell and powder is pushed out.

5. Direct the steam of the powder at the base of the flame.
6. For effective result stand at about 1.5 to 2.5 m. near the seat of the fire.
7. Move forward with moving the nozzle rapidly from side to side in sweeping motion.

When using on outdoor fires operate from the up wind side of the wind for effective spray.

- **Precautions to be taken by the SM, LP/ALP and Guard regarding control of trains during storm and strong wind:**

- (i) When the warning message forecasting cyclone, storm or strong wind has been received from the Meteorological Department and/or there is a reasonable doubt that severe storm is going to break out endangering the safety of passenger carrying trains etc., the SM shall, in consultation with the Guard and the LP/ALP of the train regulate the train and also refuse to grant line clear to a train coming to his station until storm abates and he considers safe for the movement of trains.
- (ii) Should a train be caught on the run in a cyclone, storm or strong wind of an intensity which in the opinion of the LP/ALP, is likely to endanger the safety of the train he shall immediately control the speed of his train and bring it to a stop at the first convenient place taking care as far as possible to avoid stoppage of the train at places like sharp curves, high embankments and bridges (including approaches thereof). In controlling the speed and bringing the train to a halt, the LP shall stop his train carefully and without a jerk. He shall restart the train in consultation with the Guard only after the cyclone, storm and wind abates and it is considered safe to proceed.
- (iii) The Guard and LP/ALP of the train in co-operation with the railway staff travelling in the train shall try to see that doors and windows of the coaches are kept open by the passengers to allow free passage of the wind through the coaches.

1307 ACTION BY THE SM

☐ Intimation to staff:

On receipt of weather / cyclone warning advice from the SCOR, the SM should take the following action; SM on duty at station where ADENs / SSE/SE-P.Way / SSE/SE-Works / SSE/SE-OHE/PSI are headquartered should immediately arrange to handover the parties concerned a copy of the verbatim telegram received from the SCOR and obtain acknowledgement. If they are out of headquarters, the SM shall advise the controller on duty who will then be responsible for ensuring that the contents of the telegram are communicated verbatim to Engineering and TRD officer at the station.

Date & Time of receipt	Text of message in full	Name/Designation of officials to whom message was repeated	Signature of the SM	Actual weather condition

The office copy of the telegram on which acknowledgement has been taken should also be pasted in the register.

1603 STATION MANAGER/STATION MASTER DO'S

- Ensure that no other trains enter the effected section and take other necessary measures for protecting the site.
- Advice the control about the accident, and type of Medical and other assistance required. Also advise the local Civil Authorities.
- Call for assistance locally from nearby hospitals, dispensaries and medical practitioners.
- Call all the 'off'duty staff including Engineering and S&T staff available in nearby areas and allot them specific duties for relief and rescue.
- Inform to Railway Rescue Volunteers Registered at the Station giving preference to doctor and other medical staff. Also to make arrangement for their transportation to site of accident.
- Arrange to provide all sort of assistance to the affected passengers such as catering, drinking water and issue of complimentary passes, arranging free messages to relatives, etc.
- Arrange for protection of both belongings of the passengers and Railway Property.
- Open information counters and booths for giving information to the public regarding names of the injured, dead etc. and about regulation, diversion of trains etc.
- Utilise STD booths located at stations for giving relevant information.

DONT'S

- Permit any train to enter in the affected section except ART/ARMV.
- Destroy railway records and clues of possible cause of accident.
- Lose patience.
- Argue or misbehave with the victims and other passengers.
- Give any statement to media and press.
- Use shortcuts and unsafe methods in train operation.

BRIEF NOTES ON OPERATING MANNUAL

Write short notes on Over Dimensional Consignment [ODC](IR Operating Manual/WTT)

1. A consignment the dimensions of which exceeds the standard moving ones is called an over dimensional consignment [ODC] or Infringed Standard Moving Dimensions [ISMD].
2. An over dimensional consignment is one which, when loaded upon a truck with lashing and packing, infringes the standard moving dimension at any point on the entire route from the booking station to the destination.
3. ODCs are classified in different categories according to the extent to which the clearance in respect to length, width and height of any consignment.
4. The clearance referred to above is of two types - gross clearance and net clearance.
5. Gross clearance means the extent of clearance when the consignment is stationary and the net clearance means the extent of clearance as after allowing for horizontal lurching and vertical bouncing.
6. Classification of ODC:

Gross clearance:

- Class 'A' - With gross clearance of 22.8cm (9inches) and above
- Class 'B' - With gross clearance of 15.24 cm (6inches) and above but less than 22.86 cm (9 inches)
- Class 'C' - With gross clearance of less than 15.24 cm (6 inches) but not less than 10.16 cm (4 inches)

Class	Clearance	Sanction Authority	Time of Movement	Speed[Kmph]		Escort
				BG	MG	
A	Net clearance of 150mm (6") and above	COM	Day/Night	75	25	Not Necessary
B	Net clearance of NLT 75mm (3") & NMT 150mm (6")	COM/CE	Day/Night	40	25	PWI, TXR, TI/Spl.Gd, OHE official in OHE area
C	Net clearance of less Than 75 mm (3")	COM,CE CRS	Day only	25	15	SSEs(PWAY, C&W, S&T, OHE) TI

7. Whenever ODC consignment is offered for booking, SM shall verify the consignment.
8. Apply to Sr.DOM who shall obtain sanction from competent authority.
9. Application must show length width, height & weight of load accompanied by sketch.
10. While comminuting sanction for movement, route through which it has to be moved mentioned.
11. Restrictions according to class of ODC must be strictly observed.
12. It should be loaded carefully and avoid change of shifting enroute.
13. While examination by SE(C&W) he must see load is well secured, within CC of wagon, axle load restriction & under gear of wagon.
14. After loading Sr.SE(C&W) advise SM of various dimensions & issue 'fit to run' certificate for movement.
15. SS/SM inform Sr.DOM and office of COM
16. Operating Branch arrange to advise COM of other railways.
17. SS/SM shall furnish full particulars of wagon to control office.
18. CO given to Guard & LP to observe any other speed restriction and precaution to be observed.
19. Movement:-
 - i. Will be moved only after getting approval from competent authority.(COM)
 - ii. The Number of wagon entered in Red ink in VG and handover to guard.
 - iii. SS/SM advice SCOR, the train No.
 - iv. Dy Chief Controller informs adjacent control office and sees it is moved only through authorized route.
 - v. The load must be evenly placed when more than one wagon used.
20. For the movement of ODC a minimum clearance of 390 mm has been laid down in case of 25 KV AC traction. If the clearance is less than 390 mm up to 340 mm, speed shall not exceed 15 Kmph and OHE staff escort is required. If it is less than 340 mm ODC has to be moved with power of at a speed of 15 Kmph.
21. A circular shall be issued to all stations on the route to reach them sufficiently in advance. ODC shall be normally cleared by through goods trains.
22. 'C' class ODC shall proceed with a restricted speed of 5 Kmph while passing through a station, yards, curves, gradients and turnouts.
23. The Guard shall not allow the train to enter into electrified section (clearance is less than 340 mm) until permit to work is received by him. SM at starting point shall advise the Loco Pilot in writing to follow the instructions of authorised person (who will give permit to work) to stop the train as and when required.
24. The LP and the Guard shall follow all the restrictions as per the letter/caution order given to them.

Factors affecting Punctuality:**Operating department:****Adequate Terminal Facilities:**

- Adequate Berthing, shunting and stabling facilities are to be required.
- Platform availability at all stoppages to be ensured.
- Maintenance facilities like Pit line slot or Terminal attention with adequate staff are to be ensured.

Proper Time Tabling:

- Passenger Time Tabling should be realistic from a railway men's point of view.
- Judicious crossings and precedence are to be planned to avoid Bunching of trains due to inadequate platform facilities.
- Traffic allowance and Engg allowance are to be provided evenly with great care and analysis.
- A thorough analysis of Punctuality performance of Bad Runners is to be carefully examined to have necessary changes for improvement of such trains in Time Tabling.

Efficiency of Staff:

- ✚ Staff working in operations is to be prompt and alert in their duties.
- ✚ Correct operation of signals, points and closure of LC Gates are to be ensured.
- ✚ Efficiency of shunting operations resulting in avoiding delay to trains.
- ✚ Efficiency of Loco pilots and Guards are to be separately graded.
- ✚ Efficiency of Section controllers while planning of trains movement and timely instructions to be evaluated.

Factors affecting by other departments:

- Failure of locomotives or defect in locomotives
- Failure of coach or defects in the formation
- Signal and telecommunication failures
- Rail fractures and other infra-structural defects
- Speed restrictions should be within norms.
- Other miscellaneous reasons/ACP/ commercial activities like loading/unloading of parcels
- Detentions due to Security reasons/Public agitations.

Station Master can improve the punctuality in the following manner.

- Berthing the rake in time.
- Ensure that LP and Guard are reached the train in advance.
- Ensure that brake van equipment is loaded and sealed in the SLR.

- Ensure that Guard box and LP line box reached the SLR and Loco.
- Obtaining Line clear well in advance as per rules.
- Informing LC gates well in advance in case of interlocked gates, in case of non interlocked gate, exchange PNs before granting or obtaining line clear.
- Timely take off the signals
- Send the caution order to LP and Guard in advance.
- Alert the LP and Guard to start when signals are cleared and immediately make arrangements to rectify the complaints if given by the LP and Guard.
- Test the block instrument, signals and crossovers as per instructions.
- Efficient shunting operations wherever shunting is required.
- Clearing block section immediately after complete arrival of the train.
- Clear the incoming rake from platform after stipulated time.
- Exchange all right signals with LP and Guard of run through trains.
- Follow the rules and avoid accidents.
- When ever crossing is arranged, first receive less importance train on loop line and give through important/express train via main line.
- Advise SCOR about the unloading and availability of room for loading.
- Alert the Loco department for availability of Loco and crew.
- Alert the C&W staff for the release of rake.
- Alert the C&W staff for BPC/continuity test or endorsement in the BPC.
- Alert the commercial staff for reservation charts, loading and unloading.
- In case of signal/point failure, arrange authority after clamping and padlocking without delay.
- Alert the C&W staff for carriage watering and cleaning at intermediate stations.
- Alert the Electrical department staff for electrical complaints at intermediate stations.

OPERATING STATISTICS

‘Statistics’ is a science which deals with the collection, presentation, analysis and interpretation of quantitative information. It is an aggregate of facts. Bigger the organization like Indian Railways and more complex the operations, greater becomes the importance and indispensability of statistics. It is a managerial tool.

Advantages of proper use of statistics.

1. Enlarges individual experience
2. Complex data are simplified and presented.
3. Provides a technique of comparison and study.
4. Guides new formulation of policies
5. Indicates trends and tendencies
6. Provides relationships between factors.

Principal Heads of Railway Statistics.

- a) Economic and financial statistics.
- b) Transportation Statistics
- c) Commercial Statistics.
- d) Rolling stock Statistics.
- e) Administrative Statistics.

Statistical Units:

Statistical units are classified in to three categories.

- a) Primary Units
- b) Fundamental Units
- c) Derived Units

a) Primary Units: These are basic units for measuring time, distance, weight etc.,

Example: i) Time :- Hours, Days, Months, Years.

ii) Distance :- Miles, Kilometers

iii) Weight :- Kilogram, Quintal, Tonne

iv) Service :- Train, Vehicles, Wagons, Locos.

v) Money :- Rupees.

b) Fundamental Units: Multiplication of two Primary Units results in a Fundamental Units. It gives quantum of input or output.

Example: i) Wagon x Days = Wagon Days.

ii) Engine x Days = Engine Days.

iii) Tonne x Kms = Tonne Kms.

iv) Passenger x Kms = Passenger Kms.

c) Derived Units: A derived unit is a ratio between two primary or a primary and a fundamental or between two fundamental units. It gives rise to the indication regarding the efficiency of utilisation of resources.

Example:

i) Efficiency of Wagon Utilisation

- Wagon Kilometer Per Wagon Day

- Net Tonne Per Kilometer Wagon Day

- Average StartingWagon Load

- Percentage of Loaded Wagon Km. to the TotalWagon Km.

ii) Efficiency of Engine Utilisation:

- Engine Km. Per Engine Day (on line & in use)

- Net Tonne Km. per Engine Hour.

- Average Load Per Train.

- Train Km. Per Train Engine Hour.

iii) Operating Ratio: This indicates about the financial aspect of efficiency

$$\text{Operating Ratio} = \frac{\text{GrossWorking Expenses}}{\text{Gross Revenue Receipt}} \times 100$$

1. Operating ratio is a conventional and time tested index of operational viability of an organisaion.

2. The operating ratio of Indian Railways has consistently been improving from the beginning of this decade i.e 98.3% in the year 2000 - 2001 to 91.2% in 2004 - 2005 (RE).
3. The operating ratio of a particular railway system is a complex function of various factors like expenditure (on wages, fuel, maintenance cost etc.) and earning potential.
4. To achieve better operating ratio targets are fixed both for passenger traffic and freight traffic.
5. To achieve better operating ratio, the working expenses are to be reduced and earnings shall be increased.

Steps to reduce the working expenses.

1. Downsize the staff (closure of unproductive units, multi skilled labour, computerisation etc)
2. Achieving efficiency in fuel usage (reducing detention to trains, avoiding wastage of fuel efficiency in train running, detention to a Diesel train for 1 hour incurs nearly Rs. 3000 extra expenditure)
3. Privatisation
4. Leasing out the sidings to Private operators.
5. Introduction of 'Wagon Investment Scheme'
6. Phasing out Vacuum Braked rolling stock.
7. Reducing the incidents of claims.
8. Setting up 'Power Station' for Railways in coordination with NTPC.

Steps to Increase the Earnings in Railways

I. Freight:

1. Keep the targets for increased freight movement and achieve it.
2. Vigorous marketing strategy
3. Multi Modal Transport
4. Recapture the lost piecemeal traffic
5. Decentralisation of powers
6. Incentive offers to the loaders.

II. Coaching:

1. Good customer care
2. Run coaching trains with increased capacity
3. Run special trains like summer specials, pilgrimage specials, mela specials etc.
4. Palace on wheels, village on wheels improved tourism activities.
5. Introduce EMU, DMU rakes for medium distance travel.
6. MMTS, Metro Rail, etc., to cater to the needs of suburban dwellers.
7. Full computerisation
8. E-Ticketing and full-fledged operation of IRCTCL
9. Leasing out SLRs
10. Reducing the incidents of accident

SUNDRY EARNINGS

1. Leasing out the railway land.
2. Technology transfer through RITES, IRCON to other countries like Malaysia, Bangladesh, Mexico etc.,
3. Leasing out Telecom lines through Rail-tel corporation.

- 4.Consultancy and maintenance service for procurement/maintenance in 'own your wagon scheme'
- 5.Supply of quality food and water (Rail Neer) through IRCTCL.
- 6.Display of private advertisements in Railway area, coaches, etc.,

Line capacity and methods available to evaluate the Line capacity

Section Capacity or Line Capacity is defined as

"The number of trains which can be run on the section in 24 Hours"

CALCULATION OF LINE CAPACITY:

There are two ways to determine the Line Capacity.

- (1) Charting Method
- (2) Formula Method

Charting Method :

- i. This method is most reliable and practical way of assessing Line Capacity, adopted by most railways.
- ii. The train paths on time and Distance graph are plotted for 24 Hours time.
- iii. Passenger trains paths are first plotted on the Master Chart.
- iv. Then as many goods trains are inserted as possible so that it becomes impossible to accommodate even one more train.
- v. This method gives us maximum line capacity.
- vi. This method is primarily intended to get a realistic figure on the basis of the actual conditions that prevail on a particular section.
- vii. Now a days, computers are installed.
- viii. If data are properly fed, number of paths will be identified more efficiently.

Formula Method : This method offers practical Line Capacity.

Scott's Formula

To calculate Line Capacity,

$$C = \frac{1440}{(t + T)} \times E$$

Where 'C' = The Line Capacity

T = Running time of the slowest train over a critical Block section.

t = Block Operation time

E = Efficiency Factor.

- i. Critical block section can be lengthiest block section with unfavorable geographical and other conditions.
- ii. The formula will give total number of trains in Up and Down directions taken together on single line section.
- iii. On Double line sections this will give total number of trains separately for Up & Down directions because the running time on Up line and Down line will be different.

The Scott's formula is further supplemented by giving Values for 't' & 'E' factors.

t = Block Operation time = **5"**

E = Efficiency Factor = **$\frac{7}{10}$**

STEPS TO IMPROVE THE LINE CAPACITY OF A SECTION:

I. To Reduce the Running time[T] :

1. Reduction of length of the Block Section
2. Provision of Class 'C' station, IB signals on Double Line wherever required.
3. Easing the Gradient.
4. Convert TAS to MAS
5. Provision of simultaneous reception facility on Single Line.
6. Provision of Common loop lines on Double Line.
7. Provide bypass lines short of Junction Stations, Major yards eg:- SNF - AMQ - MLY
8. Provision of Two Distant Signals, Fan shaped Lay Outs.
9. Twin Single lines where unidirection traffic is more.
10. Induct High Speed Locomotives, wagons (Air Brake Wagons)
11. Adopting better system of trains working (Absolute Block System in to Automatic)
12. Provision of Panel/Route Relay Interlocking at Station.
13. Better communication system between LP / Guard / Station Master /Control.

II. To Reduce the Block Operation time[t] :

- a) Convert token Block Instrument in to tokenless block instrument.
- b) Provision Block Proven axle counter / Track Circuit.
- e) Phasing out the Block Instrument by provision of Automatic Block System.
- f) Provision of L V C D (last Vehicle Check Device) to know complete arrival of train.
- g) Automatic Route Relay Interlocking

Increasing efficiency factor 'E'

1. Time table improvements
2. Reducing disparity in intersectional running time
3. Improving efficiency of staff
4. Improved maintenance of loco, wagon, coaches, points and signal, telecommunication, electric energy distribution system etc.
5. Provision of adequate number of loop lines with simultaneous reception.
6. Effective train ordering
7. Run similar speed train in one bunch
8. Advance forecast to yard, Interchange points, adjoining divisions/Railways.
9. Constant monitoring
10. Making use of all traffic facilities'
11. Implementing 10 Hrs rule strictly for running staff.
12. Goods time tabling
13. Providing bankers/relief engine in time
14. Reducing cases of accidents.

“ Ordering of Goods Train’

Factors to be kept in mind before ordering a Goods Train

1. Goods trains does not have a fixed path or time table to run.
2. The crew for goods are also not charted
3. The advise given to LP, ALP and Guard by crew booking office to report for duty is called 'Train Ordering'
4. It is written and sent or sent through SMS on CUG mobile phones indicating

- i. Time train ordered to leave (OTL)
 - ii. Time prescribed to report on duty (OD)
5. With introduction of CUG phones now they are given through SMS, reducing wastage of man power and ordering done fast.
6. Dy CHC takes following into account before ordering
 - i) Loads
 - ii.) Locomotives
 - iii)crew
 - iv) path
7. Loads:- Dy CHC ensure optimum load available for despatch after intensive examination, and is marshalled properly.
8. Locomotives:-Depend on the availability. Should be able to work long distance.
9. Crew ; -Crew shall be fresh after availing rest with good enginemanship
10. Path:- Before ordering, identification of correct path is very essential. Otherwise pre departure detention occurs. The path should be such that similar speedier train runs as block. Ideal is following a express block.
11. Effect of poor ordering
 - i. Under utilization of engine crew and stock.
 - ii. Losing path
 - iii. Reduction in speed of goods train
 - iv. Less throughput
 - v. Interchange commitments not fulfilled
 - vi. Yard and sectional congestion.
 - vii. Stabling of loads enroute
 - viii. Late placement in siding.
12. Effective ordering can be done by
 - i. Get current status of train from YM/SM
 - ii. Order at regular interval keeping running time in mind
 - iii. Offer loco to yard at regular interval enabling TXR to attend one by one.
 - iv. Before ordering know the availability of locos by keeping in close touch with PCOR, SCOR of other divisions and zones.
 - v. Ordering may be postponed due to power and engineering block.
 - vi. Keep two call systems for running staff (one alert notice, other duty time)
 - vii. If pre departure detention becomes more, cancel booking of crew and issue fresh train orders.
 - viii. Watch flow of trains from adjoining divisions, section and order accordingly.
 - ix. Trains shall be ordered only when the formation is kept intensively examined and tested for brakepower.
 - x. Locos must be able to run the full journey and also must be able to haul the load.
 - xi. Monitor periodically run of goods train and advise running staff to maintain speed.
 - xii. Before ordering identification or the correct paths is essential.
 - xiii. The ideal path for the goods train is following express block.
 - xiv. Select and order trains in one block where similar speedier goods trains are running.
 - xv. Give advance forecast to yard.
 - xvi. Loads urgently required at the next terminal yard to be ordered in preference.

'Wagon turn round' . Measures to improve the wagon turn round performance.**Wagon Turn Round (WTR) is defined as**

1. Total time interval between successive loading (utilization) of wagons.
2. Measured in term of days.
3. For all wagons as system for a particular period known as average WTR.
4. The formula is given for calculation of WTR is

$$T = \frac{B}{L+R}$$

T= WTR in days
 B= effective wagon balance
 L= Average daily loading (in wagons)
 R= average daily loaded receipts (in wagons)

5. Effective wagons does not include sick, departmental and coaching wagons.
6. Wagon turn round is one of the most commonly used index to measure of operating efficiency
7. Steps to improve WTR
 - i. Reducing average lead of traffic(L);- reduce distance between loading points
 - ii. Increasing average speed of goods trains.
 - iii. Reducing average detention to wagon in yards
 - iv. Increasing distances between consecutive yards
 - v. Reducing time taken in terminal handling and clearance.
 - vi. By avoiding the empty haulage of wagons.
 - vii. Introduction of Unit trains, CC rakes etc.
 - viii. Mechanized Loading and Unloading.
 - ix. Improving efficiency of staff.
8. WTR depends on lead and number of times wagon are handled which is not controllable.
9. Calculation of wagon requirements and fixing targets of wagons holding is based on WTR figures.

'Throughput'

Definition:- The 'Throughput' of a section is the total quantum of traffic which can be transported over the section in a period of 24 hours.

1. The passenger throughput could be measured in terms of number of passengers or passenger kms which are carried over the section in 24 hours.
2. The goods throughput may be expressed in terms of
 - a. Number of wagons. Or
 - b. Gross tonne-kms or
 - c. Net tonne kms
 Carried over the section in 24 hours.
3. In Railways, generally throughput refers to 'goods throughput'
4. For day to day control operations, it is generally expressed in terms of number of wagons.
5. For commercial transactions it is expressed in terms of 'Net tonne kilometers'

Latest trends adopted to improve throughput

1. Throughput can be improved by two ways
 - a) Running more number of trains
 - b) Increasing load per trains.

2. Increasing 'Throughput' of given section by heavier trains is generally more economical rather than running more number of trains.
3. Improvement of ratio of NTKM to GTKM can be done by increasing the payload and reducing the tare weight of trains, running trains loaded in both direction and minimizing empty running of trains for maintenance and examination.
4. Provision of Heavier rails, long welded rails(LWR), Continuous welded rails (CWR), Elastic fastenings, PSC sleepers, mechanized maintenance, ultrasonic flaw detection (USFD) testing of rails, Self propelled ultra sonic testing cars (SPURT)
5. Provision of Track circuiting, Panel and Route Relay Interlocking, Solid State Interlocking, Block Proving Axle counters, automatic Block signalling, Auxiliary warning System (AWS), Optic fibre cables (OFC), Mobile radio communication.
6. Provision of composite Brake Blocks, Air Brake system, Electronic in Motion weigh bridges, Wheel flat detection device (WFDD).
7. Introduction of Modern heavier diesel GM locomotives, Modern Electronic ABB locos.
8. Containerization, Roll on roll off (RORO) scheme.
9. Increasing load per trains.
10. Increasing loop line capacity enhanced from standard CSR of 686M to 720M
11. Provision of High capacity wagons
12. Enhanced Axle load restrictions
13. Improvement of track
14. Running heavy and long haul trains.
15. Terminal improvement for loading and unloading
16. Distances between stations reduced
17. Removal of LC of Unmanned LC gates.

Causes of Accidents and Preventive measures (accident cases)

Consequential Train accidents are Collisions (A1-A4), Fire on trains (B1-B4), Level Crossing accidents (C1-C4) and Derailments (D1-D4)

Collisions constitute 7% of total accidents but account for 38% of total fatalities. Derailments constitute 75% of total accidents but account for only 14% of total fatalities. Fire accidents constitute 2% of total accidents and account for 2% of total fatalities. Level Crossing Accidents constitute 16% of total accidents but account for **46%** of total fatalities. Social awareness programmes

Overall consequential train accidents per million train kilometers will be reduced from 0.44 in 2002-03 to 0.17 in 2012-13.

Causes for Collisions

- Performing shunting in face of an approaching train on single line.
- Performing shunting in the block section after granting line clear on single and double line.
- Granting line clear without ensuring clearance of Block over Lap/block section.
- Improper stabling and securing of formation/vehicles.
- Not securing the Loco and formation when train stopped on a gradient due to accident or engine failure

- Not securing the second portion during divided train working.
- Disregard of signals by Loco Pilot.
- Poor brake power or LP did not test the brake power at first opportunity.
- Guard not protected the train when train held up at FSS for more than 15 minutes.
- Guard not shown stop hand signals to wards rear when train stopped in Automatic block signalling section or at Automatic stop signal.
- LP did not follow the speed restriction while proceeding on T/A 602 or T/609.
- Removing the tail lamp/tail board before completion of journey.
- Not setting the point against the occupied line, immediately on arrival of the train.
- Taking off signals without ensuring correct setting of facing points and trailing points
- Taking off signals without ensuring clearance of the line including signal overlap.
- During failure of signals, authority is issued without ensuring correct setting and locking of points.
- During failure of track circuit, authority is issued without ensuring clearance of line.
- During failure of Axle counter, re-set the axle counter without ensuring clearance of line.
- LP stopped the train without clearing fouling mark.
- Guard not ensured clearance of fouling mark and not shown stop hand signals to approaching train.
- SM closed the block section before complete arrival of the train.
- SM did not put back the signal when he received information about accident/obstruction.
- Not switching on flasher light on Loco and/or not giving frequent short whistle during accident.
- Not protected the adjacent line or no time to protect the adjacent line during accident.
- Tail lamp/Tail board not fixed on the last vehicle or not removed the Tail lamp/tail board from the vehicle other than Last vehicle.
- Loco Pilot not observed the speed restriction when they pass Automatic/IB signal at ON up to the next stop signal even though that signal is taken off.
- LP not observed the Gate rules while passing gate signals at ON.
- Issued PLCT without ensuring clearance of block section.
- Not cross checked the arrival/departure of last three preceding trains when LC is obtained through Control and Control too not ensured and cross checked.

- Not cross checked the PNs issued to last three preceding trains when LC is obtained through Block telephone /VHF set.
- Not obtained Line clear through freezed channel whenever VHF set is used for obtaining LC.
- During PLCT working train number and timings not spell out fully but spell out last two digits only.
- Un authorized interference of S&T staff.
- Sabotage/train wrecking by anti social elements.

Preventive measures

- Following the rules scrupulously.
- Providing Track circuits, Axle counters, BPAC, Auxiliary Warning system/Train Protection Warning system, Anti collision device, Mobile train radio communication, Automatic flasher units on Locos, Improved crash worthiness of coaches, Introduction of tight light couplers and anti climbing features.
- Improved training facilities enhancement of human skills

Causes of Derailments

- During failure of signals, authority is issued without ensuring correct setting, clamping and pad locking of points.
- During failure of signals, LP not observed the PHS at the foot of the signals.
- During Non interlocked working, signals permitted to take off without ensuring clearance of line and correcting setting clamping and pad locking of points.
- Un even loading or Excess loading.
- New cautions/emergency cautions not included in the caution order.
- Not exchanged all right signals or failed to observe dangerous condition in the train.
- Altering the points before completion of movement.
- Not secured and stabled the vehicles/formation
- Station Master altered the points before complete arrival of the train.
- Disregard of signals by Loco Pilot
- Excess speed – at speed res traction spot, more than Maximum permissible speed, while negotiating turnouts.
- Improper maintenance of track at Level crossings.
- Track defections – failure of formation, failure of sleepers, and failure of rails, cross level defects, Gauge variation, and defective maintenance.
- Vehicle defects – Flange defects, wheel defects, axle boxes and axle guards, etc, buffer and buffer defects, under frame defects, brake and brake gear defects.
- Un authorized interference of S&T staff.
- Sabotage/train wrecking by anti social elements

Preventive measures

- Following the rules scrupulously.
- Replacement of over aged tracks, bridges, S&T gears and rolling stock under SRSF and current arisings under DRF.
- Elimination of four-wheeler tank wagons, which are accident-prone. .
- Improved training facilities enhancement of human skills.
- Improvement of quality of rails
- USFD Testing of rails
- Reduction in thermit welds by mobile flash butt welding
- Way-Side Detection of overloaded rolling stock by in-motion weigh bridges
- Lubrication of Gauge Face and Friction Modifier on top of Rail
- Modern Bridge Inspection and Management System

Causes of Fire on trains

- Passenger carrying explosive (crackers etc.), inflammable articles.
- Hawkers carrying lighted stoves, sigris and naked flames.
- Hot axle in the coaches or wagons of running trains.
- Tank wagon valves not properly secured.
- Not observed the marshalling rules.
- Short circuit in the electrical connections of the coach.
- Booking and loading of explosives without observing rules.
- Throwing lighted cigarette butts, bidis, match sticks in the compartment.
- Using gas cylinders, stoves in the pantry car without protective measures as per rules.
- Sabotage/train wrecking by anti social elements

Preventive measures

- Use of fire retardant materials
- Provision of emergency exit
- Providing fire extinguishers in all coaches.
- Ensure proper function of Alarm chain apparatus.
- Constant vigilance by the staff and passengers.
- Staff should be trained in fire fighting.
- Regular drives/checks to be conducted.
- Booking and loading of explosives with strictly as per rules.

Causes of Manned LC gate accidents

- SM did not inform and exchange PNs with gateman before/obtaining Line Clear.
- SM did not inform and exchange PNs with gateman before taking off signals.

- Gateman not closed the Gate or opened the closed gate even after exchanged PN with Station Master.
- Gateman not fixed the Banner flag or Red light at non interlocked gates when gate is opened for road traffic.
- Gate man opened the gate without the permission of SM at Non interlocked gate normal position closed for road traffic.
- Gateman put back the gate signal and opened the gate while train is approaching the gate at interlocked gate.
- Disregard of the Gate signal by LP.
- LP not observed the Gate rules while passing gate signals at ON.

Preventive measures

- Following the rules scrupulously.
- Providing and maintenance of infrastructure as per rules.
- Construction RUB.s/ROBs when TVUs exceeding One lakh.
- Widening of road at selected high density locations.
- Retro-reflective indicators will be provided on Lifting barriers.
- Provision of phones & interlocking of level crossing gates
- Use of Train Actuated Warning Device (TAWD) and Anti-Collision Device (ACD)
- Interlocking of non interlocked gates where running time exceeds 10 minutes irrespective of TVUs.
- Providing time release at interlocked gate to open when ever signals are put back to ON.
- Frequent checks to be conducted and counsel the Gateman.

Causes of UN Manned LC gate accidents

- Negligence of Road user. Road user not followed the section 131 of Motor vehicle act 1988.
- LP not given whistle while passing un manned LC gate.
- Deficiency in the infrastructure like speed breakers, boards etc., provided at UN manned LC gate.

Preventive measures

- All unmanned level crossings shall be provided with modified design of Stop Boards in retro-reflective sheets
- Basic infrastructure on all unmanned level crossings will be ensured and it includes provision of adequate width, normal gradient, level surface for 5 m from centre of the nearest track, Whistle Boards in retro-reflective sheets, specified Road Warning Boards, road surface in good condition and speed breakers/rumble strips etc.
- Compulsory whistling by train drivers by linking loco whistle to the Vigilance Control Device (VCD).

- On sections where there are a number of unmanned level crossings, at close proximity, RUBs may be constructed at a convenient location and the remaining level crossings closed.
- Checking visibility levels at all unmanned level crossings, and taking corrective action for their improvement.
- Appropriate approach road gradients within railway boundary to be ensured.
- Intensive social awareness campaigns to counter misadventure in front of approaching trains.

Station Master can prevent the accident by

- ❖ SM shall ensure that signals are taken off for the train correctly.
- ❖ Once signal is taken off, SM shall not alter the point until whole of the train either come to a stop or run through the station.
- ❖ SM shall not give permission to take off the signals until facing points are correctly set and locked and trailing points are correctly set and line is clear of obstruction.
- ❖ When running line is blocked by a stabled load or immediately after the arrival of the train, the points in rear on double line and either side on single line should be set against the occupied line.
- ❖ After the operation of motor operated point, SM must check the 'N' and 'R' indications to see that points are in working order.
- ❖ Before taking off signals, SM shall ensure that condition for taking off that signal including overlap is fulfilled.
- ❖ Whenever train is received on loop line which is provided with sand hump/buffer stop, Points must be set to sand hump/buffer stop when block section is not free.
- ❖ During disconnection period, SM before authorizing any movement shall ensure that points are set and clamped for correct route.
- ❖ Whenever VTO is not visible SM shall advise the rear SM to issue caution order to the LP and arrange to sent fog signal men.
- ❖ During failure of signals, SM shall personally ensure correct setting and clamping and padlocking of points.
- ❖ SM shall arrange PHS before authorizing LP to pass defective signal at ON.
- ❖ SM shall inform Gateman before permitting to push back the train.
- ❖ When train passed the station without tail lamp/tail board, SM shall advise advance and rear station Master and shall not clear the block section (where BPAC is not provided) and trains on adjacent line may be sent on caution order or advice LP through IB telephone/Gate telephone/TPC.
- ❖ While exchanging all right signals, when SM notices any dangerous condition, he shall try to stop the train or inform LP through IB/Gate/TPC and inform advance SM to stop and examine the train.

- ❖ Whenever engine is detached from the formation within station limits, SM before detaching the engine shall ensure that required number of hand brakes is pinned down and necessary precautions are taken to secure the formation.
- ❖ SM shall not allow any private engine into Railway boundaries without special instructions.
- ❖ SM shall ensure that the working of station is carried out as per SWR.
- ❖ No un authorized person is permitted to operate signals, points and block instruments.
- ❖ SM shall see that the shunting is carried out without any danger and strictly as per SWR.
- ❖ When a report of accident/obstruction is received by SM, he shall see that all necessary precautions have been taken to protect the traffic.
- ❖ SM shall not perform shunting in face of an approaching train on single line unless SWR permits.
- ❖ SM shall not perform shunting in the block section once line clear is granted.
- ❖ Before granting line clear, SM shall ensure that condition for granting line clear is fulfilled.
- ❖ SM shall include emergency caution order in the caution order. He shall repeat the caution order to all concerned under exchange of PN.
- ❖ Before granting/obtaining line clear or before take off signals SM shall ensure that gate man is informed under exchange of PN/
- ❖ Before obtaining line clear through control phone SM shall repeat and cross check the particulars of the last three preceeding trains. In case of line clear through VHF set repeat and cross the PNs issued for last three preceeding trains.
- ❖ Before issuing PLCT, SM shall ensure that block section is clear of trains. Exchange messages in the T/A 1425 and T/B 1425.

Punctuality of passenger carrying trains

In the era of Globalization due to rapid industrial and scientific growth in various fields mankind is becoming increasingly aware of the value of time. Every one rations out one's time between pleasure, work, social obligations and other activities in a planned manner.

Executives, white collared and even blue collared population plan their activities well in advance for fulfilling various commitments and like to reach places in time. Therefore uses and concept of Punctuality is that Train should reach his destination in time i.e., as Advertised in Public Time Table.

On Indian railways the concept of Punctuality is that a train left right time at the originating station shall reach the destination to time, though the train may not reach enroute stations in time. However if the train reaches late by 15 minutes at the destination the train is considered as punctual under the concept of Not Loosing Time.

The success of Passenger train operation lies in Punctuality, Cleanliness of Stations& Trains, Time Tabling and efficiency of Staff.

ORGANISATION OF A DIVISIONAL CONTROL

1. Essential Coordination of the Railway operation is obtained by Control Organisation.
2. It is from where, planning activities of day to day working is done and the orders are issued to the stations and yards for execution.
3. It can be compared to the brain of human.
4. Normally the Divisional Control Office is located in the Divisional Head Quarters and connected to the station and yards through various communication systems.
5. Sr.DOM has the administrative control of the Divisional Control Office.
6. Chief controller is the head of the control organisation.
7. For easy and effective controlling, the entire division is divided into various sections and a well knit communication is provided for monitoring minute to minute activities at stations and yards.
8. The Chief controller is assisted by Dy.Chief controller in Freight and Passenger train operations. Dy. CHC looks after the Traffic Control.
9. A section is generally of the range of 150 to 200 km stretch and the trains are controlled in the section by the Section Controller.
10. Every activity of a station/yard is to be communicated to the control office for approval.

Objectives of Control Organisation:-

- I. Receive the Position,
- II. Plan,
- III. Pass Orders,
- IV. Ensure Execution,
- V. Monitor the Execution.

Functions of Control Office:

The following are the major functions of Control Office:

- (i) Receive the position of goods and Passenger Trains from the Station/Yard.
- (ii) Plan and issue orders with regard to running of trains.
- (iii) Train Ordering.
- (iv) Liaison with adjoining Divisions/Railways in day to day transactions.
- (v) Fulfilling Interchange commitments.
- (vi) Ensure prompt supply of empties to the loading points and clearance on time.
- (vii) Look after efficient usage of locomotives.
- (viii) Provide Engineering/Power Blocks whenever required.
- (ix) To deal the situations efficiently during unusual occurrences.

Duties of Section Controller:-

- a. A section controller should have a thorough knowledge of the section which he controls.
- b. (Topography, System of working, signals, traffic facilities, nature of traffic etc.,).
- c. Hence, he is a friend, philosopher and guide to the "field staff".
- d. He controls the trains over his section.
- e. Some of the important duties of section controller are listed below.

1. Collect the instructions from Dy.CHC, CHC particularly about any special movements.
2. Enquire any special task to be carried out.
3. Plot a rough path in advance at least for 2 hours advancedly.
4. Record all special events for every train in the remarks column of the chart.
5. Inform terminal stations and crew control cell about late running of trains.
6. Repeat the forecast of trains, the programmes of locomotives to the terminal points/yards/loading points.
7. Monitor every train constantly, any delay is caused to the train draw the attention of Driver/Guard through the Station Master.
8. Judiciously arrange crossing or precedences.
9. Be an opportunist to utilise the path whenever delay is caused to regular trains.
10. Offer line blocks to the Engineering Department or electrical Department as per the schedule without causing delays to the trains.
11. Ensure the running staff are not exceeding their duty hours.
12. Ensure Passenger carrying trains are running punctually.
13. As far as possible avoid stabling of trains.
14. If it is warranted, ensure stabling is not done on Main Line.
15. Be vigilant while transmitting the "Line Clear" to the station when Block Instrument, Block Telephone fails.
16. Give general call to all stations for transmitting **"time Signal"** at 16.00 Hrs.
17. Record signal failures and convey promptly to Test Room (S & T representative)
18. Record and transmit caution order messages to notice stations.
19. Repeat promptly the weather warning message and take acknowledgments from stations.
20. Maintain the prescribed registers correctly.
21. Record the accident messages and repeat the same to the **"all Concerned"**.
22. Regulate the traffic during accidents.
23. A special register has to be opened to record all events during accidents (like movement of ART/MRT) in a sequence.
24. Order Medical/Accident Relief Trains when message about accident is received.
25. Maintain the chart neat.

Duties of Dy. Chief Controller (Mail Line):

1. General Supervision of control office in the absence of CHC and supervision of over SCORs and PCORs.
2. Gather information from all section control boards about the flow of trains.
3. Receive specific orders from Sr.DOM/DOM for the movement of trains.
4. Understand the standing instructions.
5. Contact adjoining Divisions, adjoining Interchange points of other Railways, collect the expected incoming train particulars and repeat the outgoing train particulars for interchange.
6. Ensure trains are running with valid BPC. Whenever it is required, arrangements are to be made for trains examination at the TXR depots.
7. Monitor the movements of locomotives in and out of loco shed and connect them to the appropriate trains.
8. Keep a special watch over the movements of CC Rakes, Container Specials, Perishable and Live Stock Traffic.

9. Responsible to offer the wagons to the loading points at the appropriate time.
10. To receive the Wagon Demands from different loading points and register them in sequence.
11. Allot the wagon position throughout the division against the on hand demands.
12. In case of short fall arrange to get the wagon from adjoining division/zone.
13. Move on to the section control boards and ascertain the correct position of supply and loading at stations.
14. In case of cancellation of demand after physical supply or sluggish loading ascertain the cause and record.
15. Maintain the loading order register up to date. Mere verbal instructions for loading shall be deferred with.
17. Have a close watch on the movement of CC rakes. Move them timely for Train Examination.
18. Train Examination.
19. While loading orders are issued, Bans and restrictions are to be kept in mind.

Duties of Dy. CHC (Punctuality):-

1. Responsible to monitor the punctuality position of passenger/Mail/Express / suburban Trains.
2. To have a special watch on the movement of MR Trains and other important passenger carrying trains (Daily/Non Daily)
3. Ensure Rake Links are properly materialised. Ensure Rake Composition are not disturbed.
4. Monitor overlapping rakes and scratch rakes are properly used in case of exigencies.
5. Try to maintain the ineffective percentage of coaches are not exceeding the authorised limit.
6. Correct the "Master Chart" in case of any mistake or variation in train timings.
7. Metuculously plan movement of tourist traffic, marriage parties, student/delegates specials, VIP coaches, Officers Saloon etc.
8. Project the operational constraints in the time table meetings.
9. Dy. CHC (Punctuality) is to receive and record accidents/unusual occurrences. Convey them to all concerned.
10. Order MRT/ART and monitor their run.
11. Be responsible in planning and diverting / cancelling / regulating passenger carrying trains, whenever accidents take place.
12. Record all the information received from accident spot in a log book
13. Inform the developments, at the site of accident to the officers whenever required.

Duties of Power Controller (Diesel):

1. Verify the total availability of locomotives
2. Enquire about their deployment from the Dy. CHC.
3. Monitor the targeted engines are leaving the shed for traffic use.
4. Ensure the "due for schedule" locos are placed in the shed.
5. Enquiring other Railway locos due for POH are sent to parent railway.
6. Ensure extra precautions are taken for the movement of crippled engines, wheel floating engines etc.
7. Verify from crew booking cell that adequate Diesel drivers/Asst. Drivers are available for working the train.

8. Maintain the records of position of HSD and Lube Oil at various fueling points. Maintain 4 hourly staff position.
9. Arrange relief crew whenever required.
10. Balance the crew at Interchange points and at outstations.
11. Offer technical advice to the Drivers whenever they encounter a problem with the locomotive

Duties of Chief Traction Loco Controller:

1. To ensure sufficient Electric Locomotives are available for passenger and freight services.
2. To watch overdue locos are placed in loco sheds and they are released on time.
3. To offer suggestions to the drivers in case the locos are developing problems.
4. To watch Electric Loco crew are sufficiently available for working trains.
5. Periodically monitor the crew position and in case of short fall send staff from other crew control cell.
6. Ensure periodical rest is catered and 10 Hours rule for running staff is implemented properly.

Chief Traction Power Controller:

7. Responsible in ensuring prompt supply of energy in the Over Head Lines.
8. Arrange to isolate the supply of power in case of emergency.
9. Arrange to offer Power Block and issue "Permit to Work" as and when required.

Duties of C & W Controller:

1. Ensure train examination at the nominated depots for passenger/freight trains are carried out efficiently within the targeted time.
2. Ineffective wagons at maintenance depot and that they are attended and released. Arrange staff for Juggler Specials, Break Down Specials and for Salvage works.
3. Liason with Chief Controller for efficient trains running.
4. Collect the information about constraints from the C& W depots and bring to the notice of Sr. DME (C&W).

Duties of S & T Controller/Test Room:

- Note all Signal and Telecommunication failures.
- Ensure from the field staff that adequate precautions are taken during non-interlocked working and in case of emergencies.

Duties of Commercial Controller:

1. Coordinate with Chief Controller.
2. Ensure Passenger Carrying Trains are not delayed due to loading/unloading.
3. Arrange refund incase Trains are cancelled.
4. Advise diversion messages.
5. At the time of accident ensure refund are made to the passengers.
6. Issue instructions to commercial staff to comply with all commercial activities at the accident site.

Duties of Chief Controller:

1. Being head of the control organisation should exercise his expertise in Trains Controlling and Traffic Controlling.
2. Be responsible to Sr. DOM/DOM.
3. Have a good liaison with other Departments like Loco, C&W, S&T.
4. Ensure the orders issued for the previous day has been complied with.
5. Ascertain the on hand position, programme the work and issue orders.
6. Maintain the staff position and ensure nobody is put to over working.
7. Ensure the following in Day to Day working:
 - a) Interchange of Trains are materializing.
 - b) Punctuality of passenger carrying trains is well maintained.
 - c) Yards/Sections are not congesting.
 - d) Engines, wagons are well utilised.
 - e) The Traffic Block for Engineering Department or Electrical Department are offered as per plan.

FIRST AID

The immediate treatment given to the victim of an accident or sudden illness before the arrival of the doctor is called first aid.

Aim / Objectives:

- Save the life.
- Promote the recovery.
- Prevent the worsening of the condition.
- Arrange transport to shift him to hospital

Contents of the First Aid box:

1.	Set of splints	:	1
2.	Roller Bandage	:	10
3.	Triangular bandages	:	4
4.	Tourniquet/Rubber bandages	:	2
5.	Cotton Wool	:	4
6.	Safety Pins	:	10
7.	Adhesive Dressing	:	20
8.	Paracetamol Tab	:	20
9.	Diazepam Tab	:	10
10.	Antiseptic Cream	:	1
11.	Injury Card	:	1

Types of accident relief medical equipment:

With a view to provide prompt medical aid, the following types of accident relief medical equipments are provided in our railways.

1. Scale one medical equipments (MRV) are available at nominated stations mentioned in working time table.
2. POMKA (Portable Medical Kit for Accidents) available in all health units, poly clinics, sub-divisional, divisional and zonal hospitals.
3. Scale two medical equipments (ARME) are available at specified stations in boxes mentioned in working time table.
4. First Aid boxes are provided with station masters, passenger carrying train guards, workshops, marshalling yards, loco sheds and C&W depots.
5. Special First Aid boxes are provided in all long distance super fast, shatabdi, rajdhani expresses, Dy.SS (Commercial), AC coaches of some of the nominated trains.
6. First Aid boxes for gang men.
 - First aid boxes available with station masters and guards of passenger trains are to be inspected by ADMO once in a month.
 - The augmented first aid box is available with train superintendent, AC coach attendant, Dy. SS (Comma).

- This box contains around 49 items and this is to be utilized for giving medical aid to the passengers by a doctor only.
- Keys of the first aid boxes for locations such as stations, marshalling yards, workshops, loco sheds, carriage and wagon depots etc, which will be kept with the supervisors on duty.
- The first aid boxes with guards of train carrying passengers will have no keys.

Utilization of first aid box:

Splints:

These are used to immobilize and support the fractured limbs.

Roller Bandages:

It is used to retain dressings and splints in position

Triangular Bandage:

- To retain dressings and splints in position and to immobilize the fractures.
- To support an injured part or in the form of slings.
- To control bleeding.
- To reduce or prevent swelling.
- To assist in the lifting and carrying of casualties. Mainly used as bandages like head bandage, chest bandage, shoulder bandage, elbow bandage, hand bandage, hip bandage, foot bandage etc. It is also used as slings like arm sling, triangular sling and cuff and collar sling.

Tourniquet / Rubber Bandage:

It is used to stop bleeding and to stop spreading of poison when snake bites. It is used only for hands and legs. It is to be released at regular interval.

Cotton wool:

It is used to clean/pad the wounds. It is also to be utilized to absorb discharges when there is a wound.

Safety Pins:

It is used when Triangular bandage used for victim.

Adhesive Dressings:

It is used for minor & superficial wounds only.

Paracetamol Tab:

These are used to relieve minor pains.

Diazepam Tab:

It is a sleeping pill to be used in case of severe pains such as fractures etc.

Antiseptic Cream:

It is used to minimize or prevent infection to wounds.

Injury Card: It is for maintaining the account of the first aid box items.

Rules of First Aid:

The best advice to the First Aider is Make Haste slowly.

- a) Reach the accident spot quickly.
- b) Be calm, methodical and quick.
- c) Look for breathing, bleeding and shock.
- d) Start artificial breathing if casualty not breathing stop bleeding and then treat the shock .Avoid handling of the casualty unnecessarily.
- e) Reassure the casualty.
- f) Arrange for despatch to the Doctor or to the Hospital.
- g) Do not attempt too much. Give minimum assistance so that the condition does not become worse and life can be saved.

The three emergency situations where a casualty is especially at risk because of interference with vital needs are:

- a) Lack of breathing and / or heart beat.
- b) Severe bleeding
- c) A state shock.

Steps to be followed while rendering effective help to a person who met with an accident.

- **D-Danger**
 - **R-Response**
 - **A-Airway**
 - **B-Breathing**
 - **C-Circulation of Blood.**
1. Remove the casualty from the danger; shift him / her to a safe place.
 2. Find out whether the casualty responding or not. If responds he / she is conscious otherwise unconscious.
 3. If unconscious check ABC if any failure restore artificially immediately.
 - **AIRWAY-** Airway may get blocked due to
 - Tongue falling back
 - Foreign body in the airway

To check airway

- Lay the casualty on his back
- Open the mouth and see in side
- If tongue fallen back tilt the head slightly back. to bring the tongue to its normal position and open the mouth.
- If any foreign body visible in side the mouth it is to be removed by inserting two fingers in to the mouth carefully.

- After clearing the airway the casualty to be put in recovery position.
- Once air way clear breathing starts automatically.

Breathing

- Look for the person's chest to rise and fall.
- Listen for the sounds of inhaled or exhaled air.
- Feel for exhaled air by putting your finger near the casualty's nose
- If no breathing give **two inflations of artificial respiration.**

Circulation

- Feel for a pulse, by gently pressing two fingers (do not use the thumb) on the person's neck between the Adam's apple, or voice box, and the muscle on the side of the neck.
- If you are not feeling the pulse it indicates that heart not functioning
- Restore the heart through cardiac massage

ASPHYXIA (SUFFOCATION)

Definition:

When lungs are not getting sufficient fresh air, important organs of body mainly brain deprive of oxygen, it is a dangerous condition called asphyxia.

Causes:

- Drowning
- Breathing polluted air
- Pressing of wind pipe (Hanging, Throttling and Strangulation)
- Choking
- Pressure/weight on chest.
- Electric shock
- Some poisons.

Signs and Symptoms of Asphyxia/Suffocation:

- Low / No Breathing
- Blue colour of cheeks and lips with congestion of face.
- Swelling of veins at neck.
- Unconsciousness.

General Treatment for Asphyxia:

- Remove cause from casualty or casualty from cause.
- Ensure more fresh air (By opening doors and windows and removing the people surrounded); loosen the tight clothing at chest and neck regions.
- Start artificial Respiration without wasting even few seconds.
- Arrange medical aid.

Note:- (1). Normal Breathing (Respiration) Rate 15 – 18 times per minute.
 (2) Normal Heart Beat/pulse rate 72 times per minute.

Methods of Artificial Respiration:

- Mouth to Mouth Method of artificial respiration
- Mouth to Nose Method of artificial respiration

Mouth to Mouth Method of Artificial Respirations:

- Place the casualty on his back on a plain and hard surface.
- Sit by the side of the face and place the hand by the side of chin and tilt the head slightly back so that clear ventilation at throat.
- Cover the casualty's mouth with clean cloth and pinch the nostrils.
- Open your mouth and take fresh air and cover the lips of casualty with your lips and blow the air into the mouth of casualty @ 10-12 times per minute.
- While blowing ensure that nostrils are pinched and chest is rising. If chest is not raising it indicates some obstruction in air passage clear the air passage and restart mouth to mouth artificial respiration. This process to be continued till the normal breathing resumed or Doctor arrives which ever is earlier.

Mouth to Nose method of artificial Respiration:

This method will be adopted only when mouth can not be opened due to injury inside the mouth or jaw fracture or the person suffering with fits convulsions .In this method blow the air into the nose of the victim by closing the mouth of the victim with fingers.

WHEN HEART STOPS FUNCTIONING

If the Heart is not working you will notice the following:

- The face is blue or pale.
- Heart beat and pulse at the root of Neck (carotid pulse) are not felt.

Note:- (1). Even if the casualty is breathing but the breathing is not normal, it is wise to start artificial respiration.
 (2). Do not begin heart compression until you are sure that the heart has stopped beating.

External heart compression or External cardiac massage:

1. Place the casualty flat on his back on the ground and remove the cloths over the chest.
2. Sit on the right side of the casualty on your knees
3. Feel and mark the lower part of the sternum.

4. Place the heel of your left hand on the marked point make sure that the palm and fingers are not in contact with chest.
5. Place the heel of the right hand over the left hand.
6. Push the sternum towards the spine. It can be pressed upto 1 to 1.5 inches.
7. Adults should be given about 100 compressions per minute. For children from 2 to 10 years compressions with one hand heel will be enough, but compressions should be @ 100 times per minute. For infants below 2 years compressions with two fingers is good enough and applied at a rate of 100 times per minute.
8. Press firmly but carefully, carelessness may cause injury to ribs.

If the treatment is effective

- colour will become normal.
- Pupil will contract.
- Carotid pulse begins.

CPR (Cardio Pulmonary Resuscitation)

If heart and breathing both are failed give CPR - Cardio Pulmonary Resuscitation
Give 30 heart compressions of cardiac massage than two inflations of artificial respirations and repeat the process.

SHOCK

Definition:

Shock is severe depression to vital functions of organs like brain, heart, lungs etc. due to less blood supply to the brain.

Causes:

- **Wounds**
- **Fractures**
- **Burns & Scalds**
- **Snake bite**
- **Sunstroke**
- **Heart attack**
- **Dog bite**
- **Electrical shock etc.**

Sign and symptoms of Shock:

1. Giddiness (symptom)
2. Pale colour of face (Sign)
3. Coldness (symptom)
4. Cold clammy skin (skin touch to cold with seating) (sign)
5. Rapid and weak pulse (sign)
6. Nausea (vomiting sensation) (symptom)
7. Vomiting (sign)
8. Unconsciousness (stupor/coma) (sign)

General Treatment for Shock:

1. Reassure (Encourage) the casualty if he is conscious.
2. Keep the casualty in supine position (Face upward) and head lower than body by raising the foot side of cot and head must turn to one side. Head lower to supply more blood to brain and turn one side to avoid tongue fall back and block wind pipe.
3. Cover with blanket to warm. Do not use hot water bottles, do not massage and do not give alcoholic drinks.
4. If he is conscious give sips of water, tea / coffee on request but do not give if suspects any operation.
5. Give pain relievers and arrest bleeding if necessary.
6. Arrange medical aid.

WOUNDS AND HEMORRHAGES (BLEEDINGS)**Definition:**

Wound is caused due to breakage of skin / tissue.

Types of Wounds:

- **Contused Wounds**
- **Lacerated Wounds**
- **Punctured Wounds**
- **Incised Wounds.**

1. **Contused wounds** are caused by blunt instruments where there is no opening. Treatment put an ice piece over the wound.
2. **Lacerated wounds** are caused by irregular edges of instruments like glass pieces metal pieces, machine injuries, animal bites and occurrences where the edges of wound is irregular. Clean the wound with water and pick any floating foreign body. Cover the wound with a clean cloth or apply antiseptic cream.
3. **Incised wounds** are caused by sharp edged instruments like razor / knife where the edge of wound is in straight line. Loss of blood is more hence arrest the bleeding immediately.
4. **Punctured wounds** are caused by sharp edged instruments like needles, nails and most of gun-shot wounds where less opening and more deep. If any wound on the chest to be covered and packed with a pad and ensure proper blood supply to brain.

- The circulatory system consists – Heart, arteries, veins and capillaries.
- Heart beat rate 72 times per minute average.
- Pulse rate also 72 times per minute average.
- While noticing the pulse we have to observe rate, rhythm and strength .

Types of Bleedings (Hemorrhages):

- Artery Bleeding – Bright red in colour and flow in jets.
- Vein Bleedings – Dark red in colour and flow continuously.

- Capillary Bleedings – Red in colour and oozing from all parts of wound.

According to the place of wound bleeding are two types:

- External bleeding
- Internal bleeding

Danger of wounds:

- It allows precious blood to escape from body.
- It permits harmful bacteria/virus or other injurious agents to enter into body.

Methods to arrest Bleeding:

- Direct Pressure Method- Whenever a person suffering with external bleeding and wound is free from any foreign body direct pressure method to be used for arresting the bleeding. Clean the surroundings of the wound. Put a dressing/pad and press the wound. Bleeding gets stopped

Indirect Pressure Method-

It is applied by two ways

- By using Tourniquet bandage
- By pressing Pressure Points

For the amputated limbs, when a foreign body in the wound which can not be removed, very big wound and direct pressure method fails. Tourniquet bandage is used to stop bleeding for hands and legs only. For other parts pressure points to be pressed. Tourniquet bandage to be tied above the wound towards the heart side at single bone area. It is to be relaxed once in 15 minutes.

Important Pressure Points:

1. Carotid pressure point on the neck either side of voice box.
2. Sub-clavian pressure point on the inner end of collar bone.
3. Bronchial pressure point. on the inner side of upper arm.
4. Femoral pressure point on the thigh bone.

General Treatment (First Aid) to Wounds:

1. Place the victim in sitting/lying position and elevate the injured part if possible.
2. Expose the wound and clean the wound and surrounding area but do not disturb blood clot if already there.
3. Remove any foreign bodies which are floating.
4. Arrest bleeding by applying pressure directly on the wound by putting a pad.
5. If bleeding could not be controlled by direct pressure method or if you find any foreign body inside the wound or wound is too big apply indirect pressure method.
6. Apply antiseptic cream, dressing and bandage.
7. Immobilize the part where it is possible.
8. Give pain relievers and treat for shock.
9. Arrange medical Aid.

Nose bleeding Treatment (Hemorrhage):

1. Advice the victim to take breath through mouth.
2. Place the victim near a window or against current of air in sitting position with the head slightly bent forward.
3. Pinch the junction of the nose just below the hard part.
4. If available put ice piece over the nose or a wet cloth.
5. Warn him not to blow the nose.
6. Do not block the nostrils.
7. Arrange medical aid.

Ear bleeding Treatment:

1. Place the victim on his back.
2. Do not block the ear passages
3. If one ear bleeding turn the head to the same side from which blood is coming out. and see that the affected ear is down.
4. If both ears bleeding keep face upward and head little bit low for free drainage of blood and raise the legs.
5. Do not block the ear.
6. Arrange medical aid.

Internal Bleeding:**Symptoms of internal bleeding**

- Giddiness.
- Skin becomes pale, cold and clammy.
- Pulse gets rapid but very weak.
- Sweating, Thirsty, feels vomiting sensation.
- Become unconscious.

Treatment for internal bleeding:

1. If the person is unconscious, check air-way, breathing and circulation of blood. If any failure is noticed, restore them.
2. Lay him on his back and raise the legs by using pillow to enable the blood supply to the brain.
3. If he is conscious lay him on his back and raise the legs by using pillow to enable the blood supply to the brain.
4. Shift him to hospital as early as possible.

Head injury:

As a result of head injury, blood and brain fluid may flow out of the nose, ear or mouth.

Symptoms:

- Giddiness.
- Skin becomes pale, cold and clammy.
- Pulse gets rapid but very weak.
- Sweating, Thirsty, feels vomiting sensation.
- Become unconscious.

Treatment:

- Ask the person not to blow his nose.
- Do not pack ear or nose.
- Lay the person on the affected side.
- Ensure tongue should not fall back.
- If any ear bleeding noticed, do not block the ear passage.

BURNS AND SCALDS**Definition:**

Burn is an injury caused by

- Dry heat – such as fire / flame
- Friction – touching speedy moving objects
- Corrosive (burning nature) chemicals like acids / alkalis
- Touching an object which was charged with high tension electric current.

Scald is an injury caused by moist heat such as hot water, milk, oil, tar, steam etc.

Degrees of burns:

1st degree	-	Redness of skin, blister formation
2nd degree	-	Internal tissue damage
3rd degree	-	Complete charring of part.

General treatment for burns and scalds:

- If a person's cloth catches fire do not allow him to run. Pour plenty of water or gently place him on ground and roll him slowly to put off flames.
- Cool and clean the affected area with wet cloth / cotton or flood with water or dip the effected area into water if it is possible.
- Remove any constraint articles like bangles, rings, watches immediately. Otherwise they can not be removed later.
- Remove the burnt cloths by cutting which is not stick to the skin.
- Cover the area preferably with clean cloth but do not disturb blisters.
- Do not apply antiseptic cream for major burns
- If he is conscious give water with pinch of salt to make good of lost salt and water, weak tea with more sugar also may be given if he is not diabetic patient.
- For major burns do not apply antiseptic cream.

"If you dont like something, change it. If you can't change it, change your attitude. Don't complain"

FRACTURE, DISLOCATION, SPRAIN AND CRAMP

Definitions:

- Fracture is breakage, crack / bend of a bone.
- Dislocation is displacement of one or more bones from joint.
- Sprain is wrenching tearing of cartilage near a movable joint.
- Strain is over lapping of muscles at a particular place.
- Cramp is sudden painful involuntary contraction of voluntary muscles.

Causes of Fractures: Direct force, indirect force and muscular contraction.

Signs and symptoms for Identification of fracture:

- Pain
- Swelling
- Loss of power
- Deformity (change in shape or size).
- Tenderness (Sever pain by gentle touch)

Types of Fractures:

- Simple Fracture means the broken ends of the bone do not come out by opening the skin and thus remain inside only.
- Compound Fracture means the broken ends of the bone comes out by opening the skin and the fractured bone is in contact with outside air as a result of an injury.
- Complicated Fracture means the fractured bone damages an important internal organ like the brain, a major blood vessel, the spinal cord, lungs, liver, spleen etc.

General Treatment for Fractures:

- Immobilise and support the affected part/limb by means of splints, Bandages/Slings etc.
- It is important to immobilize the area both above and below the injured bone.
- Give pain relievers and treat for shock if necessary.
- Ice packs can be applied to reduce pain and swelling (Not to be placed directly over the wound).
- Arrange medical aid as early as possible.

Sprain and Strain Treatment:

- Place in suitable position and put firm bandage and in case of strain wet it with water frequently.
- Arrange medical aid.

POISONS

Definition:

Any substance (liquid, solid or gas) when enter into body in sufficient quantity which is harmful to the body and has power to injure health or destroy life is called poison.

Gaseous poisons:

These are entered in to the body through breathing.

Treatment:

Take the person to safe place and start artificial respiration if necessary. Before entering into room, make proper ventilation and first aider has to cover his face with wet cloth. Take long breath and hold it. Shift the victim to the hospital as early as possible.

Swallowed Poisons:

These are entered in to the body through mouth.

Treatment:

Act quickly and collect poison or container and send messenger for doctor.
Before doctor arrives,

- Check whether he is conscious or not. If unconscious, check air way, breathing and circulation. If there is no breathing, start artificial respiration and if there is no pulse start CPR.
- If conscious, dilute the poison by making him to drink more water, milk, tender coconut, white portion of the raw egg.
- If the poison is corrosive in nature, do not induce vomit.
- Neutralize the poison by giving antidotes. For acids – chalk powder mixed in water and for alkalis – lemon juice.
- If the poison is non corrosive such as pesticides, excess dose of sleeping pills, mosquito killers, rat killers etc. induce the person to vomit by tickling or by giving large quantity of concentrated salt water.

SNAKE / DOG / SCORPION BITE TREATMENT

Snake bite:

- Tie rubber (Constriction) bandage (if the bite took place on legs / hands) above the wound towards the heart side. This must be released at regular intervals.
- Wash the area immediately with flow of water.
- Reassure the victim because most of the persons are dying due to fear.
- Don't allow him to run or walk.
- Treat the wound.
- Treat for shock.
- Give artificial respiration if there are any signs of failure of breathing.

- Arrange medical aid or carry the person to the doctor.

Dog bite:

- Wash the bitten area with soap water and with antiseptic solution.
- Encourage bleeding and do not cover the wound.
- Collect information about dog and dog bite such as it is pet / stray dog and whether it is a provoking / non provoking bite.
- Arrange medical aid.

Scorpion bite:

- Wash the bitten area.
- Apply sodium bi-carbonate or potassium permanganate and sodium bi-carbonate mixture on the bitten area.
- Arrange medical aid.

Drowning:

- Remove the person from the water.
- Lay him on the ground on his stomach and turn the head to one side.
- Apply pressure on the back (waist portion) or raise the belly so that the water gone into lungs should come out.
- ***Once lungs got vacated, breathing will start. If it has not started, give artificial respiration to restart the breathing.***
- ***Arrange medical aid.***

UNCONSCIOUSNESS (INSENSIBILITY)

When sensory organs are not in working condition except in sleep, the condition is called unconsciousness. Unconsciousness is due to interruption of the brain action through some interference with the functions of the nervous system.

It is of two types.(1) Stupor (partial) 2) Coma (complete)

Causes:

- Ensure abundant supply of fresh air.
- If breathing stops or appears to be failing, start artificial respiration.
- If breathing is not noisy, keep face upward and head and shoulders to be raised slightly.
- If breathing is noisy keep in recovery position.
- Undo all tight clothing, especially around neck and chest.
- Apply the specific treatment for the cause.
- Wrap the victim in a blanket.
- Do not leave the casualty alone.
- Do not attempt to give food / fluids while in unconscious through mouth.
- Shift him to hospital.

EPILEPSY (FITS)**Signs and Symptoms:**

1. Suddenly loses consciousness.
2. Sometimes remain rigid with flush face.
3. Convulsions start with froth at mouth.

4. Pulse will be in bouncing condition.
5. Body becomes stiff.

Treatment:

- Do not stop convulsions by force.
- Try to remove hard articles away from the victim.
- Wipe away the froth from his mouth.
- Keep careful watch for a possible failure of breathing and heart.
- Wait till he comes to the normal condition.
- Protect the tongue by placing soft material between the teeth.
- Once he becomes normal, advice the casualty to see the doctor.
- Do not keep any metal in to the hands and do not pour water

"If money is your hope for independence you will never have it. The only real security that a man will have in this world is a reserve of knowledge, experience and ability"

**ZONAL RAILWAY TRAINING
INSTITUTE MOULA ALI**

**OBJECTIVE QUESTIONS OF G&SR,
ACCIDENT MANUAL, BLOCK
WORKING MANUAL**

CHAPTER NO – I & II

1. The General Rules for Open Lines of the Railways 1976 have been framed under Section _____ of the Railways Act 1989 by the Government of India.(Preface of G&SR)
2. General Rules can be amended by _____.(Preface of G&SR)
3. Approved special instructions are issued or approved by _____.(G.R.1.02(4))
4. _____ is the authorized officer of South Central railway. (S.R.1.02(5))
5. Subsidiary rules are framed by _____.(S.R.1.02(5))
6. Who is the Commissioner of Railway Safety for South Central Circle _____.(CRS office/SC)
7. Present Chief Operations Manager of SCR _____.(COM's office)
8. A fixed stop signal of a station controlling the entry of trains into next block section is called _____.(G.R.1.02(33))
9. _____ and its cognate expressions include a train, vehicle or obstacle on or fouling a line, or any condition which is dangerous to trains. (G.R.1.02(43))
10. A train, which has started under an A T P and has not completed its journey, is called _____.(G.R.1.02(48))
11. Special instructions are issued by _____.(G.R.1.02(50))
12. Station Limits are available between _____ signals at a Block Station. (G.R.1.02(52))
13. At Class 'D' station, station limits are available between _____.(S.R.1.02.52)
14. _____ means the person on duty who is for the time being responsible for the working of the traffic within station limits. (G.R.1.02(53))
15. On Double line class 'B' station Multiple Aspect Signalling, station section lies between _____ and _____.(G.R.1.02(54))
16. On single line 'B' class MAS station, Station section lies between _____ or _____ or _____.(G.R.1.02(54))
17. Station Section is available only at _____ station. (G.R.1.02(54))
18. _____ means the system adopted for the time being for the working of trains on any portion of a railway. (G.R.1.02(56))

19. Block stations are sub-classified as _____, _____, _____ & _____. (G.R/S.R.1.03(2))
20. At a 'A' class station line clear may not be given for a train unless the line is clear for at least _____ mts beyond the Home signal, or up to _____. (G.R.1.03(2))
21. The classification of a station shall be mentioned in the _____. (S.R.1.03(1))
22. Any Block Station which cannot be worked under Class 'A' Class 'B' or Class 'C' conditions is termed as _____. (S.R.1.03(2))
23. Whenever L Ps / AL Ps / SMs / Guards / Switchmen join this Zonal Railway, on transfer, they shall attend _____ before taking independent charge. (S.R.2.03.2)
24. No Railway Servant directly connected with the working of trains shall take or use any alcoholic drink, sedative, narcotic or stimulant drug or preparation within _____ hours before the commencement of his duty or take or use any such drink, drug or preparation when on duty. (G.R.2.09(2))
25. If train parting is observed by any Railway Servant, _____ signal should not be exhibited. (G.R.2.11.2(d))
26. If any railway servant notices that a train has parted, he shall try to attract the attention of the LP and Guard by _____ and put both his hands together above his head and separate them smartly. (S.R.2.11.1)
27. When there is a severe storm endangering the safety of passengers trains, SM shall not _____ or _____. (S.R.2.11.2.1)
28. Wind velocity can be measured by _____. (S.R.2.11.3)

CHAPTER NO. I I I

1. Signals used for controlling movement of trains as per G & SR are _____, _____, _____ and _____. (G.R.3.02)
2. Under special instructions wherever any signal is located on right side of the track, that signal post shall have an _____ showing the line to which the signal is referred. The normal aspect of Distant signal is _____. (G.R.3.07(4))
3. In colour light area Distant signal is identified by _____. (G.R.3.07(4))
4. The normal aspect of Distant signal is _____. (G.R.3.07(4))
5. Whenever two yellow lights are exhibited in Distant signal the Aspect is _____. (G.R.3.07(4))
6. Whenever one yellow light is exhibited in Distant signal the Aspect is _____. (G.R.3.07(4))

7. The indication of the Distant signal in Caution Aspect is _____.(G.R.3.07(4))
8. The indication of the Distant signal in Attention Aspect is _____.(G.R.3.07(4))
9. Distant signal tells about the aspect of _____ signal ahead.
(G.R.3.07(5))
10. Whenever Inner Distant is provided, Distant Signal is capable of displaying _____ & _____ aspects only. (G.R.3.07(6))
11. The normal aspect of Distant signal on double distant signal area is _____ . (G.R.3.07(6))
12. When colour light Distant signal is combined with Gate/LSS, the normal aspect of that signal is _____.(G.R.3.07(7))
13. Distant signal is provided at a distance of _____ meters in rear of the stop signal.(SEM 7.30.4)
14. Wherever double distant is provided, distant signal location is _____ meters from the stop signal. (S.R.3.07.2)
15. _____ is eliminated wherever two Distant signals are provided.
(S.R.3.07.2)
16. At stations provided with Advanced starter and starter, the _____ shall be taken off first and then the _____.(S.R.3.10.1)
17. _____ are provided at certain cabins which when reversed, lock the levers of all running Semi-Automatic signals and enable the signals to function as Automatic signals. (S.R.3.12.2)
18. When a colour light Distant is combined with LSS/Gate signal, _____ marker shall be dispensed with on the signal post.
(G.R.3.17,S.R.3.73.3)
19. Colour light calling ON signal is identified by _____.(G.R.3.13(1)b)
20. Calling On signal may be provided below any stop signal except _____.
(G.R.3.13(2))
21. Calling ON signal will show _____ light in “ON” position. (G.R.3.13(4))
22. Calling On signal shows _____ colour light in ‘OFF’ position.
(G.R.3.13(6))
23. The Aspect of the Calling On signal when taken ‘OFF’ is _____.(G.R.3.13(6))
24. Calling ON signal cannot be taken “OFF” during _____
(end) point failure. (SEM 7.19.5(c))
25. Calling ON signal is to be used only on two occasions, they are _____, _____.(G.R.3.69, G.R.5.09)
26. Condition for taking off calling on signal is that the train has been brought to a _____ at the stop signal.(G.R.3.45)

27. To take "OFF" calling ON signal, the train must be in the _____ Zone and if calling ON is taken "OFF". it will take _____ time . (SEM 7.19.5(c))
28. Shunt signals are of _____ types, and they are _____.
_____ and _____.(G.R.3.14(1))
29. Shunt signal may be provided below any stop signal except _____.
(G.R.3.14(3))
30. Shunt signal below stop signal will show _____ light in "ON" position. (G.R.3.14(6))
31. Position light shunt signal shows _____ colour lights in 'OFF' position.
(G.R.3.14(9))
32. The Aspect of the shunt signal when taken 'OFF' is _____.(G.R.3.14(9))
33. The Aspect of the shunt signal at 'ON' is _____.(G.R.3.14(9))
34. Shunt signal detects _____.(S.R.5.14.5))
35. _____ type of shunt signals shall be provided in colour light area. (SEM 7.42.2)
36. _____ is the authority to pass defective Independent shunt signal or shunt signal below stop signal at "ON". (S.R.3.14.1)
37. When Shunting Permitted Indicator is defective, _____ is the authority for the LP. (S.R.3.14.3.3)
38. Detailed working instructions about Shunting Permitted Indicator are available in _____. (S.R.3.14.3.4)
39. I. B signal is identified by _____.(G.R.3.17.1)
40. Gate signal in Automatic section is identified by _____.(G.R.3.17.1)
41. When a fixed signal is not in use, it shall be distinguished by _____. (G.R.3.18.1)
42. Route indicators are treated as _____.(S.R.3.19.1)
43. Route indicators are of _____ types and they are (a) _____, (b) _____
(c) _____. (SEM Part -I -7.4)
44. There are four types of Electric repeaters and they are
(a) _____ (b) _____ (c) _____
(d) _____.(S.R.3.23.1)
45. Whenever the miniature light repeater in the colour light signaling territory is found to be defective and aspect is not visible, the corresponding signal shall also be treated as _____. (S.R.3.23.2.4)
46. When a signal is newly erected or shifted, it shall be jointly inspected by _____, _____ & _____.(signal sighting committee(S.R.3.26.1))

47. When a signal is newly erected or shifted, caution order shall be given for a period of _____ days and notified in _____ of lobbies.
(S.R.3.26.1)
48. Signal sighting committee will go on footplate inspection once in _____.
(S.R.3.26.2)
49. The minimum equipment of signals at a class “B” station with M A S are _____,
_____.(G.R.3.27(a))
50. At a class “C” MAS station the minimum equipment of signals are _____,
_____.(G.R.3.27(b))
51. Shunting limit board/Advanced starter is provided at a single line station where shunting(obstruction) is permitted out side the outermost facing points in the direction of _____.(G.R.3.32(1))
52. At a Class ‘B’ station, Single line with MAS, the distance from Home signal to outermost facing points shall not be less than _____ meters.(G.R.8.01(2)b,G.R.3.40(3)b)
53. Block Section Limit Board is provided at _____ station with _____ signals where the first point is a trailing point or where there are _____.(G.R.3.32(2))
54. The distance from Home signal to B S L B shall not be less than _____ metres. (G.R.3.32(2))
55. Gate signal is identified by _____.(G.R.3.34.2)
56. Detailed working instructions about outlying siding are incorporated in _____.
(S.R.3.35.1)
57. Outlying siding points are indicated by _____ mark board.(S.R.3.35.2)
58. Home signal lever/switch will be normalized after the passage of _____. (G.R.3.36.(2)(b))
59. Taking ‘off’ the approach Stop signals can be delayed to ensure busy level crossing gates, if any, are closed only for _____ before the arrival of the train, to avoid complaints from road users. (S.R.3.36.1)
60. SM shall test the working of the reception signal _____ and record results of the tests in _____.(S.R.3.36.3.2)
61. The speed of a goods train while entering goods terminal yard is restricted to _____ kmph. (S.R.3.36.4)
62. A signal which is taken “OFF” for a train will be put to “ON” position only in emergency to _____. (S.R.3.36.5.1)
63. To put back starter/advanced starter for departing train LP of the train should be advised by a _____ and obtain acknowledgement.
(S.R.3.36.5.3.1)
64. Fixed signals except Automatic Signals shall always show their most _____ aspect in the normal position. (G.R.3.37)

65. Even though departure signals are taken off, LP shall stop at stations where stoppages are scheduled in the _____. (S.R.3.37.1)
66. On single line immediately after the arrival of a stopping train, the points at _____ should be immediately set against the _____. (G.R.3.38(2))
67. On double line immediately after the arrival of a train, the points in _____ should be immediately set against the _____. (G.R.3.38(2))
68. When all the line at a station are blocked by passenger carrying trains, and still line clear is granted for a train, the points shall be set for _____. (S.R.3.38.6)
69. After the operation of every motor operated point, the _____ and _____ indications must be checked by the SM to see that the points are in working condition. (S.R.3.38.7.1)
70. Signal over lap in M A S shall not be less than _____ metres, which shall be reckoned from _____ on single line (G.R. 3.40.(1)(b),(3)(b))
71. Signal over lap in M A S shall not be less than _____ metres, which shall be reckoned from _____ on Double line. (G.R. 3.40.(1)(a),(3)(b))
72. To receive a stopping train on loop line having sand Hump or buffer stop, the points must be set for _____ only when block section ahead is occupied. (S.R.3.40.2)
73. _____ signals are prohibited to be used for shunting purposes. (G.R.3.46)
74. Slip siding is intended to protect _____. (S.R.3.50.3.1)
75. Catch siding is intended to protect _____. (S.R.3.50.3.2)
76. When there is a falling gradient of _____ towards station the provision of catch siding is compulsory. (The Railways opening for public carriage of Passenger Rules 2000, Form XV, Sl no.46)
77. When there is a falling gradient of _____ towards block section the provision of slip siding is compulsory. (The Railways opening for public carriage of Passenger Rules 2000, Form XV, Sl no.46)
78. Catch and slip sidings shall not be used for _____ and _____ purposes. (S.R.3.50.3.1, 3.2)
79. Normal setting of points wherever catch/slip sidings are provided is for _____. (S.R.3.50.3.3)
80. Catch/Slip siding points key can be extracted from the block instrument, only when the block instrument is in _____ position. (BWM-Part B-3.4)

81. When Trap indicator is provided, it shall show _____ during day and _____ light during night when it is in open position. (S.R.3.50.2)
82. All points shall normally be set for the _____ line. (G.R.3.51(1))
83. Point indicator wherever available shall show _____ during day and _____ light during night when point is set for straight(Main) Line. (S.R.3.51.3.1)
84. Point Indicator, where ever available shall show _____ during day and _____ light during night when point is set for turnout(loop line). (S.R.3.51.3.1)
85. Whenever points/signals/Block Instrument is disconnected by SI/ESM, SM shall ensure that _____ is issued by SI/ESM. (S.R.3.51.6)
86. SM shall inform cabin man/CASM/SWM under exchange of _____ whenever the points/signals/block is disconnected. (S.R.3.51.6)
87. When the disconnected signal/point is reconnected, SI/ESM shall test jointly with _____. (S.R.3.51.6)
88. From the time of disconnection to reconnection, the trains shall be admitted by _____ method. (S.R.3.51.7.1)
89. Whenever signal Inspector is testing the signal, the remark shall be recorded in _____. (S.R.3.51.9.1)
90. By waving green flag by day and a white light by night up and down vertically as high and as low as possible indicate _____. (G.R.6.08(3))
91. Violently waving a white light horizontally across the body of a person indicates _____. (G.R.3.53)
92. A green flag/green light moved slowly up and down indicates _____. (G.R.3.56)
93. Detonators are also known as _____. (G.R.3.59)
94. VTP is painted _____ & _____ alternatively. (S.R.3.61.3)
95. FSP is painted _____ & _____ alternatively. (S.R.3.61.3)
96. VTP is located at _____ meters from either side of _____. (S.R.3.61.3)
97. _____ number of detonators are given to each fog signalman. (S.R.3.61.5)
98. FSP is located at _____ meters from _____ signal. (S.R.3.61.9)
99. Maximum speed of trains during dense fog in automatic block system is _____ when aspect of signal ahead is proceed (S.R.3.61.9)
100. Maximum speed of trains during dense fog in automatic block system is _____ when aspect of signal ahead is attention (S.R.3.61.9)

101. Maximum speed of trains during dense fog in automatic block system is _____ when aspect of signal ahead is caution (S.R.3.61.9)
102. Nominated fog signalmen are two from _____ department and two from _____ department. (S.R.3.61.12)
103. Fog signalman shall remain at FSP for a period of _____ hours on Main line section. (S.R.3.61.12)
104. For signalmen's assurance will be taken in _____ register by SM. (S.R.3.61.16)
105. The knowledge of staff to use detonators shall be tested by the testing officials once in _____.(S.R.3.64.4.2)
106. The normal life of detonators manufactured during 2010 and thereafter is _____ years. **(SR . 3.64.5.3)**
107. The life of the detonators can be extended further for a maximum of _____ more years. **(SR . 3.64.5.3)**
108. _____ shall prescribe the no. of detonators which shall be kept in stock at a station. (S.R.3.64.1.2)
109. TI/SM/PWI shall test detonators once in _____.(S.R.3.64.5.2)
110. Normal life of a detonator is _____.(S.R.3.64.5.3)
111. After testing the detonator, the life can be extended by maximum of _____ extensions. (S.R.3.64.5.3)
112. Testing of detonator shall be done by moving an empty wagon hauled by a locomotive at a speed of _____ kmph. (S.R.3.64.5.6)
113. The signals to be used to warn the incoming train of an obstruction shall be a _____ at night or a red flag during day.(G.R.3.65)
114. Whenever a signal/point/block instrument is defective, SM shall make an entry in _____.(S.R.3.68.2)
115. Whenever a signal which is detecting a point becomes defective, these points are treated as _____.(S.R.3.68.5)
116. A blank signal under complete power off situation is to be treated as _____ signal. (S.R.3.68.6)
117. Pre-warning about defective reception signal is not required when there is _____ signal provision or when _____ is provided.(G.R.3.69(1))
118. When home is defective and pre warning is given, the LP may pass such signal on receipt of _____ at the foot of the signal.(G.R.3.69(1))
119. When Loco Pilot is pre warned about the defective signal, Station Master shall ensure that the conditions for _____ that signal have been fulfilled. (G.R.3.69(3))
120. Pre-warning when given it will be given in the form No. _____ . (S.R.3.69.2.1)

121. When train is received on Calling ON, in Podanur Panel, Calling "ON" cancellation takes _____ seconds.(App. XI-5(v))
122. The axle counter shall be reset only after ensuring that the monitored portion is _____.(S.R.3.69.5.1)
123. Whenever axle counters are to be reset , it should be done by station master on duty along with one _____/_____staff. (S.R.3.69.5.3)
124. Authority to pass defective starter signal (if it is not LSS) is _____. (G.R.3.70(1))
125. When I B distant fails in "OFF" position _____ is the authority for trains before despatching. (G.R.3.71(2)/G.R.3.75)
126. On Double line when LSS is defective _____ is the authority to start a train. (G.R.3.70(2))
127. On Single line token less section when LSS is defective _____ authority shall be given to LP. (G.R.3.70(2))
128. When Loco Pilot passes starter at "ON" partly and stopped before Advanced Starter, subsequently line clear is taken, _____ will be given. (S.R.3.70.2)
129. When Gate signal is at ON, the LP shall wait _____by day/night and gateman not available, LP may pass the gate on the hand signals of _____after ensuring that gate is closed..(G.R.3.73(2))
130. When Gate signal is at ON, the LP shall wait _____by day/night and gateman exhibiting hand signals. LP may _____..(G.R.3.73(2)(b))
131. When LP passed the Gate signal at ON and gateman is not available, the LP of the first train shall_____.(S.R.3.73.2)
132. Gate-cum-distant signal will be located at a distance of _____ meters in rear of the gate. (S.R.3.73.3)
133. If a signal is showing white light in place of a colour light, it is treated as signal is showing_____.(G.R.3.74(1)(C))
134. When Loco Pilot finds a reception stop signal in semaphore area in OFF condition without light, he shall observe _____.(G.R.3.74(1)(e))
135. Whenever colour light signal is flickering / bobbing and does not pick up a steady aspect at least for _____ time, the signal shall be treated as defective.(S.R.3.74)
136. When I B S is defective _____ is the authority to be given to Loco Pilot . (S.R.3.75.2)
137. I. B signal will have _____ facility. (S.R.3.75.4)
138. When I B S is at "ON" the Loco Pilot shall stop and contact _____ immediately.(S.R.3.75.4)
139. When IBS is at "ON" and the telephone is out of order, Loco Pilot after waiting for _____ minutes shall proceed at a speed of _____ kmph when view is clear/not clear upto next stop signal. (S.R.3.75.4)

140. Whenever axle counter of I B S is functioning improperly, SM in rear with the co-operation of SM in advance shall operate _____ buttons to reset axle counter. (S.R.14.13.1)
141. Wherever I B S is provided, LSS is interlocked with _____ and I B S is interlocked with _____ (Appendix B of SWRs where IBS is provided)
142. When Loco Pilot pass I B S at “ON” _____ indication will appear to SM in rear.(S.R.14.14.1.1)
143. When Loco Pilot passes LSS in “OFF” position _____ indication will appear which will become normal by putting back _____.(S.R.14.14.1.2)
144. When Loco Pilot passes I B S in “OFF” position, _____ indication will appear after which block instrument is to be put in _____ position. (S.R.14.14.1.3)
145. Whenever I B S or I B distant signal bulb is fused OFF, _____ indication shall appear along with buzzer. (S.R.14.14.1.4)
146. Under no circumstances should a train be _____ over the trailed through points.. (S.R.3.77.2)
147. The Loco Pilot shall whistle intermittently when his engine explodes detonator and take every possible caution including _____ as necessary.(G.R.3.78.(2)(a))
148. After exploding the detonator, the Loco Pilot shall proceed cautiously upto a distance of _____ and can pick-up normal speed if there is no obstruction beyond that distance. (G.R.3.78(2)(vi))
149. When the Loco Pilot notices a signal warning of an obstruction, except detonator, he shall _____ immediately. (G.R.3.78.(4))
150. When the Loco Pilot notices a signal warning of an obstruction and no further details are noticed, after stopping _____ by day/night, he shall proceed _____ up to the next block station. (G.R.3.78.(5))
151. Signal warning board is located at a distance of _____ meters in rear of a stop signal. (S.R.3.78.1)
152. The LP shall clearly understand that if no signal indication is available from the Warning board he should control the speed as if the stop signal ahead is at _____.(S.R.3.78.1)
153. The Loco Pilot and guard will be given _____ no. of L R trips before they are booked for regular working including one trip between _____ & _____ hours. (S.R.3.78.2.1)
154. If Loco Pilot has not operated on a section for 3 to 6 months, he should be given _____ road learning trips. (S.R.3.78.2.2)
155. A _____ to record observations of Loco Pilot during his run must be maintained in all lobbies.(S.R.3.85)

CHAPTER – IV

1. The control office should advise the standard time by a general call to the stations at _____ daily. All SMs should correct the time and make an entry in the _____.(S.R.4.01)
2. Guard shall set his watch by the station clock or the clock at the authorized place of reporting for duty and communicate the time to the LP and make entry in the _____.(S.R.4.03)
3. ODC shall be allowed to be attached by a train for transport only with the prior sanction of _____.(App.VIII 9.2)
4. All Passenger carrying trains should run at _____ even under normal circumstances subject to observance of permanent / temporary speed restrictions in force. (S.R.4.08.1.1)
5. Loco Pilot shall not make up between any two stations more time than is allowed in _____.(G.R.4.08(2))
6. Maximum speed of a train shall be restricted to _____ kmph on Absolute block system and _____ kmph on Automatic block system during dense fog. (S.R.4.08.2)
7. Unless permitted under approved special instructions the maximum speed permitted on loop line is _____ kmph. (G.R.4.10(1))
8. The speed of trains over Non-Interlocked points, turnouts and crossover shall not exceed _____ KMPH normally(G.R.4.10(1))
9. The speed of a passenger/goods train on 1 in 8 ½ turnout (straight switch) is restricted to _____/_____ kmph. (S.R.4.10)
10. The speed of a passenger/goods train on 1 in 8 ½ turnout (curved switch of 52/60 km rails) on PSC sleepers is restricted to _____ kmph. (S.R.4.10)
11. Isolation is necessary where the trains are permitted to run through a station at a speed exceeding _____ kmph. (G.R.4.11(1))
12. Engine pushing is not permitted with out the prior permission of _____.(S.R.4.12.2.1)
13. When engine is pushing a train and Guard is travelling in brake van, which is leading, the speed shall not exceed _____ kmph, and Guard is not travelling in leading vehicle, the speed shall not exceed _____ kmph. (S.R.4.12.2.3)
14. During engine pushing, in the absence of PHS of Guard, LP shall _____. (S.R. 4.12.2.4)
15. When engine is pushing a train without guard the duties of guard is devolved on _____.(S.R.4.12.3)
16. When the train is working without BV, while pushing back the LP has to observe the _____ signals of guard and proceed with _____ speed. (S.R.4.12.4)
17. An engine exclusively deployed for shunting purpose shall put on _____ colour marker lights on both sides. (G.R.4.14(2))

18. When head light is defective after putting marker lights 'on' the train can go with a restricted speed of _____ kmph.(G.R.4.14(5))
19. In normal position side lights shall show _____ towards rear and _____ towards engine.(S.R.4.15.1)
20. At night, when passenger carrying train waiting at a station for precedence, Guard shall change the side light adjacent to the line on which the following train is to be admitted, to show _____ light towards rear _____ light towards engine. (S.R.4.15.1)
21. Side lights may be dispensed with for _____ and _____ trains. (S.R.4.15.4)
22. Last vehicle indicator during night shall be _____ red light.(G.R.4.16.1.(b))
23. When an assisting engine is attached in rear of a train, _____ shall be fixed behind the assisting engine. (S.R.4.16.2)
24. It will be the duty of the Guard to ensure that _____ is affixed only in the rear of the last vehicle. (S.R.4.16.3)
25. Light engines or coupled engines shall have _____ in rear. (S.R.4.16.4)
26. When a Station Master observes that a train has passed without tail lamp/tail board, should _____ bell signal to rear and _____ bell signal to station in advance. If BPAC is not provided, he shall also stop the trains proceeding on adjacent line and issue _____.(S.R.4.17.2.2)
27. In case of obstruction on track, Guard must exhibit the _____ hand signal lamp at night or _____ during day,(G.R.3.65)
28. Whenever alarm chain is pulled the Guard shall record the fact in the _____ and submit a special report to _____.(S.R.4.18.2)
29. Guard shall report to the Station Master of the next important station, any stoppage or other irregularities in train working record the details in _____ and send a special report to the _____. . (S.R.4.18.2)
30. The full form of OTL of BV equipment is _____.(S.R.4.19.4.1.1)
31. Dy.SS/TNC of the originating station shall record the intactness and availability of the BV equipment in the register and obtain acknowledgement of the _____ in the register apart from VG, (S.R.4.19.4.4.1)
32. Fire-Extinguishers: Replacement shall be done once in _____.(S.R.4.19.4.6.1)
33. The 2/4 wire telephone will be tested once in _____ by SE/JE-Tele. (S.R.4.19.4.6.2)
34. Contents of the EL Box shall be tested once in _____ by the SE / JE-TL. (S.R.4.19.4.6.3)
35. Guard shall obtain acknowledgement of Dy.SS or SE / JE-C&W in the _____ at destination station about the intactness of OTL and seal. (S.R.4.19.4.8.7)

36. In case of emergency the Assistant Loco Pilot can be authorized to drive the train at a restricted speed not exceeding _____ up to the nearest point where he can be relieved. (S.R.17.09.5.7)
37. When leading compartment of an electric engine is defective and the train is driven from trailing compartment by Assistant LP, the speed shall not exceed _____ kmph. (S.R.17.09.12.2)
38. When leading compartment of an electric loco is defective and the train is driven from trailing compartment by loco pilot the speed shall not exceed _____ kmph. (S.R.17.09.12.3)
39. In any case, there shall not be more than _____ officials/staff including engine crew at any time on the engine except in emergencies. (S.R.4.22)
40. The number of persons permitted to travel in the brake-van of goods trains, in addition to the Guard, should not exceed _____. (S.R.4.23.1)
41. In emergency a goods train with out brake van is ordered by _____ / _____. (S.R.4.23.2.1)
42. Maximum number of coaches in addition to the officers inspection coach attached in rear of SLR of Passenger or Mail&Express trains is _____. (S.R.4.24.1)
43. Maximum number of bogies or its equivalent attached by a goods train is _____ bogies. (S.R.4.24.2)
44. Only _____ damaged vehicle or damaged engine shall be attached behind the rear brake van of goods/mixed train. (S.R.4.24.4)
45. Attaching of damaged vehicle/engine may done during _____ and in clear weather. (S.R.4.24.4)
46. Damaged vehicle/engine when attached to a goods train shall be accompanied by _____. (S.R.4.24.4)
47. All irregularities in connection with the working of trains or accidents must be reported in the _____ by Guard. (S.R.4.25.2.1)
48. Entries of vehicles attached to a train at intermediate stations must be made by the _____ at those stations. (S.R.4.25.3.1)
49. Before starting, the guard will be responsible for checking the load on the train with the entries on the _____ of wagon numbers, booking and destination stations, type of wagons etc., (S.R.4.25.3.5)
50. In an emergency, a goods train without Guard can be ordered by _____. (S.R.4.25.4)
51. _____ shall be issued to the Loco Pilot by Station Master with necessary endorsement stating that the train is to run without Guard. (S.R.4.25.4.3)
52. Where IBS is provided, the SM shall not dispatch a train in rear of the train running without Guard reaches the _____. (S.R.4.25.4.4)
53. In Automatic block territory, no train shall be allowed to follow a train without brake van/guard until it arrives complete at the next _____. (S.R.4.25.4.9)

54. Running of goods train without _____ is strictly prohibited during tempestuous weather, total interruption of communications and during temporary single line working. (S.R.4.25.4.6)
55. Running of goods train without Guard should not be permitted if the last vehicle is not _____. (S.R.4.25.4.10.4 note 2)
56. Trucks loaded with girders, machinery, long timber etc. shall be inspected by Guard at stopping stations and if the fastenings have _____ or the loads _____ they shall be re-secured before the train is allowed to proceed or else the trucks detached. (S.R.4.28)
57. In case a hot axle box found running between stations, the train shall be brought to a _____ immediately and after attending LP should exercise his discretion with regard to the _____. (S.R.4.29.2)
58. When SM receives advice of Hot axle, that train shall preferably be admitted on _____ line. (S.R.4.29.3)
59. The Fit to proceed (Brake power certificate form No. _____ must be possessed by the Loco Pilot of the train till the train completes its _____. (S.R.4.31.4)
60. At the station after loading/un loading; or tipping; or while clearing stabled stock from a station; or in case of invalid BPC, the _____ check shall be conducted. (S.R.4.31.5)
61. Whenever train engine is changed, _____ test should be conducted and same shall be recorded by the LP and Guard in their _____. (S.R.4.31.5)
62. When a train is ordered without guard and GLP check is necessary _____ is completely responsible for conducting GLP check with assistance of _____ from the station. (SR . 4.31.5)
45. The time prescribed for Guard and Loco Pilot (GLP) check of train consisting of 60 units is _____ minutes (SR . 4.31.5)
64. When the train is ordered without guard, if GLP check is necessary and Loco Pilot is alone conducting GLP check, _____ minutes time is allowed for a rake consisting of 60 units. (Unit may be a 4 wheeler or 8 wheeler). (SR . 4.31.5)
65. Guard and Loco Pilot shall prepare a GLP check memo jointly on a plain sheet in _____. (S.R.4.31.5B)
66. At stations, where PA system is not provided, SM gives permission to Guard to stat the train by ringing _____ bear for Down train, _____ beats for Up trains and 4 beats for branch line. (S.R.4.35.2.1.2)
67. Guard shall report to Station Master of the next station, any stoppage or other irregularities in train working, record the details in the _____. (S.R.4.36)
68. While at a station, the Loco Pilot is to obey _____ orders. (GR.4.39(b))
69. The Loco Pilot and Assistant Loco Pilot shall _____ each signal; call out the _____ of the signal to each other. (S.R.4.40.1)
70. The validity of CC rake BPC is _____ days or _____ km which ever is earlier. (C&W JPO 5/2008-3.3)

71. The validity of Premium rake BPC is _____.(C&W JPO 5/2008-4.7)
72. The grace period given for Premium end to end BPC is _____.(C&W JPO 5/2008-4.7)
73. The validity of End to end BPC is _____.(C&W JPO 5/2008-5.1.II)
74. LP and ALP shall look back frequently during journey to see whether the train is following in a _____manner.(G.R.4.41)
75. The Loco pilot /ALP and Guards must look back at the Gang Staff and Level Crossing Gates to see whether any _____signal is exhibited by them.(S.R.4.41.2)
76. After clearance of the loop line cross-over points, when a train passes through loop lines at a station the guard and LP shall _____. **(SR 4.42.2.7)**
77. S M shall arrange points man to show all right signals for a run through train from _____ side. (S.R.4.42.5.1)
78. Loco Pilots/Motormen of DEMUs, DHMUs, EMUs and MEMUs are _____ from exchanging 'All right' signals. (S.R.4.42.7.4)
79. Cut off angle cock must be in _____ position except front side of loco and rear side of L V to ensure brake continuity. (App.VI-2.1)
80. A goods train having 56 wagons, the B P pressure in engine shall be _____ and in BV shall be _____.(App. VI - 2.2)
81. A goods train having 58 wagons, the B P pressure in loco shall be _____ and in B V _____.(App. VI -2.2)
82. Normally _____ minutes allowed to goods trains to start after engines have been attached. However, in case of formations tested by Vacuum Exhausters/Air-Compressors, the time taken for starting the train, after engine is attached, shall not exceed _____ minutes. (App. VI -3.4)
83. Empty / Load handle shall be kept in load position when the gross load is above _____ Tones. (App.VI-5.5)
84. "At the first opportunity, after starting, destroy a part of vacuum/air pressure in order to get an idea of the _____ of your train. (App. VI -6.1)
85. When train is stabled for more than _____ hours at station other than loading and unloading station, fresh B P C is required.(C&W JPO 5/2008)
86. Fresh B P C is required whenever more than _____ eight-wheeler vehicles are attached or detached, to/from a train. (App.VI – 13.1)
87. All passenger carrying trains of all description shall have _____operative vacuum cylinders with effective brake power at the starting station. (App. VI - 14.1)
88. F P pressure in loco shall be _____ and in BV _____.(App. VI -14.2)
89. D V isolating handle in vertical position indicates DV is in _____ position. (Maintenance manual for wagons -802)

90. D V isolating handle in horizontal position indicates D V is in _____ position. (Maintenance manual for wagons -802)
91. Reduction in B P pressure causes _____.
(Maintenance manual for wagons -802)
92. Creation of B P pressure causes _____.
(Maintenance manual for wagons -802)
93. All _____ trains shall have Twin Pipe working. (App. VI -14.2)
94. The effective brake power in case of Mail/Express at the originating station should be _____% and enroute can be not less than _____%(App. VI -16.2)
95. The effective brake power in case of passenger and CC rakes at the originating station should not be less than _____% and enroute shall be _____(App. VI -16.2)
96. When a train is held up at F S S for more than _____ minutes, the Loco Pilot shall depute Assistant Loco Pilot to go to Station. (G.R.4.44.(1))
97. When a train is held up at F S S for more than _____ minutes, the Guard shall _____ in rear. (G.R.4.44.(1))
98. If Guard notices any danger condition in the train, he shall try to attract the _____. If he failed to attract the attention, the Guard may apply _____ gradually to stop the train. (G.R.4.45.(1 to 4))
99. Whenever the engine is to be detached out side station limits when the gradient is not steeper than 1 in 600 hand brakes of _____ vehicles must be applied. (S.R.4.48.2)
100. Whenever the engine is to be detached out side station limits when the gradient is steeper than 1 in 600 hand brakes of _____ vehicles must be applied. (S.R.4.48.2)
101. With in station limits where gradient is 1 in 400, to detach the loco of goods train, BV and _____ number of wagons' hand brakes are to be put ON. (S.R.4.57.1)
102. When working a passenger train the Loco Pilot shall ensure that the passenger bogies do not over shoot the _____. (S.R.4.49.1)
103. Whenever a train is stopped on a gradient for any reason like accident, loco failure, OHE supply failures etc., it is essential and important to apply the _____ and _____ so as to hold the train safely on the gradient. (S.R.4.49.2)
104. When SM / Station Staff does not exchange ' all-right' signals, the Loco Pilot shall give _____ engine whistle code. (S.R.4.50.2)
105. The Whistle Board in case of approach to un manned level crossing gates is at a distance of _____ meters. On single line it should be reduced to _____ meters when view is clear. (S.R.4.50.3)
106. When engine whistle fails on run, after clearing block section, the loco shall be attended or it shall be _____. (S.R.4.50.4)
107. Engine Whistle code for Guard to Protect in rear is _____ (S.R.4.50.5)

108. Engine Whistle for Guard to come to Engine is _____.(S.R.4.50.6)
109. Passing Signal at 'ON' with proper Authority, the LP shall sound _____Whistle (S.R.4.50.7)
110. Engine whistle code 0 0 - indicates _____.
(S.R.4.50.11)
111. The Bell Code used in EMU/DMU trains for Automatic Signal or IBS passing in 'ON' when telephone is defective is _____.(S.R.4.51.3)
112. The Bell Code used in EMU/DMU for Zone of Speed restriction is over and to resume normal speed is _____.(S.R.4.51.6)
113. Whenever train stopped without clearing fouling mark, Guard shall inform the SM at once and _____to prevent any movement on the fouled line.(G.R.4.56)
114. At Stations, the LP of the train shall bring his engine to a stop as close as possible to the _____to ensure clearing of the fouling mark.
(S.R.4.58.2)
115. Material train shall be ordered to work with the permission of _____(S.R.4.62.1.1)
116. To despatch a material train for working in the block section and return back to the same station, _____authority is given to the LP.(S.R.15.06.4)
117. To despatch a material train for working in the block section and proceed to the next station, _____authority is given to the LP.(S.R.15.06.4)
118. Dividing of material train in the block section where the gradient is steeper than _____ is prohibited. (S.R.4.62.6.1)
119. The B P C of a material train is valid for _____ subject to examination of the train by T X R once in _____ days.(S.R.4.62.11.2)
120. The required brake power of material train shall be _____.
(S.R.4.62.11.2)
121. While stabling a material train at a station, the responsibility to secure it lies with the _____. (S.R.4.64.1.1)
122. The maximum speed of T T M is _____ kmph and over points and crossing is _____ kmph.(S.R.4.65.1.1)
123. TTM is permitted to work in the block section only during _____. (S.R.4.65.6.3.1)
124. When TTM's are following each other the distance to be kept between each is _____mts. (S.R.4.65.7)
125. When TTM's are following each other the speed of the second TTM is restricted to _____KMPH. (S.R.15.06.4.3)

CHAPTER – V

1. The SWR must be signed by the _____ and _____ (S.R.5.06.2)
2. SWR diagram must be signed by the _____, _____ and _____ (S.R.5.06.4)
3. SWR should be issued afresh once in _____ years or after issue of _____ amendment slips which ever is earlier. (S.R.5.06.8)
4. Fresh declaration shall be obtained from a member of staff resumes duty at a station after an absence of _____ consecutive days or more. (S.R.5.06.13)
5. In case of T/A to T/H 602, T/J 602, T/609, _____ to _____, T/A to T/D 912, T/A 1525 and T/1525, the prescribed printed forms shall only be used. (S.R.5.07)
6. To receive a train on to an obstructed line, the Loco Pilot shall be given _____ authority where there is no calling ON signal and signal post telephone. (S.R.5.09)
7. While receiving a train on obstructed line, SM shall arrange to post one competent Railway servant to show _____ hand signal from _____ meters before the obstruction. (G.R.5.09(4))
8. To receive a train on to non signalled line, the Loco Pilot shall be given _____ (Note below G.R.5.10)
9. To start a train from a station having common starter, the Loco Pilot shall be given _____ + _____ + _____ (G.R.5.11(1))
10. To despatch a train from non-signaled line, where tangible authority is not given as A T P, _____ authority should be given in addition to ATP. (S.R.5.12)
11. As per G & S R Shunting operations shall be controlled by _____ or _____ or _____. (G.R.5.13(1))
12. The speed during shunting operations shall not exceed _____. (G.R.5.13(3))
13. The shunting staff need not accompany during shunt movement of light engine/s on to a _____ except in case of doubt. (S.R.5.13.1)
14. Slip coaches shall not be kept on blocked line in the rear of a _____. (S.R.5.13.2)
15. While performing shunting on passenger carrying trains, the shunting engine or train engine with or without sectional coaches, before coming on to the formation should be stopped _____ metres before the formation. (S.R.5.13.3)
16. At station where separate shunting staff are not employed, shunting operations shall be personally supervised by _____. (S.R.5.14.1)
17. While backing a full train from one line to another via main line the shunting supervision is done by _____. (S.R.5.14.2)

18. Carriages containing passengers shall not be moved for shunting without the personal order of the _____ and _____.(S.R.5.14.4)
19. While performing shunting, the points which are not protected by signals must be locked by _____ or by _____ method. (S.R.5.14.5)
20. While shunting wagons containing explosives, the supervision shall be done by _____.(S.R.5.14.6)
21. The maximum speed while shunting of wagons containing explosives and P O L products shall be _____ kmph. (S.R.5.14.6(b))
22. Where shunting operations are supervised by Guard/SM, Loco Pilot shall be given Form No. _____(shunting instruction form) (S.R.5.14.9)
23. Shunting of roller bearing vehicle on a steep gradient shall be done only with locomotive attached towards the _____.(G.R.5.20(b))
24. For shunting purpose _____ gradient is considered as steep gradient for roller bearing wagons and _____ gradient for non roller bearing wagons. (G.R.5.20(b)Note)
25. Maximum Hand shunting speed is _____ kmph. (S.R.5.20.5.6)
26. Vehicles/load/train be stabled at station must be secured by using atleast _____ chains with padlocks and _____ wedges at _____ end.(SR 5.23)
27. If hand brakes of any of the first six wagons at each end cannot be applied, hand brakes of _____ wagons should be applied till six wagons in total are achieved. .(SR 5.23)
28. The hand brakes must be operated under the personal supervision of the Guard, and in the absence of Guard, by _____ on duty.(SR 5.23)
29. Remarks should be made in _____ and _____ in Red ink to the effect that 'Line No. _____' is blocked and all precautions for securing the load have been taken' as prescribed above.(SR 5.23)
30. After any load/train/loco is stabled, the SM must inform the _____ supported by _____ that all laid down precautions for stabling and securing the load/train/loco have been taken.(SR 5.23)
31. **If LP is required to leave the loco unmanned he can do so only after getting a _____ from SM. .(SR 5.23)**
32. Before leaving the Station/Yard, the Loco Pilot and Guard should jointly sign record in the _____ register to be maintained with SM. .(SR 5.23)

CHAPTER – VI

1. When Loco Pilot of the train experienced any abnormal condition in the track, stop his train at _____ of next block station and inform Station Master.(SR 6.07.1(a))
2. When Loco Pilot of the train experienced any abnormal condition in the track, in case of IBS and Automatic block territories, he must inform _____ and _____ to stop the movement of trains..(SR 6.07.1(a))
3. When 'lurch' is reported and subsequently a train is sent with engineering official, caution order is given to the LP to _____ short of the expected portion of the track .(SR 6.07.1(d))
4. When 'lurch' is reported and subsequently a train is sent in the absence of engineering official, caution order is given to the LP to stop dead and proceed at _____ kmph if considered safe otherwise _____ to station. SR 6.07 (e).
5. Rail fracture of less than 30mm, the speed of first train shall be _____ kmph, the speed of second and subsequent trains shall be _____ kmph. (SR 6.01.3.1).
6. The Station Master who received the message about the rail fracture through LP, he shall arrange to issue caution order of _____ kmph over the fractured rail.(SR 6.01.3.3)
7. Rail fracture of more than 30 mm or multiple fractures, certification by _____ is required to pass trains. (SR 6.01.3.4)
8. On Double line to dispatch the train against the established direction of traffic for any reason other than introduction of TSL working, the SM shall issue _____ to Loco Pilot. (SR 6.02.5)
9. TSL working shall be introduced between the nearest stations provided with - _____ on either side of the obstruction.(SR 6.02.1.4)
10. During T S L working the block instruments shall be kept and locked in _____ position. (SR 6.02.1.4)
11. _____ train shall not be dispatched on T/J.602. (SR 6.02.5)
12. When a train is dispatched on T/J602 (shall not be passenger carrying train), the speed shall not exceed _____ kmph. (T/J 602 (SR 6.02.5)
13. During Temporary Single Line working, Loco Pilot and Guard shall be given authority _____.(SR 6.02.1.8)
14. During T S L working, the speed of first train shall be _____ kmph.(SR 6.02.1.11)
15. During T S L working the speed of second and subsequent trains shall _____ (SR 6.02.1.11).
16. During TSL working when the train is proceeding on wrong line, the train shall be piloted out on a _____. (SR 6.02.1.14.1)
17. During T I C on double line _____ is the A T P authorizing the Loco Pilot to proceed with a restricted speed of _____ kmph.(SR 6.02.3.3)

18. When trains are dealt on T/C 602, the time interval between two trains shall be _____ minutes.(SR 6.02.3.5)
19. During T I C on Single Line /Double line and T S L working, except _____ signal, all other signals can be taken OFF (SR 6.02.3.6).
20. During TIC on double line, when a train is stopped in the block section on account of accident, Guard shall protect the train by placing one detonator at _____meters and two detonators 10 meters apart at _____meters from the train.(SR 6.02.3.9)
21. During TIC on Double line, if no one from the station turns up within _____minutes, Guard shall protect the train in rear and ALP may be sent to station. (SR 6.02.3.12)
22. When motor trolley / Tower car is sent for opening communication, it shall be accompanied by _____(SR 6.02.4.2.4).
23. Light engine/vehicle which is going to open communication shall proceed on _____ authority.(SR 6.02.4.3)
24. When enquiry is made for more than one train during TIC on S/L, _____ forms are given to the light engine/vehicle which is going to open communication. (SR 6.02.4.4.2)
25. Light engine/vehicle, which is going for opening of communication, shall proceed with a restricted speed of _____ kmph.(SR 6.02.4.6.1)
26. After opening communication _____ is A T P for the light engine/vehicle to come back.(SR 6.02.4.9)
27. UP / DN CLCT is prepared in Form No. _____/_____(SR 6.02.4.15)
28. When there is even flow of trains, enquiry and reply messages are sent through _____.(SR .6.02.4.16)
29. After opening the communication, the speed of first train waiting shall be _____.(SR 6.02.4.18)
30. If enquiry is made for more than one train and reply is also received, the second train can be allowed to go with a restricted speed of _____ kmph, after a clear interval of 30 minutes.(SR 6.02.4.18)
31. As soon as any one of the communication restored, the Station Master must send a message to the SM of other station in the prescribed form _____.(SR 6.02.4.22)
32. If it is required to dispatch a relief engine or relief train into obstructed block section, it can be dispatched by issuing _____.(SR. 6.02.6.1)
33. On Double line, protection in _____ is required(in addition to adjacent line and in rear) during TSL working or when assistance has been asked.(G.R 6.03.1(g))
34. If a passenger train/goods train does not turn up even after normal running time and _____/_____ minutes, S M shall arrange to send competent railway servant.(BWM Part I 5.5.2)

35. If for any reason, a train is brought to a stand for more than _____ minutes, the hand brakes of Locomotive and formation brakes shall be applied.(SR 6.04.2.1)
36. If that stoppage happened (more than 15 minutes) on a grade steeper than 1 in 150 for roller bearing stock, the hand brakes of 1/3 wagons of the train or next to engine hand brakes of _____ wagons and next to brake van hand brakes of _____ wagons whichever is more shall be applied in addition to the application of brake van hand brake. (SR 6.04.2.1)
37. When engine disabled, if the LP expects that putting the engine in working order will take more than _____ minutes, he will request the Guard to arrange for a relief engine. (SR 6.05.4)
38. If Loco Pilot enters block section with out authority and subsequently sends his Assistant Loco Pilot with a memo to SM in rear, that S M shall give _____.(SR 6.06.2)
39. If Loco Pilot enters block section with out authority and subsequently sends his Assistant Loco Pilot with a memo to SM in advance, that S M shall give _____.(SR 6.06.2)
40. When a train parts, If the Loco Pilot finds it necessary to proceed to the station ahead, he shall, on approaching the station give _____ whistle and act as per aspects of signals of station/gate.(SR 6.08.1.1).
41. When a train parts on its journey, the tonnage of the train shall be jointly checked by the _____ and the _____ and also by the _____(SR 6.08.1.3).
42. When train stopped due to inability of the engine to haul the load and If it is not possible to get the relief engine or push back the train, the crew can decide to _____ the train.(SR 6.09.1)
43. During divided train working, the Guard will prepare a written permission in the form _____and give to Loco Pilot to proceed to the next station.(SR 6.09.3.2)
44. During _____, the second portion of the train left in section shall be protected in the front by Guard.(SR 6.09.4)
45. During divided train working, on approaching the station, the LP shall stop at home signal eventhough it is off and give __ 0 __ 0 whistles. The SM and LP shall contact each other on _____/_____.and SM may then exhibit _____ hand signals to LP to enter into station. (SR 6.09.5)
46. The light engine which is coming on T/609 to pick up the second portion shall come with a restricted speed of _____ kmph.(SR 6.09.7)
47. When a goods Train runs without Guard has to be divided, the Loco Pilot shall bring first portion by preparing a _____.(SR 6.09.9.1)
48. When a train without guard is divided in the section, after dropping the first portion, light engine returning to pickup second portion shall proceed on _____ authority. (SR 6.09.9.4)
49. In case of fire accident in a passenger carrying train, the first objective to be achieved is to _____(GR 6.10.1)

50. If a fire is noticed in a running train, the LP shall at once stop the train. The vehicles behind the one on fire shall be _____ and the front portion of the train then moved forward to prevent the catching of fire. (S.R.6.10.1.1)
51. In the event of a fire on any part of the electrical equipment, the affected part is first to be completely _____ from the Distribution System. (S.R.6.10.11)
52. _____ shall not be used for extinguishing fires on electrical equipment. (S.R.6.10.11)

CHAPTER – VII, VIII & IX

1. The System of working used between Lingampally – Secunderabad Junction – Moula-ali of SC division is _____. (SR 7.01.1)
2. On SCR single line, Automatic Block System is used between _____ and _____. (SR 7.01.II)
3. On Absolute Block System, no train shall be allowed to leave a block station unless _____ has been received from advance Block station. (GR 8.01(1) (a))
4. The adequate distance (BOL) beyond FSS on multiple aspect signaling for granting line clear is _____. (GR 8.01(2)(b)).
5. At a class 'B' station on double line equipped with MACLS, to grant line, clear line must be clear up to _____ or _____. (GR 8.03 (1) (c) (ii))
6. At a class 'B' station on single line equipped with MACLS, to grant line, clear line must be clear up to _____ or _____ (GR 8.03(2)(c) (ii)).
7. At a class 'C' station line clear shall not be given unless- the whole of the last preceding train has passed complete at least 400 metres beyond the Home signal and is _____. (GR 8.04 (a))
8. One important essential required for automatic block system is that the track shall be provided with continuous _____ or _____ (GR 9.01(1) (a))
9. The line between the block stations, when required, be divided into series of _____ Sections. GR 9.01(1) (b)
10. The automatic signal shall not assume OFF position unless the line is clear not only upto the next Automatic signal but also for an adequate distance of not less than _____ metres on D/L (GR 9.01.(1) (c)(i))
11. Automatic stop signal is identified by _____ board GR 3.17(1)

12. Semi automatic stop signal is identified by _____ light when working as automatic signal. GR 3.17(1)
13. Normal aspect of Automatic signal is _____ (GR 3.37(2))
14. All Guards, Loco Pilots, Assistant Loco Pilots, Motor men who are required to work in automatic block system shall undergo one day intensive training and a certificate shall be renewed once in _____ months. (SR 9.01.4)
15. SMR/SS/TI shall renew the competency certificates (Automatic section) for the _____ and LI for _____. (SR 9.01.5)
16. When Loco Pilot passes an automatic signal at ON, he shall observe an SR of _____. (S.R 9.02.3)
17. The Guard shall show a _____ hand signals towards the rear when the train has been stopped at an Automatic stop signal. (GR 9.02(2))
18. After passing an automatic signal at ON, the Loco Pilot of the following train hauled by any locomotive shall ensure that a minimum distance of _____ metres is maintained between his train and preceding train. The distance may be reduced to _____ in case of EMU train. (SR 9.02.7.1)
19. On Automatic Block System, single line, the _____ shall be established only after line clear has been obtained. (GR 9.03(1)(b))
20. The minimum equipment of fixed signals in automatic block system on single line shall be _____ and _____ signals (GR 9.04)
21. When LSS fails on single line automatic block system, _____ shall be given to Loco Pilot and the first train shall go with a restricted speed of _____ kmph (SR 9.06.4 and 5)
22. When LSS fails on double line automatic block system, _____ shall be given to LP of the train to go with a restricted speed of _____ kmph (SR 3.12.3).
23. When a train is stopped in an automatic block signaling section on single line and train cannot proceed further, the Guard shall protect in rear duly placing one detonator at _____ meters and 3 detonators 10 meters apart at _____. (SR 9.10.3).
24. When a train is stopped in an automatic block signaling section on double line and train cannot proceed further, the LP/ALP shall protect adjacent line in front duly placing _____ and _____ shall ensure it. (SR 9.10.4)
25. During prolonged failure of signals but communications are available on DL Automatic Block System, the authority given to Loco Pilot _____. The Loco Pilot of first train shall go with a restricted speed of _____ kmph. (SR 9.12.1 5.1)
26. When signals and communication fail on DL Automatic Block System, the authority given to the Loco Pilot is _____ which authorizes the LP to go with a restricted speed of _____ kmph. (SR 9.12 2.2.4)

27. The time interval between two trains during signal and communication failure on DL Automatic Block System shall be _____minutes.(SR 9.12.2.2.5)
28. During TSL working Automatic Block System, the first train proceeding on right line when signal and communications are working shall proceed on _____authorities (SR 9.12.3.14.1.1)
29. During TSL working Automatic Block System when signals and communications are working, the second and subsequent trains proceeding on right line shall proceed on _____. (SR 9.12.3.14.1.2)
30. The first train running in the wrong direction during TSL working on Automatic block system shall proceed with a restricted speed of _____kmph.(SR 9.12.3.10)
31. The second and subsequent trains running in the wrong direction during TSL working on Automatic block system shall proceed with a speed of _____. (SR 9.12.3.10)
32. Authority to dispatch a light engine on single line Automatic Block system during prolonged failure of all signals when no communications are available is _____ (SR 9.12.5).
33. To dispatch a relief loco/train into the occupied block section _____is given as the ATP for the relief loco/ train. in the automatic block system. (SR 9.12.6)
34. Relief loco/train shall proceed with a restricted speed of _____kmph (SR 9.12.6.1.3)
35. On Automatic Block System when the train is unable to proceed further, obtain permission only from _____to push back. Such permission can be given only provided that _____.(SR 9.13.2)
36. A fixed signal which can be operated either as an Automatic stop signal or a manual stop signal, as required, is called _____.(GR 3.12(1) (b)
37. Gate stop signal in Automatic signaling territory is distinguished by the provision of _____and illuminated A marker when gate is closed condition. (SR 9.15.1)
38. When Gate signal in Automatic signaling territory is at 'ON' and 'A' marker is illuminated, LP shall follow the rules of passing _____signal at 'ON'.(SR 9.15.3)
39. When Gate signal in Automatic signaling territory is at 'ON' and 'A' marker is not illuminated, LP shall follow the rules of passing _____signal at 'ON' till he passes the gate and further follow the rules of passing _____signal at 'ON'. (SR 9.15.3)
40. LP shall pass a Semi Automatic signal with extinguished .A' marker at 'ON' on receipt of written authority _____+PHS. (SR 9.14.6)

CHAPTER NO. XIV, XV, XVI, XVII

1. No person shall operate the electrical block instruments unless he holds a _____ issued by Principal/ZRTI which shall be valid for a period of _____ years.(GR 14.04(1).
2. _____ is the normal authority to proceed on Single Line token less sections/Double line sections. (G.R.14.08)
3. At stations where cabin is not provided, the Guard of the train, after verifying the last vehicle is standing clear of the fouling mark, shall give an all right signal to Station Master by _____ by day/night.(SR 14.10.3.1)
4. The Station Master on duty shall send the "train out of block section" signal only seeing the _____.(SR 14.10.3.2)
5. Resetting button _____ is used to reset the axle counter whenever the IB Home is passed at 'on'. (SR 14.13.1)
6. Where IB signal is provided, resetting button _____ is used to give co-operation to the station in rear. (SR 14.13.1)
7. Where IB signal is provided, resetting button _____ is used to reset the analog axle counter due to failure or improper counting. (SR 14.13.1)
8. Where IB signal is provided, when reset is initiated, digital axle counter enters into preparatory reset mode. The first train shall be dealt on _____.(SR 14.13.2.3 (a)
9. When K1 indication appears, on complete arrival of the train at the station in advance, SM must inform arrival to SM of rear station under _____ and make all entries in the TSR/Station Diary in _____. (SR 14.14.1.1.4)
10. When a train passes IBS at 'on' and k1 indication appears and IB section is occupied by a train, SM shall advise _____ to stop the train. (SR 14.14.1.1.2.1)
11. On Double line or on Single Line when block instrument is defective _____ is given as A T P for the Loco Pilot.(SR 14.25)
12. _____ block means blocking of a portion of line for maintenance work by more than one department. (SR 15.06.1.3)
13. _____ block means a block, availed from either end of the block section between two block stations simultaneously. (SR 15.06.1.4)
14. Engineering works comes under category III (loading/unloading of ballast) requires _____. (SR 15.06.2.1.6.1)
15. Engineering branch will arrange with the Operating branch for the issue of a circular notice, which shall be valid for _____. (SR 15.06.2.1.6.3)
16. After issuing circular notice, the DOM will issue an all concerned message at least _____ days in advance. (SR 15.06.2.1.6.4)
17. The engineering official, who shall not be below the rank of a _____ will be authorized to obtain blocks on the field telephone.(SR 15.06.2.4.1)

18. When more than one TTM/Tower Car are programmed to go in the same block section and return to the same station the authority for the first TTM/Tower car is _____/_____ and authority for the subsequent TTM/Tower car is _____ (SR 15.06.4.1(c)).
19. When more than one TTM/Tower Car are programmed to go in the same block section and proceed to the next station the authority for the first TTM/Tower car is _____ and authority for the subsequent TTM/Tower car is _____/_____ (SR 15.06.4.1(d)).
20. _____ authority is given to the Tower Wagon to go into the section work and return to the same station during power block. (SR 15.06.4.2(a))
21. _____ authority is given to the Tower Wagon to go into the section work and proceed to the next station during power block. (SR 15.06.4.2(b))
22. The Speed of the Tower Wagon when following each other is restricted to _____ kmph during day/night and the distance to be kept is _____ meters. (SR 15.06.4.3)
23. When material train, TTM and Tower wagon are permitted in the same block section to work the distance to be kept between them is _____ meters and the speed for the following is restricted to _____ kmph during day/night (SR 15.06.4.4.1)
24. During integrated block/shadow block, if it is necessary to dispatch material train and TTM and tower wagon into the block section, they shall maintain the speed of _____ kmph when view is clear and during day time and _____ kmph when view is not clear and during night time. (SR 15.06.4.4.1/2).
25. Number of material trains permitted during the line block or integrated block or shadow block is _____. (SR 15.06.4.4.2)
26. During line/integrated/shadow block, if the units are allowed on to the wrong line, units shall be piloted out on _____ after ensuring correct setting, clamping and padlocking of the points. (SR 15.06.7)
27. During line block, to receive the units coming on right line, the first unit can be received on _____ and the following units will be admitted on _____ or written authority T/509. (SR 15.06.10.1)
28. During line/integrated/shadow block, if the units are coming on wrong line, units shall be received on _____ after ensuring correct setting, clamping and padlocking of the points. (SR 15.06.10.2)
29. On completion of work and after ensuring that the block section is free, the respective official in charges of various units will hand over to the SM a _____. (SR 15.06.11.1)
30. When the train is required to stop and the restriction is likely to last only for a day or less, a Banner flag shall be exhibited at a distance of _____ on BG. In addition, stop hand signal shall be shown at a distance of _____ m from the place of obstruction, at the Banner flag and at a distance of 45 m from the three detonators. (GR 15.09.1(a))
31. Stop indicator is located at _____ metres from the obstruction (work spot) (G.R 15.09.1 (b))

32. Speed indicator is located at _____ from the obstruction (work spot). (G.R 15.09.1. (d))
33. Engineering indicators are (a)._____ b)_____ (c)_____ (d) _____ (e) _____ (SR 15.09.1.1.2)
34. Caution indicator is located at _____ metres before the spot on BG and _____ metres on MG. (SR 15.09.1.2.1)
35. Loop line clearance Board with legend "T/Loop " to be provided at stations at a distance of _____ after the loop line cross over point. **(SR 15.09.1.2.5)**
36. After stopping at the stop indicator, Loco Pilot shall sign in the _____ book and proceed with _____ kmph.(SR 15.09.3)
37. When major work such as relaying and re girdering is in progress a speed restriction of _____ kmph shall be observed on the adjoining line of DL//MULTIPLE/ line section.(SR 15.09.6)
38. When water over tops the ballast level but is below rail level, the track should be walked over by _____ one at either end of the sleepers. (SR 15.17.3.1)
39. When water over tops the rail _____ shall certify by walking over and probing that the track is safe and allow the train to go at a speed not exceeding _____ kmph.(SR 15.17.3.2)
40. Minimum number of persons required to go along with a Push Trolley/Motor Trolley are _____. (SR 15.18.2)
41. Maximum number of men to be carried on a push trolley/motor trolley shall not exceed _____ on the BG. (SR 15.18.3.1.2)
42. In track circuited areas trolleys shall have _____ (SR 15.24.2.1).
43. In token less section _____ is given as ATP for the movement of motor trolley (SR 15.25.7.2.1.2.)
44. On single line, Station Master, after the arrival of motor trolley inform the Station Master of the rear station supported by a _____. (SR 15.25.7.2.3.1)
45. When motor trolley is following a full length train or engine or another motor trolley, _____ authority is given as A T P (SR 15.25.7.4.3)
46. When a motor trolley is following a train, it is treated as _____ of the train which it is following. (SR 15.25.7.4.5)
47. On arrival at the station, the official in charge of the motor trolley will deliver the authority to the SM with a _____ to the effect that the motor trolley has arrived. SM shall paste that authority in the _____. (SR 15.25.7.2.2)
48. On arrival of the (last) following motor trolley at the station, the official in charge will sign in the _____ in token of his motor trolley having arrived intact.(SR 15.25.7.4.8)

49. Trolley/Lorry notice is given in form No. _____ by P W I.(SR 15.27.1.1)
50. When Station Masters of both ends received Trolley/Lorry Notice, they shall stop all the trains entering into the section and issue _____. (SR 15.27.2.1)
51. During night a lorry or when lorry is loaded with rails, girders or heavy material shall always be worked under the rules for working of _____. (SR 15.27.2.1/2.2/2.3)
52. _____ is a device with two or more wheels which in balanced condition can be moved manually on one rail of track and can carry one rail/sleeper in suspended condition. (SR 15.27.8)
53. Rail dollies shall not be worked on sections having gradients steeper than _____ (SR 15.27.8.3(ii))
54. Not more than _____ rail dollies should be worked in a group in any one block section. (SR 15.27.8.3(iii))
55. In case, a Rail dolly is to carry rails longer than 3 rail panel , then it should work under _____.(SR 15.27.8.3.(v))
56. _____ is a self propelled one which can run on railway track as well as on road. It shall be treated and signaled as a _____. (SR 15.27.9.1.1)
57. The RRV shall run under the supervision (in charge) of _____.(SR 15.27.9.2.1)
58. When RRV is to be dispatched from a station provided with track circuit/panel, such movements in the block section would be dealt only on _____.(SR 15.27.9.5.3.1)
59. On tracking and offs tracking of RRV in mid-section shall be done from a _____ (SR 15.27.9.5.4.1).
60. Neutral section lies between two consecutive _____. (SR 17.02(3)).
61. "Danger Zone" means the zone lying within _____ metres radius around any live equipment. (SR 17.02.7.3, 19)
62. Engine crew of all trains shall report any defect/irregularity noticed in the OHE to _____ in electrified section. (SR 17.03.4.3.1)
63. When a train comes to a stop in an electrified section and the cause of stoppage is not immediately obvious, the LP and Guard shall immediately take action to _____. (SR 17.03.4.9.1)
64. The competency certificate issued by DEE (TRD) to SM for operating the isolators in emergency is valid for _____ years. (SR17.03.5.3.4)
65. Warning boards shall be fixed on the OHE masts in rear of neutral sections at a distance of _____ and _____ metres respectively. (SR 17.07.1)
66. The speed of the train while passing through Neutral section shall not be less than _____ kmph.(SR 17.07.1)

67. When the tower wagon is moved, attached to a train, it should be inside the _____.and the speed of the train should be restricted to the speed of the _____.(SR 17.08.8.3.4)
68. The maximum speed of tower car shall be _____ (SR 17.08.8.3.4).
69. When healthy section is temporarily isolated and re-energised, if no train entered faulty section, Station Master to issue caution order to the LP of the first train on healthy section to _____.(SR 17.09.16(b))
70. When healthy section is temporarily isolated and re-energised, if train entered faulty section, the speed of the first train shall be _____ kmph by day / night. (SR 17.09.16(c))
71. During power block _____ trains are only permitted to run.(SR 15.06.1.2)
72. The Guard shall not allow the train with the ODC to enter the section (electrified) until the _____ is received from the authorized person. (S.R.17.08.1.5.10.2)

APPENDIX I & II

1. The notice stations, where divisional caution order shall be issued are specified in the _____.(Appx I (2.3(i))
2. In the Caution order, the names of the stations concerned should be written in full _____ should not be used.(Appx I (5.2).
3. The caution order should have all the speed restrictions in force in _____ order.(Appx I (5.3)
4. The LP shall not start the train/the Guard shall not give signal to start from a notice station until they have received _____.(Appx I (6.3)
5. In case of change of train crew en route, the Loco Pilot/Guard taking over charge must take over all Caution Orders from the _____ who is being relieved. (Appx I (8)
6. In case a train is worked with an assisting engine / banking engine, the LP and ALP of such engines shall also be issued with the _____.(Appx I (9.1)
7. SM shall bring forward the caution orders in the caution order register every _____ at _____ hrs in geographical order.(Appx I (12.1)
8. Serial numbers shall be used for both imposition and cancellation of speed restrictions in the caution order message register throughout the year commencing from _____ to _____. (Appx I (12.3))
9. At notice stations instead of preserving train wise record copies, one _____ of caution order for each direction for each day be preserved.(Appx I (13.1))

10. Record copies of the caution orders shall be preserved for a period of _____ months. (Appx I (13.3))
11. Once in every _____ years, periodical census of traffic at all level crossings shall be carried out for _____ days. (Appx II (I))
12. Expand TVU _____ (Appx II (I)).
13. The opening and closing timings to be recorded in the _____ register by the gateman on duty. (Appx II. Annex III para2)
14. If lifting barriers/leaf gates get damaged or becomes out of order he shall close gate using _____ arrangement is available or by use of spare chain with disc and padlocks (Item No.4 *Appendix-II* (3) (vii))
15. If the interlocking arrangement is available for sliding booms, after closing the gate with sliding booms, _____ can be taken off (Item No.4 *Appendix-II* (3) (vii))
16. Before the use of sliding booms for closing the gate, Gateman shall make an entry in the _____ Register and exchange PN with station master. (Item No.4 *Appendix-II* (3) (vii))
17. After resuming working of normal booms, again entry to be made and ____ to be exchanged with SM to this effect (Item No.4 *Appendix-II* (3) (vii))
18. Interlocking is compulsory for LC gate , when TVUs are more than _____ (Appx II (II))
19. If any unmanned level crossing gets involved in more than _____ accidents in 3 years, it should be manned immediately. (Appx II (III))
20. Level crossing gates situated within outermost stop signals of a station are under the control of _____. (PWay Manual 909(1))
21. Level crossing gates situated out side the outermost stop signals of a station are under control of _____. (PWay Manual 909(2))
22. At non interlocked gates, the gateman, before opening the gate for road traffic shall fix a banner flag by day and red light by night at a location _____ distance from the gate. (Appx II-IV-1.4.2))
23. During passage of trains, Gateman during day time will stand and hold _____ in a furled condition and during night time, he shall hold _____ light facing the track. (App II-IV- 1.5(2)))
24. If a Gateman observes a train running in two or more portions, he will draw the attention of the Loco Pilot and Guard By _____ and also shall show parting hand signal. (App II-IV-1.5 (4) (iv))
25. At engineering level crossing interlocked gate, if the running time is less than 10 minutes, the Station Master will advise the gateman particulars of the train after/before _____. (App II Annex I (1 (iii)).
26. The interlocked level crossing gate should be treated as _____ when the signal protecting the LC gate becomes defective. (Appx II Annex I (3))

27. At engineering/traffic level crossing non interlocked gate, normal position closed to road traffic, the Station Master will advise the gateman particulars of the train before _____. (Appx II Annex III 2.(i))
28. If the communication with L C Gate fails, SM shall stop all trains and issue _____ (Appx II. Annex III 3 (1))
29. At engineering/traffic level crossing non interlocked gate, normal position open to road traffic, the Station Master (gate is connected to dispatching end) will advise the gateman particulars of the train before _____ (Appx II Annex IV 2 (a) (ii))
30. At engineering/traffic level crossing non interlocked gate, normal position open to road traffic, the Station Master (gate is connected to receiving end) will advise the gateman particulars of the train before _____ (Appx II Annex IV 2 (b) (iii))
31. Certificate of competency issued to Gateman will be valid for a period of _____ (Appx II Annex VII 2)
32. After exchanging PN with gate man, if the train has not left due to change in planning, SM shall inform gate man about the cancellation of train movement supported by _____. (Appx II Annex VII . 4)
33. The instructions for working of L C gates are incorporated in the Appendix _____ of SWR (Appx XV -list of Appendices)

APPENDIX III, IV, V, VI VII and VIII

1. During non interlocking working, the _____ line should not be used for reception of trains coming from opposite direction. (Appx III 2.4)
2. Engineering and S&T officials shall send a circular notice to the Sr.DOM/DOM at least _____ days before the work is due to commence. (Appx III 3.)
3. The staff should also sign in _____ register in token of having understood the train working instructions during NI working. (Appx III 4.1(ii)).
4. A common NI home signal without route indicator should be provided with _____ aspect for any indirect reception of trains. (Appx III 4.4)
5. _____ signal shall not be disconnected throughout the NI working except at the fag end. (Appx III 4.6)
6. All trains must be brought to a _____ the FSS and then allowed to enter (taking off signals) cautiously at speed not exceeding _____ kmph. (App III 5.2)
7. During non interlocking working, speed of the trains on main line shall not exceed _____ kmph. (Appx III 5.2).
8. During NI working, the LP shall not pass the outermost facing points even though signals are taken off unless he also receives _____ at points. (Appx III 5.3)
9. During NI working the ASM/Guard/SWM in charge of the goomties shall be responsible for correct _____ before exchanging PN to take off signals. (Appx III 5.4.3)

10. Patrolling _____ of _____ line _____ means _____ of the line in addition to the daily inspection carried out by key man of the gang.(Appx IV)
11. Patrolling of railway line is done on four occasions. They are
 (a) _____ (b) _____
 (c) _____ (d) _____ (Appx IV 2)
12. Security patrolling is of three types. They are
 (a) _____
 (b) _____
 (c) _____ (Appx IV 2.6.2)
13. The line to be patrolled during the monsoon is divided into different sections called _____.(Appx IV 4)
14. Patrol man must patrol their beats according to the Patrol charts issued by the _____.(Appx IV 4.2)
15. The beat of the Patrolman shall no case exceed ____km. Under no circumstances a patrolman should be rostered to walk more than _____km.(Appx IV 4.3.2/4.3.3)
16. Patrolman, when there is no danger, stand on the right hand side of the train, whistle and exhibit _____showing the light on it. (Appx IV 7.4)
17. The name of the night patrolman with arrival and departure time shall be recorded by SM in _____book and also in the _____and _____(Appx IV 10.2)
18. If the night patrolman does not turn up even after _____ minutes beyond the schedule arrival time, SM shall stop all the trains and issue caution order restricting the speed to _____ kmph.(Appx IV 10.4).
19. As per the Section _____of the Railway act 1989, no Railway shall be opened for the public carriage of passengers until the Central Government has, by order, sanctioned.(Appx V 2.1)
20. The Central Government shall before giving its sanction to the opening of a Railway obtain a report from the _____.(Appx V 2.2.1)
21. Application to the CRS for sanction shall be made by the _____ through the Heads of the Departments for track, bridge and signaling and interlocking works. (Appx V 3)
22. As and when there is change of traction and reversal of engine _____test must be conducted. (Appx VI 15)
23. Fog signal men shall be selected partly from _____staff and partly from _____gang men. (Appx VII .1)
24. Fog signal men shall not show any hand signals to the LP of _____train, but on single line sections, for a train _____ fog signal men shall show proceed hand signals. (Appx VII 6 (ii))
25. Station Detonator Register contains _____parts.(Appx VII 9 (a)).

26. Particulars of Fog Signalmen posted at the station from time to time shall be recorded in the Part of _____ Station Detonator Register.(Appx VII 9 (a))
27. Particulars of receipt and stock of detonating (fog) signals at the station, to be filled in whenever detonators are used or received are to be recorded in the Part of _____ Station Detonator Register.(Appx VII 9 (a))
28. The rules laid down in the I. R. C. A., _____ in regard to marshalling of explosives and other dangerous goods should be rigidly complied. (App VIII)
29. Maximum number of wagons containing explosives permitted by goods trains is _____ and _____ by mixed train.(Appx VIII 1.1)
30. Minimum _____ number of wagons is to be given as support wagons from Loco when wagons containing explosives are attached by Goods Train.(Appx VIII 1.3.1)
31. Minimum _____ number of wagons is required to be given as support wagons from B V / Passenger coach / other inflammables when explosives are carried by a train.(Appx VIII 1.3.2.)
32. The liquids, the vapours of which have flash point below 23 C classified under _____ Class. (Appx VIII 2)
33. Class 'A' POL product when carried, minimum number of _____ wagons are given as support wagon from loco and _____ from brake van or passenger carriage. (Appx VIII 2.3)
34. Class 'B' POL product when carried, minimum number of _____ wagons is given as support wagon from loco and BV.(Appx VIII 2.4)
35. For the purpose of marshalling, the empty oil tanks also shall be treated _____ tank wagons.(Appx VIII 2.6)
36. Tank wagons containing petroleum and other inflammable liquids and _____ oxygen/air not to be carried together.(Appx VIII 2.10)
37. A single four wheeler must not be marshaled between two _____ Appx VIII 8.5.1)
38. To attach a dead engine to a train, a certificate 'fit to run' issued by Section Engineer/ _____/Power controller is required.(Appx VIII 9.5.1 (i))
39. Dead engine shall be escorted by competent railway servant not lower than _____ (Appx VIII 9.5.1 (i)).
40. _____ number of dead engines is/are permitted to attach to passenger carrying train.(Appx VIII 9.5.2 (I))
41. No dead engine should be attached to any _____ train under any circumstances.(Appx VIII 9.5.2(v))
42. Officers inspection carriages are not to be permitted by (a) _____
(b) _____ (c) _____ (d) _____
_____ trains.(Appx VIII 10.1 and rake link)
43. More than one Inspection Carriage is not permitted by _____ trains.(Appx VIII 10.2)

44. _____ can be attached in excess of the permitted load.(Appx VIII 10.6)
45. A mail/express train shall have at least one _____ after loco and as rearmost vehicle. (Appx VIII 11.1.1)
46. In rear of rear S L R _____ coaches can be attached excluding one Inspection carriage for express trains.(SR. 4.24.1)
47. In case of short trains running with single SLR, the SLR, should be marshaled in the _____ of the formation. .(Appx-VIII11.2)
48. When center S L R is provided in short trains, a maximum of _____ coaches are permitted on either side of S L R. (SR. 4.24.1)

APPENDIX X and XI

1. Caution board before automatic danger level indicator shall be provided at _____ (Appx X 3).
2. When automatic danger level indicator is flashing red light the Loco Pilot shall stop the train _____ metres before the indicator.(Appx X 6)
3. When Loco Pilot stopped the train before flashing red light of Automatic Danger Level Indicator, train shall be piloted by _____ (Appx X 6).
4. At standard – I R interlocked station the maximum speed permitted for the train over main line points is _____ kmph.(Appx XI 1.3)
5. At standard – II R interlocked station the maximum speed permitted for the train over main line points is _____ kmph. Appx XI 1.3)
6. At standard – III R interlocked station the maximum speed permitted for the train over M L points is _____ kmph.(Appx XI 1.3)
7. At standard – IV R interlocked station the maximum speed permitted for the train over main line points is _____ kmph.(Appx XI 1.3)
8. At standard – III interlocked station the maximum speed permitted for the train over M L points is _____ kmph.(Appx XI 1.3)
9. Double Distant signal is compulsory in the Standard _____ and _____ interlocking.(Appx XI 1.3)
10. Double distant is required on sections where goods trains have a braking distance of more than _____ KM.(Appx XI 1.4.2)
11. In Siemen's panel to take "OFF" signal _____ and _____ buttons are to be pressed.(Appx XI II 4 iii (b3))
12. In Siemen's panel route button colour is _____. (Appx XI II . 4(b))

13. In Siemen's Panel colour of the point button is _____. (Appx XI II . 4(b))
14. In siemen's/Podanur Panel colour of the signal button/knob is _____. (Appx XI II.4(b))
15. EGGN button is for _____.(Appx XI II . 4(b))
16. EUUYN button is for _____.(Appx XI II . 4(b))
17. EUYN button is for _____.(Appx XI II . 4(b))
18. WN button is for _____.(Appx XI II . 4(b))
19. GN button is for _____ (Appx XI II . 4(b))
20. WWN button is for _____ (Appx XI II . 4(b))
21. In the Siemen's panel 'NCR' indication along with audible warning appears after a button is kept pressed for a prolonged period of _____ seconds or more.(Appx XI II 4. c (i))
22. In the Siemen's panel _____related buttons have to be pressed and released simultaneously to operate a given function. .(Appx XI II 4. c (ii)(a))
23. Emergency point button code is _____(Appx XI II 4(b)).
24. Points can be altered only when _____ indication is available.(Appx XI II 4.(ii)(b))
25. To put back the signal to "ON" position in Siemens's panel _____ and _____ buttons are to be pressed.(Appx XI II 4 V 2)
26. In Podanur Panel Point button has _____ positions and _____ indications.(Appx XI II 5 b(2))
27. Point switch in Podanur panel is _____ colour, where as point button in Siemen's panel is _____ colour.(Appx XI . II 5 b .2)
28. Route cancellation takes _____ seconds after initiation (Appx XI II 5 (v))
29. After the arrival of the train on calling "ON" in Podanur panel the time taken to cancel calling "ON" is _____ seconds.(Appx XI II 5 (v))
30. Whenever panel is not in use, it should be _____ (Appx XI II 6 (1)).
31. When power supply fails in Non-electrified area, one generator can be used for a maximum of _____ hours at a time.(Appx XI II 6 ii (f 4)
32. Even though route is locked, Gate can be opened by using _____which takes _____seconds to release Gate key.(Appx XI II 6.e (c))

33. Frequent power failures are to be reported to _____..(Appx XI II 6 ii (i))
34. "Rusty" rail caps are to be placed when any line is not used for more than _____ hrs.(Appx XI II 6 Dos for SMs)
35. At the Panel interlocked station, the Station Master shall test emergency cross over _____to ensure its proper functioning.(Appx XI II 6 Dos for SMs)
36. When points are flashing the SM shall ensure that there is no _____ between stock rail and switch rail.(Appx XI II 6 Dos for SMs).
37. OYN knob is for _____(Ref S W R)
38. For resetting the loop line axle counter, the SM shall take the co-operation of _____ (S.R.3.69.5.3)

APPENDIX XII, XIII, XIV and XV

1. In case of train shunting, written instructions will be given in form No. _____(Appx XII).
2. On double line section, shunting within the station section can be _____ when line clear is granted for a train.(App XII 7.1)
3. On Double line, to perform shunting beyond LSS, SM shall do _____ and give _____written authority.(Appx XII 8)
4. On double line, when shunting is permitted beyond LSS in SWR in rear of a travelling away train, the authority is _____.(Appx XII 8)
5. On single line tokenless sections, to perform shunting beyond LSS and up to FSS, the authority is _____.(Appx XII 9.2)
6. On double line, to perform shunting beyond Outer most facing points/BSLB, the authority is _____.(Appx XII 10)
7. To shunt beyond the FSS on single line sections, the movement should be treated like a _____ movement and LP shall be given _____ + a memo to push back.(Appx XII 11).
8. S & T works which don't require the permission of SM for maintenance are grouped as _____ (Appx XIII-4).
9. S & T works for maintenance which require the permission in writing by SM are grouped as _____ (Appx XIII-4).
10. S & T works for maintenance which definitely require Disconnection/Reconnection are grouped as _____(Appx XIII-4)

11. Disconnection for duration upto _____ hour should normally be allowed by the SM depending upon trains in the section (Appx XIII-5)
12. If Disconnection is not allowed by the SM, it should be requisitioned again by the S&T Official and allowed by the _____ depending upon the flow of trains. Otherwise, the available slot may be indicated by the Control to the S&T staff. (Appx XIII-5)
13. If the maintenance / repair of S&T gear is urgently needed to avoid an accident, the same may be suspended with the approval of _____. (Appx XIII-5)
14. For works involving disconnection for more than one hour, a Disconnection schedule jointly signed by _____, _____, _____ & Sr.DEE/TRD and the progress of the joint schedule should be reviewed by the DRMs periodically. (Appx XIII-5)
15. For Disconnections / maintenance likely to last for more than a day _____ must be issued (Appx XIII-5)
16. _____ message from the Station Master is only the intimation for the S&T maintenance staff to attend the defect/failure. (Appx XIII 7)
17. The Relay room shall be kept locked with two independent locks or single lock with double key, one key of the lock shall be kept with _____ and other key with _____. (Appx XIII-4)
18. The Station Master shall hand over the Relay room key to the S&T staff after obtaining the signature in the _____ register. (Appx XIII-6)
19. SWR consists of _____ paras and _____ appendices. (Appx XIV)
20. Para 8 of SWR deals with the topic _____ (Appx XIV 8).
21. Information regarding System and means of working is available in the _____ of SWR. (Appx XIV .3)
22. Working of Level Crossing Gates are given in the Appendix _____ of SWR. (Appx XIV)
23. Duties of Train passing staff and Staff in each shift are given in the Appendix _____ of SWR. (Appx XIV)
24. Appendix 'E' of SWR deals with _____ (Appx XIV).
25. The general precautions to be observed by station staff at O H E worked station is depicted in Appendix _____ of S W R. (Appx XIV)

APPENDIX XVI and XVII

1. In the EMU/MEMU Bell code 000 pause 000 indicates _____ . (Appx XVI 1.1)
2. Only _____ persons other than the Loco Pilot/Motorman or Guard are authorized to travel in the Cab of EMU/MEMU with special permits.(Appx XVI 2)
3. _____ test should be conducted before taking out MEMU/EMU on the 1st daily service run from MEMU/EMU shed, stabling siding and platform line. (Appx XVI 5)
4. When the power go off the line, while the EMU/MEMU is standing on a grade, the Loco Pilot/Motorman must immediately apply the _____ in both cabs to the full extent and apply the wedges towards the _____.(Appx XVI 7)
5. If the detention exceeds or it is likely to exceed _____ minutes, the EMU/MEMU shall be protected as per Rule 6.03/9.10 (Appx XVI 8)
6. In the event of fire on any part of the electrical equipment, the affected part is first to be completely _____ from the distribution system.(Appx XVI 9.1)
7. In the event of fire on EMU/MEMU, the Loco Pilot/Motorman shall immediately _____ and lowers the pantograph.(Appx XVI 9.2)
8. In cases where the leading cab of an EMU/MEMU has become defective, the maximum speed shall be _____ Kmph.(Appx XVI 10)
9. In cases where the leading cab of an EMU/MEMU has become defective, brake equipment in the leading cab is inoperative; the maximum speed shall be _____ Kmph.(Appx XVI 10)
10. According to the density of traffic to the sidings, the rakes will be moved as per (A) One Pilot Only System or (B) _____ System.(Appx XVII)
11. _____ is authorized to prescribe either one pilot only system or multiple pilot system of working on the basis of traffic to be dealt.(Appx XVII)
12. At serving station where sidings are take off, the Station master must maintain _____ register to record the detail of all pilot movements.(Appx XVII)
13. _____ of the train or in his absence any _____ staff deputed by Station Master is in charge of the Pilot.(Appx XVII)
14. _____ of the Pilot is responsible for the safe working of the Pilot and for the correct setting and securing of points.(Appx XVII)
15. In the _____ system, before leaving station, LP will be given authority to proceed to the siding and return to the station.(Appx XVII)
16. On complete arrival of the Pilot train inside the fouling mark, the _____ shall make an endorsement in the Pilot Movement Register. (Appx XVII)
17. In the _____ system, LP will be given separate authorities from station to siding and siding to station.(Appx XVII)

18. Reception of pilot train into station can be done by taking off _____ or _____.(Appx XVII)
19. In the Multiple Pilot system, in the event of failure of means of communication with siding, SM has to adopt _____ system till restoration of any one of the communication.(Appx XVII).

BLOCK WORKING MANUAL

1. In the Daido handle type block instrument, to cancel the Line clear, when train has not left the station _____ switch is to be operated. (BWM-B-1.2(j))
2. In the Podanur push button block instrument _____ indicator is an aid to the SM to verify if all relevant controls, levers/knobs, signals etc., are normal. (BWM-B-1.3(o))
3. When Home signal is defective on D/L, its lever/knob should be kept in _____ position to prevent _____.(BWM-C-1.5 note)
4. Five beats are given for cancelling last signal and _____. (BWM-A-B-C-2.3.5)
5. Bell code to be given SM in advance when unsafe condition on a run through train is observed is _____.(BWM-A-B-C-2.3.6(b))
6. The number of bell beats that are to be given when the block instrument is tested by SI is _____.(BWM-A-2.3.7, B-2.3.7,C-2.3.7)
7. When acknowledgement cannot be obtained for 'Call attention' bell beat, after _____ seconds, again Call attention shall be given by SM. (BWM-A-2.5(d), B-2.4(d),C-2.4(d))
8. The Station Master taking over charge shall test the block instrument and make a record of the result then and there in the _____.(BWM-A-2.6 (e)note,B.2.6 (e)(i),C-2.7(e) note)
9. The Station Master who ask/grants line clear shall remain on duty till the _____ signal is received /acknowledged. (BWM-A-2.9 (a) ,B.2.7 (a), C-2.8(a))
10. The TSR shall be retained at station for _____ in which it is completed. (BWM-A-2.8, B.2.9, C-2.10)
11. SM shall test the Podanur push button block instrument /SGE block instrument by attempting to take off _____ without obtaining line clear..(BWM-B-2.6 (e)(iii),C-2.7 note (e) iii)
12. The time of relief and handing over the block instruments shall be recorded by the outgoing SM in the _____ along with the last number registered in the counters. (BWM-A-2.6 (e), B.2.6 (e),C-2.7(e))

13. On double line block instrument will be operated for obtaining line clear, by _____ and for closing block section by _____. (BWM-C-3.2(A) i 9)
14. In push button token less block instrument, _____ button is to be operated for cancellation of line clear along with BCB. (BWM-B-3.3(B)4)
15. In podanur push button block instruments, when cancellation button is operated, _____ indication appears after lapse of _____ seconds. (BWM-B-3.3(B) 5)
16. Slip/Catch siding key cannot be removed when Block instrument is in _____ position. (BWM-B-3.6)
17. In Single line Electrified sections _____ type of block instruments are only provided. (No.74/W3/SGF/6 dated 18.05.1982)
18. In push button token less block instrument when shunt key cannot be extracted for shunting purposes, the SM shall advise the SM at the other end to extract shunt key and keep it in his personal custody and LP shall be given _____ for performing shunting. (BWM-B-3.7.7)
19. For all Goods trains at originating station "is line clear" should be asked _____. (BWM-A-3.10, C-3.5(c))
20. At train starting station 'is line clear' shall be asked _____ minutes before the booked departure of the passenger carrying train. (BWM-A-3.10, C-3.5(c))
21. At intermediate stations, for all stopping trains with a halt of less than five minutes 'is line clear' shall be asked when _____. (BWM-A-3.10, C-3.5(c))
22. In the case of train is booked to run through a station, is line clear shall be asked _____ minutes before the train is due to pass. (BWM-A-3.10, C-3.5(c))
23. For run through trains whose running time is less than seven minutes, Line clear is to be obtained immediately after the _____ signal is received. (BWM-A-3.10, C-3.5(c))
24. _____ Private Number sheets shall be supplied to each Station Master. Only _____ sheet shall be in use at a time. (BWM-A-3.22 (e), B-3.18 (e), C-3.13(e))
25. To prevent Line clear from being taken by the SM of station in advance through Push button token less block instrument, the SM shall _____. (BWM-B-5.1 Note)
26. When SM does not want to grant line clear, he shall give _____ bell code signal. (BWM-A-B-C-5.1(a))
27. On double line sections when a train is pushed back after entering the block section on normal ATP, the next train shall be dispatched on _____. (BWM-C-5.5 note)
28. When Block forward or Block back is done on double line sections, the block instrument shall be kept in _____ position directly. (BWM-C-5.3.1, 5.4.1)

29. The Guards/Loco Pilots of all trains who are provided with VHF sets and Portable Field telephone, when delayed in the block section for over _____ for passenger carrying/goods trains shall inform the Station Master/controller. (BWM-A-5.5 (b), B-5.6 (b), C-5.7(e))
30. A relief engine should be sent, if the engine or vehicles running away have not arrived even after a lapse of _____ minutes more than the running time of the slowest speed goods train. (BWM-A-5.9 (a), B-5.10 (a), C-5.11(b), 5.12(b))
31. After the testing signals are exchanged, entries in red ink shall be made in the _____ and signed by both SI/ESM and the Station Master. (BWM-A-7.4 (f), B-7.4 (d), C-7.3(d))
32. Message for token balancing shall be given when the token balance falls to _____. (BWM-A-7.7(c))
33. While balancing of tokens is done, the block instrument shall be in _____ position. (BWM-A-7.7(e))
34. When 'Train on line' buzzer fails, the block instrument shall be _____. (BWM-A-8.1(a)vii)
35. "Lost Token" notice shall remain pasted at the both stations for a period of _____. (BWM-A-8.2(e))
36. Block instrument failure either at station 'X' or station 'Y' shall be recorded by both Station masters of 'X' and 'Y' in their _____ register. (BWM-A-8.3, B-8.3, C-8.3II)
37. In the event of failure or suspension of block instrument, before signaling a train through any alternative means of communication both SMs shall _____ and record in the TSR in red ink. (BWM-A-8.5(d), B-8.5(d), C-8.6(d))
38. Before despatching a train using the Block telephone, Both SMs shall cross check _____ for the last three preceding trains and record these particulars in the TSR. (BWM-A-8.7(b), B-8.7(b), C-8.7(b))
39. Before despatching a train using the Control telephone, Both SMs shall cross check _____ for the last three preceding trains and record these particulars in the TSR. (BWM-A-8.8(c), B-8.8(c), C-8.8(c))
40. VHF sets as a means of communication for prolonged duration of _____ hours or more should be permitted only in the presence of supervisory staff. (BWM-A, B, C-8.9 Note(i))
41. When BPAC fails, it goes to _____ mode after resetting the instrument with cooperation with SM/advance. (S.R.14.3.2.3)
42. When there is no response for call attention bell, efforts shall be made to attract attention of SM/advance on other means after a lapse of _____ minutes. (BWM-A-B-8.5(a), C-8.6(a))
43. Authorised means of communications in the order of priority are [i] block instrument, ----- or track circuits. (BWM-A-B-8.5(b), C-8.6(b))
44. When block telephone fails next means of communications for obtaining line clear is _____ where provided. (BWM-A-B-8.5(a), C-8.6(a))

45. To obtain/grant line clear through VHF set SM shall switch over from common frequency/channel to freezed channel/frequency No. _____ (BWM-A-B-C-8.9 a/l)
46. Freezed channel/frequency are channel _____ for 1st adjoining section, channel _____ for 2nd adjoining section and channel _____ for 3rd adjoining section (BWM-A-B-C-8.9 (l))
47. _____ trains are not allowed when VHF set is used as sole means of communication. (BWM-A-B-C-8.9 note ii)
48. VHF set shall not be used as means of communication where _____ are provided. (BWM-A-B-C-8.9 note iii)
49. In Automatic block system, alternate means of communications are (i) _____ wherever available (ii) Fixed telephone such as Railway auto-phone and _____ (iii) _____ and (iv) VHF set. (S.R.9.12.3.5.1)
50. Even if tail lamp/tail board is not found closing block section need not be held up where _____ are provided. (S.R.4.17.2 Note)
51. During PLCT working entries shall be made at receiving end in _____ in addition to TSR. (BWM-Annex-1.1(b))
52. While issuing PLCT, loco pilot's signature is to be obtained in _____. (BWM-Annex-1.5(a))
53. All block instruments are proving _____ position of First stop and Last stop signal (S.R.3.24/No: 93/SIG/M/11 dated 16.02.1996)

ACCIDENT MANUAL

1. In an accident if the damage to Railway property, the value of which exceeding Rs.2 crores, such accident shall be treated as a _____ accident (AM 103 .c)
2. Accidents are classified under following heads 1]
 _____ 2) _____ 3) _____
 4) _____ 5) _____. (AM 105)
3. An example of consequential train accident is _____. (AM 105.2)
4. An example of indicative accident is _____ (AM 105.9)
5. If, outside the station limits, the distance between the two trains is _____ or more, such occurrence may not be treated as averted collision. (AM 105.10)

6. 7A . An occurrence may not be treated as an Averted Collision , if , outside the station limits, the distance between the two trains is _____or more. (AM 105.10)
7. Train passing signal at Danger is classified under _____ accidents. (AM 105.12)
8. The threshold value in terms of loss of Railway property is fixed at Rs _____ in an accident. (AM 108)
9. 6 A. For statistical purpose , accidents have been classified under categories 'A' to 'R', excluding ____ and _____. (AM chap – II).
10. As per classifications, Collisions come under class _____. (AM 201.1)
11. As per classifications, Fire in Trains come under class _____. (AM 201.2)
12. An example of breach of block rules is _____. (AM 202.G)
13. If gate telephone fails for more than _____ minutes, it shall be treated as equipment failure. (AM 203.4.M.7)
14. In case of suspected sabotage, SM has to lodge FIR at _____ in addition to all concerned message. (303.9.d).
15. Reportable Train accidents means all accidents falling under the purview of section _____ of the Railway Act 1989. (AM 401)
16. Whenever accident takes place, SM and GLP has to prepare report in the format given in form _____ and _____ respectively. ((AM 411.1).
17. Whenever accident takes place, blood samples are to be collected from _____ in addition to GLP of the ill fated train. (AM 501.2 .iii).
18. After accident the unaffected portion of the train may be moved for restricted use, _____ after _____ the _____ certification _____ by _____ / _____ / _____ in the order of priority. (502.2.b).
19. Accident siren three long indicates _____. (AM 602 .S.no.2)
20. Accident siren when accident takes place at out station, main line obstructed and MRT required is _____. (AM 602 .S.no 5)
21. The target time for turning out ART is _____ by day and _____ by night. (603.2.d)
22. The target time for turning out MRT is _____ for direct/indirect dispatch. (605.4)
23. ARME scale –I comprises of _____ and _____. (AM604.1.v)
24. Scale II ARME is stored in boxes in a separate room adjacent to the _____. (AM604.2.i)
25. DMO should inspect the Medical Van scale I equipment once in _____ and scale II equipment once in _____. (AM.605.6)

26. Trail run of MRV on passenger train shall be done once in a _____.(AM 605.7)
27. Mock drills for ART shall be conducted once in _____. (AM 618)
28. In case of death in Train accident/manned LC gate accident Rs _____ / _____ is paid as ex-gratia. (AM 801)
29. In case of serious injury in a train accident Rs. _____ is paid as ex-gratia (AM 801)
30. The amount of compensation to be paid in case of death in railway accident is Rs _____.(AM 801)
31. The claim for compensation shall be made within _____ from the date of accident through _____.(AM 803.3).
32. Target time to submit the inquiry report by the committee to DRM / GM is _____. (AM 907.4)
33. When SM receives message about unsafe condition of tanks, rivers and bunds, he shall stop the train and issue caution order to observe _____ and reduce speed as necessary .(AM 1101)
34. When persons are knocked down or run over and dead, no responsible person is available, body shall be handed over to nearest _____ or next _____ in the direction of movement.. (AM 1102 .iii)
35. When murder took place in a second class or sleeper class compartment , the carriage will be detached at the station where the crime was _____.(AM 1107)
36. If the crime took place in an AC coupe / cabin / coach, the coupe / cabin / cubical shall be emptied of passengers and the carriage is allowed to proceed to the nearest station, where it can be _____.(AM 1107.c)
37. Rainfall above _____ cm in 24 hours is considered as dangerous for running trains. (App. IV-1)
38. Heavy wind above _____ kmph is considered dangerous for running trains. (App. IV-1)
39. South Central Railway is divided into _____ zones for the purpose of Weather Warning.(App. IV-1.2.a)
40. On receipt of weather warning message, the Station Master should immediately arrange to hand over to the parties concerned and obtain _____.(App. IV-1.3.c).

VARIOUS SPEED RESTRICTIONS

S.No	DESCRIPTION [AT STATION]	SPEED[kmph]	RULE REF.
1.	Failure of LSS in Automatic block –D/L	10 up to next signal	SR.3.12.3
2.	Goods trains –entering terminal yards	15	SR.3.36.4
3.	While testing detonators	8--11	SR 3.64.5.6
4.	On non-interlocked points	15	GR. 4.10
5.	1 in 8½ turnout —a]goods	15	SR.4.10
	b] Passenger carrying trains	10	
	c] with curved switches, PSC sleepers and 52/60 kg rails---- both passenger and goods	15	
	d) symmetrical split with thick web switch with 52/60 kg rails on PSC sleepers	30	
6.	TTM speed over points and crossings	10	SR 4.65.1.1
7.	Trolley over points and crossings	15	SR.15.25.10.2
8.	STD.I (R) Interlocked M/L facing points	Up to 50	Appendix XI 1.3
9.	STD.II (R) Interlocked M/L facing points	Up to 110	Appendix XI 1.3
10.	STD.III (R) Interlocked M/L facing points	Up to 140	Appendix XI 1.3
11.	STD.IV (R) Interlocked M/L facing points	Up to 160	Appendix XI 1.3
12.	STD III interlocked M/L facing points	MPS	SEM Part I
	[IN BLOCK SECTION]		
13.	IBS at ‘ ON’-----phone defective	15/8	SR.3.75.4

14.	During dense fog—in section	a) Absolute-60 b) Automatic-Green- 60 Double Yellow- 30 Single yellow – restricted speed to be able to stop at next signal	SR.4.08.2
15.	While pushing the train— a) Guard in the leading vehicle b) Guard is not in the leading vehicle c) without brake van	25 8 Walking speed	SR.4.12.2.3
16.	Patrol or Search light special with one or more vehicles in front	40	GR 4.12.1
17.	Failure of Headlight	40 or severest SR	SR.4.14
18.	Shunting Generally Explosives Non-roller bearing—Hand shunting	15 08 05	SR 5.13 SR 5.20.5.3
19.	Rail breakage---up to 30mm I train II and subsequent trains	10 15	SR.6.01.2.3.3
20.	When train/engine is sent into occupied block section on T/A602	15/10	SR 6.02.6.1
21.	Light engine proceeding on T/B602 to open communication	15/10	SR 6.02.4.6.1
22.	During TIC on D/L Train proceeding on T/C602	25/10	SR 6.02.3.3.2
23.	When Block Tkt [T/J 602] is issued	15/8	SR 6.02.5
24.	First train during TSL. Working	25	SR 6.02.1.11
25.	During TIC on S/L When line clear is obtained for more than one train---- speed of second and subsequent trains	25/10	SR.6.02.4.18

26.	On seeing flasher light	20/10	SR 6.03.7
27.	When 'lurch' is reported and subsequently a train is sent with engineering official, caution order	Stop dead short of expected portion of the track.	SR.6.07.1(d)
28.	When 'lurch' is reported and subsequently a train is sent without engineering official, caution order	Stop dead before the affected KM and proceed with 10km after satisfying condition of the track	SR.6.07.1(e)
29.	Light engine returning on T/609 to clear left over portion	25	SR 6.09.7
30.	When LOCO PILOT passes Automatic signal at ON	10	SR.9.02.3
31.	Failure of LSS in Automatic block S/L--I Train	25	SR.9.06.5
32.	First train is proceeding on T/D912	25	SR.9.12.1.6.2
33.	When train is proceeding on T/B912	25/10	SR.9.122.4.3
34.	During TSL Working in automatic block First train on wrong line	25	SR.9.12.3.10
35.	Speed of the relief engine on T/C 912	15/10	SR 9.12.6.1.3
36.	Speed of the following tower wagon/TTM (day/night)	25/10	SR 15.06.4.3
37.	Speed of the Material train/tower wagon/TTM during integrated/shadow block (day/night)	15/8	SR 15.06.4.4.1
38.	After stopping at Stop Indicator	8	SR15.09.3
39.	When major work is in progress—speed of trains on adjacent line	50	SR 15.09.6
40.	When water rises over ballast level but below rail level	Stop and proceed 8 (2 gang men should walk abreast on sleepers)	SR.15.17.3
41.	When water overtops the rail	Stop and proceed 8 after certification by PWI	SR.15.17.3

42.	Motor trolley during night	30	SR.15.25.10
43.	Passing neutral section —minimum	30	SR.17.07.1
44.	In cases of emergency Asst.Loco Pilot drives the train up to next point where he can be relieved	40	SR.17.09.5.7
45.	Electric loco leading driving compartment is defective--- a)Loco Pilot remains in leading driving comp. Train is driven by Asst.Loco Pilot from rear driving compartment B) Loco Pilot drives from rear driving compartment. Asst. remains in the leading compartment	40 15	SR.17.09.12.2 SR.17.09.12.3
46.	First train to enter healthy section which is temporarily isolated and re-energized	60/30	SR.17.09.16
47.	When patrolman has not turned up after 15 mts beyond schedule arrival	40	App. (10).4.3
48.	When a four wheeler vehicle is attached to passenger carrying train.	BG—75 MG—50	App.VIII.8.5.3
49.	Unsafe condition of bunds of Tanks or Rivers	Special caution	Accident Manual 1101
50.	When ODC is by train Class A Class B Class C	BG MG 75 25 40 25 25 15	WTT

AUTHORITIES

1. Normal authority to proceed on Single Line token section is _____ **TOKEN**
2. Normal authority to proceed on Single Line token less section and on Double line section is _____ **OFF POSITION OF L.S.S.**
3. When a Loco Pilot has been advised of a defective reception stop signal of a station in advance through the S.M. of station in rear, the authority to pass such signal is _____ **T/369(1) +PHS AT THE FOOT OF THE SIGNAL**
4. Authority to pass defective OUTER/HOME/STARTER signal is _____ **T/369(3b)+PHS**
5. Authority to pass defective Shunt signal / Shunting permitted indicator is _____ **T/369(3b)+PHS**
6. When train has passed starter signal partly when the signal is at ON and stops, it shall be started on _____ **T/369(3b)+MEMO(COUNTER SIGNED BY GUARD)+PHS+ATP**
7. When LSS becomes defective on Double Line in Automatic block system _____ **(T.369(3b)+CO (10/8kmph up to next signal.)**
8. Caution order (Divisional/Sectional) _____ **T/409**
9. Caution order (Nil) _____ **T/A 409**
10. Authority for the material, after completion of work coming back to the same station – **T.462**
11. Authority for the material after completion of work going to the next station ---- **T/A.462**
12. Authority for the TTM, after completion of work coming back to the same station – **T.465**
13. Authority for the TTM, after completion of work going to the next station – **T/A.465**
14. Authority when more than one TTM is permitted in the same section and returning back to the same station for the First TTM is—T.465 and subsequent TTM's-----**CO**
15. Authority when more than one TTM is permitted in the same section and going to the station in advance first TTM is given---CO and last TTM is given---**T.A 465**
16. Authority to receive a train on to an obstructed line/ non-signaled line _____ **T/509**
17. To start a train from a line not provided with Starter Signal and ATP is not tangible _____ **ATP+T/511**
18. To start a train from a line provided with a common starting signal for a group of lines _____ **ATP+T/512 +common starter taken 'off'**
19. To send a relief engine/train or train into occupied block section _____ **T/A.602**
20. Engine going for opening up communication during total interruption of communication on Single Line _____ **T/B602**

21. To dispatch a train during total interruption of communication on Double Line sections_____ **T/C602**
22. For working trains during T S L working on double line_____ **T/D602**
23. For engine going for opening up communication during total interruption of communication on Single Line when Line Clear is required for more than one train_____ **T/B602+T/E602**
24. In case of even flow of traffic during TIC on S/L, after opening up of communication, Line clear enquiry can be made for subsequent trains through____ **T/E602**
25. Conditional line clear reply message_____ **T/F602**
26. Conditional Line Clear Ticket for UP/DOWN trains____ **UP-T/G602. DOWN-T/H602**
27. Form that has to be used for exchanging messages after any one of the means of communication is restored_____ **T/I602**
28. Block Ticket is prepared in Form No._____ **T/J602**
29. Written permission given by Guard to Loco Pilot during divided train working____ **T/609**
30. When a train without guard is divided in the section, after dropping the first portion, authority for light engine returning to pickup second portion _____ **T/A 602**
31. Shunting order (Shunting instruction form) _____ **T/806**
32. Authority to go up to opposite FSS for shunting purpose in Token area____ **T/806**
33. Authority to go up to opposite FSS for shunting purpose in Token less area____ **T/806+SHUNT KEY OR T/806+PN**
34. Authority to go beyond opposite FSS for shunting purpose on Single line____ **ATP+WRITTEN MEMO TO PUSH BACK+TAKING OFF SIGNALS**
35. Authority to enter block section in rear on Double line section for shunting purpose_____ **T/806(WITH PN)**
36. Authority to enter block section in advance on Double line section for shunting purpose_____ **TAKING OFF SHUNT SIGNAL BELOW LSS/LSS LEVER KEY/T-806(WITH PN)**
37. Authority to enter block section in advance on Double Line section for shunting purpose behind the travelling away train _____ **taking off shunt signal below LSS or LSS laver key or T/806 without PN**
38. When LSS becomes defective on Single line Automatic block system____ **(T/A912+PLCT)**
39. During prolonged failure of all signals and communication on Double Line Automatic block system_____ **T/B912**
40. For relief engine/train to enter occupied block section in Automatic block system____ **T/C912**

41. During prolonged failure of all signals and communication is available on Double Line Automatic block system_____ **T/D912**
42. Authority to despatch the trains during temporary single line working on Automatic block system (first train on right line and all trains on wrong line) – **T/D 602 + T/A 912**
43. Authority to open communication on single line automatic block system is – **T/B 602 + T/A 912**
44. Before issuing PLCT –Line Clear Enquiry _____ **T/A1425**
45. Before issuing PLCT –Line Clear Reply _____ **T/B1425**
46. PLCT-UP _____ **T/C1425**
47. PLCT-DOWN____ **T/D1425**
48. To pass Home Signal of class C station on Double line section _____ **PLCT**
49. In IBS area, before a train leaves the station if it is known that the IBS/LSS/AXLE COUNTER/TRACK CIRCUIT is failed _____ **PLCT+T/369(3B)**
50. When Loco Pilot enters block section without an ATP and report is sent to station in rear, the SM gives _____ **PLCT**
51. Trolley/Lorry/Ladder Trolley Notice _____ **T/1518**
52. Motor trolley permit in token less single line and double line sections on Absolute Block system____ **T/A1525**
53. Motor trolley permit in single line and double line sections on Automatic Block system____ **T/A1525**
54. Motor trolley permit to follow a train/engine/another motor trolley _____ **T/1525**
55. Authority for Tower Wagon, after completion of work coming back to the same station- **T.1708**
56. Authority for Tower Wagon, after completion of work going to the station in advance – **T/A.1708**
57. Authority when more than one Tower wagon is permitted in the same section and returning back to the same station for the First Tower car is—T.1708 and subsequent Tower cars-----**CO**
58. Authority when more than one Tower wagon is permitted in the same section and going to the station in advance first Tower wagon is given---CO and last tower wagon is given---**T/A 1708**
59. S&T Disconnection and Reconnection Notice _____ **S&T(T/351)**
60. Train Examination Advise _____ **T/431**
61. Combined Train Report _____ **T/720.**

UPDATED UPTO AMENDMENT SLIP NO 11 (MARCH 2014)

**COMMERCIAL
STUDY MATERIAL
FOR

STATION MASTERS**

TATKAL RESERVATION

1. To meet the urgent travel requirement of passengers at short notice *tatkal* reservation is provided.
2. Tatkal reservation is provided to full fare paying passengers only and not allowed on concessional tickets / free pass holders.
3. Tatkal advance reservation will commence 1 day in advance excluding the day of journey at the train starting station. On the opening day, reservation will open at 10 hrs.
4. Tatkal scheme is available in all classes except IAC and in all trains.
5. Tatkal booking is done on first come first serve basis.
6. A maximum of 4 passengers can be booked on a tatkal ticket.
7. Separate quota is earmarked in each class as per demand.
8. The Tatkal Charges are 10% of basic fare for II Sitting and 30% of basic fare for all other classes subject to minimum and maximum as given below:-

Class	Minimum Charges (Rs.)	Maximum Charges(Rs.)
II	10.00	15.00
SL	90.00	175.00
ACCC	100.00	200.00
3 AC	250.00	350.00
2 AC / EC	300.00	400.00

9. In case of ordinary trains, minimum Tatkal charges prescribed for different classes will be applicable as FLAT CK Charges
10. Reservation under this scheme shall be available up to preparation of chart. After preparation of chart, all vacant berths in train treated as normal train accommodation
11. Tatkal tickets will be issued for actual distance of travel, subject to the distance restriction applicable to the train.
12. Change of name on tatkal ticket is not permitted.
13. No Duplicate Tatkal Ticket shall be issued. Duplicate Tatkal tickets shall be issued only in exceptional cases by CRS on payment of Full fare including Tatkal charges
14. Boarding enroute is permitted as per rules.
15. Wait list tickets may be issued under tatkal scheme up to the extent of tatkal quota.
16. Unutilized quotas of defence, foreign tourists etc will be used for clearance of tatkal wait list on priority.
17. Agents / RTSAs shall be restricted from the booking Tatkal tickets at the counters/online between 1000 to 1200 hours.

Procedure for Booking:

18. Tatkal tickets shall be issued only on production of one of the ten prescribed proofs of identity as given below.
 - i) Voter Photo Identity Card
 - ii) Passport
 - iii) PAN Card
 - iv) Driving License
 - v) Photo Identity Card issued by Central / State Government with serial No.

- i. Pension Pay Orders
 - ii. Ration Card with photographs
 - iii. Senior citizen cards
 - iv. Below poverty Line (BPL) Cards
 - v. ESI cards (with photograph) issued for taking treatment in ESI dispensaries
 - vi. CGHS Cards (with photograph) issued to individual family members of Central Govt. employees
 - vi) Student Identity Card with photograph issued by recognized School/College for their students
 - vii) Nationalised Bank Passbook with photograph and
 - viii) Credit Cards issued by Banks with laminated photograph
 - ix) Unique Identification card, "Aadhaar"
 - x) Photo ID card having Serial No. issued by PSUs of State/Central Govt., District Administrations, Municipal bodies and Panchayat Administrations
19. A self attested photo copy of identity proof of anyone passenger to be attached to the requisition slip.
 20. Provision of capturing the number of proof of identity for all the four passengers has been provided.
 21. Those passengers who want to indicate the number of proof of identity for more than one passenger will be required to produce copy(ies) of prescribed proof(s) of identity for additional passenger(s) also.
 22. The numbers of such identity card(s) will also be captured by the system and will be reflected in the reservation chart and on the ticket.
 23. Once the Tatkal ticket has been booked, details of additional Identity Cards shall not be captured subsequently.
 24. It will not be mandatory for the passenger(s) to go to the counter to book the Tatkal ticket, however, the proof will have to be sent in the aforementioned manner.
 25. During the journey, the passenger, whose identity card number has been indicated on the ticket, will have to produce original proof of identity indicated on the ticket.
 26. Otherwise, all the passengers booked on the ticket shall be treated as travelling without ticket and charged accordingly.
 27. Indication will come on the ticket regarding carrying the same original proof of identity during the journey, as indicated on the ticket.
 28. In case the number of proof of identity of more than one passenger has been indicated, during the journey, even if anyone passenger produces the original identity card indicated on the ticket as well as reservation chart, all the passengers can undertake the journey.

Refund on tatkal tickets:

- No refund is granted on fully confirmed tatkal tickets.
- For refunds on wait list tatkal tickets, normal rules applicable for general tickets are applicable to tatkal tickets.
- In case of cancellation of partially confirmed Tatkal ticket, refund for only waiting list Tatkal ticket will be given. However, full refund of fare less clerkage is given for confirmed passengers also if entire ticket is cancelled six hours

before scheduled departure of train and upto two hours of actual departure of train

Full refund of fare and Tatkal Charges will be granted on the tickets booked under this scheme in the following circumstances:-

- If the train is cancelled.
- If the train is delayed by more than 3 hours at the journey originating point of the passenger & not the boarding point if the passenger's journey originating point and boarding point are different.
- If the train is to run on diverted route and boarding station or the destination station or both the stations are not on the diverted route.
- In case of non-attachment of coach in which tatkal accommodation has been earmarked and the passenger has not been provided accommodation in the same class.

If the party has been accommodated in lower class and does not want to travel. In case the party travels in lower class, the passenger will be given refund of difference of fare and also the difference of tatkal charges, if any.

E – TICKETING

Indian Railways has launched the scheme of e-ticketing to facilitate public to book their tickets on line from the comforts of their home / office. The tickets can be booked through the web site of *Indian Railways Catering and Tourism Corporation Ltd.*, www.irctc.co.in.

Booking of e-tickets

1. Customers should register in the above site to book tickets. The registration is free.
2. No user can register more than once in the site.
3. Before registration, customers should go through the “Terms and Conditions” which are available in the website.
4. Full fare tickets, child tickets and tickets to senior citizens at concessional rates can alone be booked through the web site.
5. e-tickets can be booked for journey between any two stations in the route of the train including originating and destination. e - reservation is available for all trains.
6. Booking timings are 00.30 hrs – 23.30 hrs on all days including Sundays. On opening day, booking starts at 08.00 hrs.
7. Confirmed, RAC, WL and Tatkal Tickets can be booked under e- ticketing.
8. Booking in general, ladies and tatkal quotas is permitted but there is no choice of allotment.
9. Non refundable service charge is collected by IRCTC as follows:

For SL / II Class	Rs.10/- per ticket irrespective of number of passengers
For all other classes	Rs.20/- per ticket irrespective of number of passengers

10. An individual can book a maximum of 10 tickets in a month.
11. Booking will be confirmed on line, on completion of the transaction.
12. Payment can be made through Net Banking, Debit Cards or Credit Cards.
13. After payment is made, the passenger should take out a print of the ticket, called *Electronic Reservation Slip* (ERS).
14. ERS is the printout in standard specified proforma containing reservation particulars, and instructions.
15. A screen-shot of the e-ticket displayed through laptops/palmtops/ Mobile phone is known as Virtual Reservation Message (VRM).
16. ERS/VRM/SMS sent by IRCTC, from along with any one of the nine prescribed ID proofs in original constitutes the travelling authority.
17. Any one of the passengers on a ticket has to carry any one of the following photo identity cards during journey.
 - i. Voter Photo Identity Card.
 - ii. Passport.
 - iii. PAN Card
 - iv. Driving License
 - v. Photo Identity Card issued by Central / State Government viz Ration Card, Senior Citizen Card, Below poverty line (BPL) card etc.
 - vi. Student Identity Card with photograph issued by recognized Schools / Colleges for their students

- vii. Nationalised Bank Passbook with photograph.
 - viii. Credit Cards issued by Banks with laminated photograph.
 - ix. Unique Identification Card, "Aadhaar"
 - x. Photo Identity Cards having serial number issued by Public Sector Undertakings State/ Central Government. District Administrations, Municipal bodies and Panchayat Administrations.
18. Failing which all the passengers booked on an e-ticket / m-ticket will be treated as travelling without ticket and excess charged accordingly.
 19. Before printing ERS, the passenger need not feed the ID particulars in the system.
 20. ERS/VRMSMS along with one of the nine prescribed proofs of identity in original will also authorize the passenger to enter the platform on the day of journey and he/she need not required to purchase platform ticket.
 21. ERS/VRM/SMS along with original id proof will be required to be produced on demand of Ticket Checking Staff on the platform.
 22. If the passenger or any one of the passengers on a ticket is not able to carry the ERS but is carrying the proper identity card, he / they can perform the journey after paying a charge of Rs.50.00 per ticket to the travelling ticket examiner as penalty, if his / their name / names is/are available in the chart.
 23. If the name(s) is/are not available in the chart, the passenger(s) is/are not authorized to board the train.
 24. Booking on concessions, passes, pre bought tickets, break journey tickets, police warrants etc. are not permitted.
 25. Modification of e- tickets is not permitted on line.
 26. However, change of name and boarding point can be made at PRS counters as per rules.
 27. Passenger(s) can not travel if the status of reservation is WL at the time of preparation of chart.

Cancellation of e-tickets:

- E-tickets will not be cancelled at railway counters.
- e-tickets can be cancelled through internet till preparation of chart.
- WL e-tickets not confirmed at the time of preparation of chart will be cancelled automatically by IRCTC online.
- Refund amount will be credited to the customer's bank account.
- After preparation of chart, the user should send e-mail (e.tickets @irctc.co.in) to IRCTC for cancellation of tickets.
- IRCTC will process the refund case with railways off line and refund will be credited to the customers account.

Partially Confirmed / RAC / WL Tickets:

IF on one PNR there are more than one passenger and one passenger is having Confirmed / RAC status and rest are on WL or vice-versa, names of all passengers booked on such PNR will appear in the chart.

A certificate can be obtained from ticket checking staff in the train regarding non-travelling of WL passengers on such tickets. Refund can be obtained thereafter

If all such passengers do not want to travel before chart preparation, on line cancellation can be done as at present. However, after chart preparation, online request can be sent to IRCTC for seeking refund. IRCTC will arrange the refund as per extant refund rules after verification of the same from Zonal Railways concerned.

RESERVATION ON PASSES

Pass holders or their representatives should present their pass along with the requisitions duly filled in to the reservation clerk who will issue ticket and make endorsement on the face of the pass indicating the train number, date of journey, status of tickets, etc.

Holders of Privilege, Duty, Post Retirement, Complementary, Metal and other passes may be allowed to seek fresh reservation only if the earlier reservation is cancelled.

In case of confirmed reservation on Privilege, Post retirement, Complimentary and other passes, the pass holder can make reservation a maximum of three times provided the earlier one has been cancelled before chart preparation.

If the confirmed reservation is not cancelled before preparation of charts, the pass will be treated as used. In exceptional cases, discretionary powers for allowing reservation on such passes only once can be delegated to JA Grade level office. At Divisional level, where any JA Grade level Commercial Officer is not available, the next senior most Commercial Officer may be delegated these powers.

There will be no restriction in number of cancellations in case of duty pass, metal pass and in case of tickets having a status of fully / partially WL (at the time of cancellation) against Privilege, Post Retirement and Complimentary passes. However, fresh reservation will be given only after the earlier one has been cancelled within the normal prescribed time limits.

Telephonic requests for reservation and cancellation will not be entertained.

The portion of break journey will be treated as separate journey i.e instructions given above will be applicable for each leg of journey separately.

It will be the responsibility of Office / Staff making reservation on Metal / Duty passes to ensure that between the same stations and on the same date, reservation should not be made in two separate trains or in different classes by the same train.

REFUNDS

Clerkage:

The charge levied for clerical work rendered in cancellation and refund of fares.

RAC:

Means a ticket on which a seat has been reserved against requisition for a berth. Berth may be subsequently provided against cancellation, if any.

Fare:

Fare includes basic fare, reservation charge and supplementary surcharge.

Refund on unused unreserved ticket:

Printed Card Tickets:

- Refund on unused unreserved ticket will be granted by the station master of the ticket issuing station.
- The details of the ticket are verified from the station records where the refund is granted.
- Ticket is presented for cancellation within 3 hours of issue of tickets. In case tickets are issued in advance, ticket is presented upto 24 hours of the day preceeding the day of journey.
- A clerkage charge of Rs.15/- is collected per passenger.

UTS Ticket:

- Ticket can be cancelled at any counter / any station irrespective of the place of purchase (Within the cluster stations only).
- For advance tickets, ticket can be cancelled upto 2400 Hrs of day preceding day of journey
- Ticket is presented for cancellation within 3 hours of issue of tickets. In case tickets are issued in advance, ticket is presented upto 24 hours of the day preceeding the day of journey.
- A clerkage charge of Rs.15/- is collected per passenger.
- In case of partial cancellation, system will print two tickets.
- First ticket is the journey ticket which is given to the passengers traveling.
- Second ticket is cancellation ticket which will be sent to accounts office along with original ticket as voucher.

UTS- Special Cancellation (CCM 152/2013)

UTS special cancellation form in UTS under option 13 can be used when train is running late by more than 3 hrs/Train cancelled under the following conditions

1. Only one train is running over section for particular destination or there is one train in morning and other in evening
2. Trains are issued for a specific train (Janshatabdi, Double Decker Trains)

Refund on unused reserved ticket:

1. Every refund of fare on reserved, RAC and wait list tickets is granted when tickets are surrendered for refund to the station master of issuing station.
2. Refund will be granted within the time limits prescribed in the rules.
3. Station master, after verifying the genuineness of the tickets through computer or from records of the station, will refund the amount as applicable.

I. Refund at ticket issuing and journey commencement station is same:

1. When tickets are presented for refund of fare to station master.
2. When ticket is presented within the time limits as per rules.
3. After verifying genuineness of the tickets.

II. Journey commencement station is other than ticket issuing station:

1. Refund will be arranged if the tickets are surrendered before departure of the train.

III. Refund of tickets at other than ticket issuing station and journey commencement station:

1. When the ticket is surrendered during working hours and before preparation of reservation chart.
2. After verifying the genuineness of the ticket.

REFUND OF FARES UNDER NORMAL CIRCUMSTANCES

No	Type of ticket	Time Limit for Cancellation	Cancellation charges / Refundable amount
1	Unused unreserved ticket	Within 3 hours of the issue of tickets	Clerkage of Rs.15/- per passenger
2	Unused unreserved Advance ticket	Up to 24:00 hours of the preceding the day of journey	
3	Unused reserved ticket (Confirmed)	(A). More than 48 hours in advance of the scheduled departure of the train	Minimum cancellation charge of Rs.120 – I AC Class / Executive class Rs.100 – 2 AC / First class Rs.90 – 3 AC/3 AC Economy/ACCC Rs.60 – Sleeper Rs.30 – II Class seat
		(B). Between 48 hours in advance and up to 6 hrs before the scheduled departure of the train	25% of fare subject to the minimum cancellation charges as above
		(C). With in 6 hrs before the scheduled departure of the train and after departure of the train Up to 2 hrs after departure of the train.	50% of fare subject to the minimum cancellation charges as above
4	Unused RAC / wait list ticket	after departure of the train upto 3 hours irrespective of distance	Clerkage of Rs.30/- per passenger
Note: For night trains leaving between 21 hrs to 6 hrs (actual departure) refund shall be admissible at the station within the time limits specified above or within 2 hrs after the opening of reservation office, which ever is later where there are no current counters.			

Clerkage Charges : Rs.15 for II Class unreserved Tickets
Rs. 30 for all other classes

Normal circumstances.....

No	Nature of ticket	Time Limit for Cancellation	Cancellation charges / Refundable amount
5	Unused reserved tickets confirmed for a part of the journey	Time limits as applicable for reserved, RAC, wait list tickets as mentioned above according to the reservation status of the first lap of the journey. (A). First lap of journey is confirmed. (B). First lap of journey is RAC / wait list.	(A). Cancellation charges will depend on time of cancellation and distance as applicable to reserved tickets for entire journey. (B) Rs.30/- per passenger for all other classes as clerkage
6	Refund on tickets where some Passengers are confirmed and others are RAC / wait listed.	(A) In case of partial cancellation (B) if entire ticket is cancelled within 6 hrs before the scheduled departure of the train and upto 2 hrs after the actual departure of the train	a. For confirmed passengers cancellation charges and for RAC/WL passengers clerkage charges b. Only clerkage charges of Rs.30/- per passenger will be deducted on all confirmed & RAC or wait list passengers.
7	Refund on cancellation of journey modified ticket	On preponed / postponed tickets where reservation charges are collected	Two cancellations charges, one as on date of preponement or postponement and date of original journey, the other as on date of revised journey and date of cancellation.

REFUND OF FARES UNDER ABNORMAL CONDITIONS

No	Type of ticket	Time Limit for Cancellation	Cancellation charges / Refundable amount	
1	Late running of train by more than 3 hours	Up to actual departure of the train at journey commencing station	Full fare is refunded without any deduction	
2	Inability of railways to provide accommodation to reserved passengers	Within 3 hrs after the actual departure of the train at the journey starting station.	Full fare is refunded without any deduction	
3	Failure of AC equipment	Within 20 hrs of actual arrival of the train at destination.	Class	Refundable amount
			I AC / Executive class	Difference of fare between I AC / EC & FC M/E
			2 AC / 3 AC	Difference of fare between 2 AC / 3 AC & SL M/E
			ACCC	Difference of fare between ACCC & II Class M/E
4	Travelling in lower class for want of accommodation	Within 2 days of issue of certificate.	Difference of fare between fare paid and the fare of class travelled.	
5	Change in train timings to earlier hours other than specified in the time table	After the actual departure of the train and within 3 hrs of the old departure of time. Available for 7 days only from the date of change of time.	Full fare less clerkage charge of Rs.30 per passenger.	

Abnormal conditions

No	Nature of ticket	Time Limit for Cancellation	Cancellation charges / Refundable amount
6	Missing of connection of outward journey due to late running of connecting train	Within 3 hrs of actual arrival of train by which the passenger has travelled.	Full fare for untravelled portion is refunded after retaining the fare for the travelled portion without cc.
7	Dislocation of train services enroute due to floods, breaches & accidents (a) Inability of Railways to make alternate arrangements within reasonable time (b) Passengers not willing to make use of alternative arrangement provided (c) Decision to terminate the train at enroute station is taken before departure of the train at originating station and still passenger undertakes journey	Refund will be granted at the station where the journey is terminated	(a). Full fare for the entire booked journey without clerkage. (b). Full fare for untravelled portion after retaining the fare for the travelled portion without cc. (c). Full fare for untravelled portion after retaining the fare for the travelled portion without cc.
8	Dislocation of train services enroute due to Bandh, Railroko etc.		Full fare for untravelled portion after retaining the fare for the travelled portion without clerkage
9	Cancellation of train due to accidents, breaches, floods etc.	Within 3 days of the scheduled departure of the train	Full fare for the entire booked journey without cc.
10	Death / Injury to a passenger in a railway accident	Within 3 days of the scheduled departure of the train	Full fare for the entire booked journey without cc.

Issue of duplicate ticket:

- a. If the passenger has torn / mutilated or lost / misplaced his reserved ticket, duplicate ticket can be issued.
- b. Duplicate ticket is not issued to wait listed passengers.
- c. The station master will issue duplicate ticket as follows on collection of prescribed charges.

Ticket status	Before preparation of chart	After preparation of chart	
	Torn / mutilated/ Lost / Misplaced	Torn / Mutilated	Lost / Misplaced
Confirmed	2) Rs.50/- per passenger in II & SL classes 3) Rs.100/-per passenger in all other Classes	25% of fare	50% of fare
RAC			Not issued.

- d.** A duplicate ticket in respect of group booking and special coach will be issued on collection of 10% of fare up to the time of departure of the train.

Refund on duplicate ticket:

1. Refund is not granted when the duplicate ticket is issued before preparation of chart.
2. When lost or misplaced ticket is traced after the issue of a duplicate ticket and presented before departure of the train, refund on duplicate ticket is allowed after deducting 5% of fare subject to a minimum Rs. 20/-
3. Incase journey is also not under taken the cancellation charges on original ticket will be deducted as per rules.
4. If passenger pays excess charge on train on account of lost reserved/RAC ticket, torn or mutilated , makes an application to a railway administration for grant of refund of the charges paid by him, CCM(Refunds) of that railway , after making such inquiry as he may deem necessary, grant refund of fare of total charges realized in the train, after retaining the cancellation charges at 50 % of single journey ticket fare provided no one has taken refund on the original ticket.

Issue of duplicate tickets in lieu of lost/misplaced or torn/mutilated reserved tickets against Pass/PTO

Duplicate tickets is issued as per the conditions given below

- Whether the status of the original ticket is Confirmed or RAC or Wait Listed
- The original Pass/PTO should be available
- Issued upto the departure of the train
- No charges are collected from pass holders
- Clerkage charge of Rs.10/- per passenger is collected in case of PTO holders.

Refund on tickets on which luggage is booked:

Refund of fare on unused tickets on which luggage is booked and journey is not undertaken, is granted as follows.

Luggage is withdrawn at starting station:

- Luggage ticket will be cancelled and freight will be refunded after recovery of wharfage charges if any and deduction of cancellation charges of Rs.10.00 per luggage ticket. Journey ticket shall be endorsed to the effect.
- On production of journey ticket the fare will be refunded, after verifying the endorsement duly deducting the cancellation charges or clerkage as per rules.

Refund to the person who did not travel on a combined ticket:

Before commencement of journey:

When it is known before commencement of journey that less number of persons will be traveling on a group ticket, the original ticket shall be collected at the station and a fresh PRS ticket is issued for the remaining passengers duly granting refund for the persons not traveling after deducting the usual cancellation charges.

In the case of UTS / SPTM tickets issued for more than one person, out of whom some do not travel, the cancellation charge shall be levied on the passengers not travelling and fresh ticket shall be issued for the passengers travelling.

After commencement of journey:

In cases where parties could not claim refund before the commencement of journey and approach the conductor / TTE of the train, conductor / TTE will make suitable endorsements in this regard on the ticket to enable the passengers to claim refund from CCM (Refunds) office. In addition conductor / TTE will make an endorsement on the reservation chart, prepare EDR so that necessary verification can be done by CCMs office before granting refund.

Refund can be claimed upto 10 days at any PRS location itself under *computerized coaching refunds scheme..*

Cancellation of partly confirmed and partly RAC / waitlisted tickets:

In such cases, cancellation charges will not be levied and only clerkage charges will be retained from confirmed passengers also provided that the entire ticket is surrendered for cancellation at the journey commencing station within 6 hours before the scheduled departure of the train and up to 2 hours after its actual departure.

Refund during major civil disturbances, curfew, bandh, floods, breaches, cyclones, earthquakes etc.:

When ever there are major civil disturbances, curfew, bandh, floods, breaches, cyclones, earthquakes etc., and passengers are not able to reach the station either to catch the train or to get refund within the stipulated time limits, the zonal railways are delegated with powers to issue local instructions in consultations with the FA&CAO and with the personal approval of the General Manager to station masters of concerned stations to grant refund of fare on unused tickets surrendered for refund up to a certain time limits. Such local instructions will be issued for concerned stations and for minimum period only after they are satisfied about the gravity of the situation. In such cases, refund will be allowed after deducting only the clerkage charge.

Refund on termination of train services at enroute station due to accidents, breaches & floods:

When a train is terminated at some enroute station due to unforeseen circumstances, such as accidents, breaches & floods and the Railway administration is unable to carry the passenger to his / her destination station within a reasonable time by arranging transshipment or diversion or otherwise, full fare for the entire booked journey

(without any deduction for travelled portion and without levy of cancellation charge) is refundable at the concerned en-route station where train service is terminated. It is clarified that when the decision to terminate the train at enroute (on account of the above mentioned reasons) has been taken before departure of the train from the train originating station and the passenger still undertakes journey, full refund for the entire booked journey will not be given. In such a case, fare for the travelled portion is to be retained and the balance refunded as the fare for the untravelled portion. It is further clarified that full refund for the entire booked journey is to be given at the train terminating en-route station, only in those cases where the decision had been taken after departure of the train from its originating station.

Refund at platform of train originating station when upper class coach is replaced by lower class coach:

Whenever an upper class coach is replaced by a lower class coach at the train originating station, zonal railways should make special arrangements at platform for refund of difference of fare to those passengers who are desirous of travelling in that lower class coach. In such cases, an EFT will be issued as the travel authority and difference of fare refunded to the passenger. The original ticket of higher class will be retained and to be accounted for as cancelled and fully refunded as per rules. Total charges of lower class and ticket number / reservation particulars of original ticket are shown on the EFT.

The procedure for grant of refund, in the case of lower class travel, at normal counters of originating stations and at destination stations on the strength of conductor / TTE's certificate will also continue. The passengers who do not want to travel in lower class and wants refund will continue to be granted refund from the normal counters of stations as per rules.

Refund on tickets up to the value of clerkage charge:

In all the cases where the fare collected is less than or equal to clerkage charge, no refund will be admissible on cancellation or surrendering of such tickets.

Refund on partially used tickets by Rajdhani / Shatabdi trains:

Since the fare for Rajdhani and Shatabdi trains is on point-to-point basis, break journey on tickets for these trains is not permitted and therefore no refund is admissible on partially used tickets.

Refund / Revalidation of tickets due to railways inability to provide reserved accommodation:

Under these rules, passengers holding reserved tickets are entitled for full refund on account of inability of the railway administration to provide reserved accommodation, subject to the conditions laid down therein. The same rule will apply in case of return journey reserved tickets and the station master of the station from which the journey has to commence should grant the refund from the station earnings on verification of genuineness of the tickets from his record. The station masters of the stations from which the journey has to commence are also authorized to revalidate such return ticket by alternative trains leaving in that direction if so desired by the passengers.

Refund in other circumstances:

For refund of fares under circumstances other than those specified above or where refund is not admissible or not granted at the station on account of expiry of time limits or otherwise, a *Ticket Deposit Receipt* is issued to the passenger in lieu of the surrendered ticket at the station where ticket is surrendered.

TICKET DEPOSIT RECEIPT (TDR)

1. When refund cannot be granted at a station, TDR is issued to the passengers.
2. All the railways for unused and partially used tickets will issue only one standard TDR.
3. TDR is in form of a machine numbered book with three foils namely,
(i). Passenger (ii). CCM (iii). Record
4. All the 3 foils contain necessary information in respect of cancellation of tickets to be filled by TDR issuing official.
5. Passenger foil contains guidelines for passenger and the other two foils contain instructions to the railway staff.
6. Ticket collector or station master will issue TDR. At important stations TDR books are available at refund counters itself, so that the passengers are dealt with at one counter only.
7. TDR can be obtained by passenger up to 3 days from the schedule departure of the train.
8. The TDR issuing staff will cancel the ticket & write TDR number on the ticket.
9. TDR is prepared through carbon process and passenger foil is handed over to the depositor.
10. The CCM foil of TDR along with cancelled tickets will be sent to CCM (Refunds) within 15 days from the date of issue through a special messenger.
11. No TDR should be dispatched to CCM's office without filling in the columns.
12. TDR must not be issued when refund is admissible at station.
13. On the back of the passenger foil of TDR, an application is printed.
14. Passenger must fill the application and apply to CCM (refunds) for refund within 10 days from the scheduled journey date.
15. On the application, party can prefer mode of payment which can be in the form of station pay order / cheque / money order.
16. In the CCM refunds office the claim will be processed.
17. Refund vouchers should be made in CCM's office separately for post check and pre check items.
18. The monetary limit under post check system is Rs 3000/- per passenger, exceeding above limits must be pre-checked.
19. Where payment is made through pay order passenger need not produce witness but he will be required to produce some proof of identity.
20. Railways should dispose cases within 16 days. However, the case is settled within 3 months from the date of receipt of original TDR from the passenger.
21. If refund is not admissible the reasons must be conveyed to the passenger.

COMPUTERIZED COACHING REFUND SCHEME(CCRS)*Purpose:*

CCRS is introduced to simplify the procedure for refund of fares on reserved tickets on normal circumstances and beyond the existing time limit.

How:

By updating the chart position in PRS to grant refund across the counter even beyond time limit any where in the country.

Updating of chart:

Ticket checking staff has to prepare *Exceptional Data Report* (EDR) after checking the coach on the following cases.

1. Passenger not turned up.
2. Forced to travel in lower class holding higher-class ticket.
3. Failure of AC equipment in the coaches.
4. Less number of passengers traveled on a group ticket.
5. Discontinuation of journey due to dislocation of train services.
6. Accommodation could not be provided.
7. Cancellation of trains.

Data Entry Point (DEP):

Data entry points are those stations where *exceptional data report* is fed into the PRS. These stations are nominated keeping in view the following conditions.

1. Change over stations of TTE's.
2. Availability of passenger reservation system.

*When and how refund is admissible:**Refund will NOT be granted in the following cases (CC/6/2014)*

- (a) Non-turned up passengers
- (b) Less number of persons travelling in a group

Refund will be granted for reserved and RAC tickets in the following cases (CC/6/2014)

- (a) Lower class travel
- (b) Failure of AC in coach
- (c) Discontinuation of journey by passengers due to dislocation of services.
- (d) Accommodation not provided and cancellation of trains.

Refund Procedure under (CCRS)

1. To a person who is booked on the concerned ticket.
2. Such person must come personally to claim refund.
3. Produce photocopy of any document proving his identity.
4. Photocopies to be verified with the original by the official granting refund.
5. At all PRS counters during working hours.
6. Up to 10 days from the scheduled departure time of the train from its originating station.
7. Normal cancellation charges shall be levied as per rules.
8. For those tickets particulars of which have been updated on the basis of EDRs.

Refund shall not be granted:

1. On waiting list tickets.
2. Where cash refund is not admissible at the station across the counter.
3. To any person who is not booked on the concerned ticket.
4. when the PRS is not updated with EDR

Instructions for ticket checking staff:

1. EDRs are prepared for each coach separately.
2. If a coach is not checked, the senior most TTE will certify this fact on the EDR of the particular coach giving reasons for not checking.
3. EDR is prepared in 3 copies.
4. EDR should be handed over within one hour after the arrival of train other wise the matter is reported to higher authorities.
5. For Passengers Not turned-Up, TTE has to give details of Passengers to whom such vacant berths are allotted

Disposal of EDR:

1. The original EDR is handed over to refunds supervisor at DEP under clear acknowledgement with date / time of receipt on carbon copy of each EDR.
2. One copy is attached to the original chart & amended chart and handed over to the outgoing TTE. Second carbon copy and the copy of amended chart are preserved as per existing rules.

Instructions to ECRCs / Refund supervisor:

1. Go through the EDR thoroughly.
2. Satisfy him self about the data to be up dated.
3. Only the relevant "reason code" is typed for each entry.
4. After feeding all the data for a particular train, the supervisor should cross check the entries through the "View up date details" menu option.
5. After feeding the data, he should record the time in the registers.
6. He should file the EDR coach wise and train wise for each date separately.
7. Refunds at stations are granted using option "refund issue form" of refund menu.
8. The system will generate a print out of the details of refund.
9. The counter clerk will sign in the print out and obtain the signature of the passenger on the ticket and printout.
10. The ticket is retained and the printout is handed over to the passenger as acknowledgement.
11. TDR is issued where refund could not be arranged at station level. "Refund Statement" along with tickets is handed over to the cashier on acknowledgement.
12. Any change in the rules / tariff / database notified should be adhered to manually till the changes are incorporated in the system.
13. Any malfunctioning of the system is reported to the concerned official.

RATIONALIZATION OF BOOKING AND CARRIAGE OF PARCEL TRAFFIC

Rationalization of parcel traffic is introduced due to the following reasons:

- For the convenience and development of traveling public
- For the free movement of passengers on platform
- Maintenance of punctuality of trains
- Reduction in over carriages of parcels
- Reduction in transit time of parcels
- To avoid over all decongestion of platforms at Railway stations

Loading / unloading at intermediate stations:

- Zonal Railway may allow loading /unloading of parcels at intermediate stations even the train stoppage is less than 5 minutes.
- Such relaxation permitted at one station for each train within the Zonal Railway
- This will be authorized jointly by COM, CCM

CLASSIFICATION OF TRAIN SERVICES - PARCEL/LUGGAGE TRAFFIC

1. The rate structure for booking of Parcel & Luggage traffic was rationalized during the year 2006. Instead of earlier commodity based rates structure, a new concept of service based rate structure for booking of parcel traffic was introduced.
2. There will be three Scales namely, Scale-R, Scale-P, Scale-S for charging of freight for booking of parcel traffic under different types of parcel service.
3. The type of service and scale applicable for booking of Parcel traffic under the different categories of service shall be as under:-

Type of train	Category of service		Scale applicable for Parcel booking	Scale applicable for Luggage booking
All Rajdhani/ Shatabdi/ Durgam Express trains	(i)	A Rajdhani/Shatabdi & Durgam train whose utilization of Brakevan is more than 50% and which has been leased out at scheduled rates	Scale – R*	Scale – L
	(ii)	A Rajdhani/Shatabdi & Durgam train whose utilization of Brakevan is more than 50% and which has been not leased out at scheduled rates	Scale – R*	Scale – L
	(iii)	A Rajdhani/Shatabdi & Durgam train whose utilization of Brakevan is less than 50% and which has been leased out at scheduled rates	Scale – R*	Scale – L
	(iv)	A Rajdhani/Shatabdi & Durgam train whose utilization of Brakevan (SLR) is less than 50% and it has not been leased out at scheduled rates	Scale – P	Scale – P

Note:- (*) While calculating rates for Rajdhani/Shatabdi/Durgam Trains, Parcel rates shall be charged 25% over the Scale-R rates.

Type of train	Category of service	Scale applicable	Scale applicable

			for Parcel booking	for Luggage booking
All trains	(i)	A train whose utilization of Brakevan is more than 50% and which has been leased out at scheduled rates	Scale – R	Scale – L
	(ii)	A train whose utilization of Brakevan is more than 50% and which has not been leased out at scheduled rates	Scale – R	Scale – L
	(iii)	A train whose utilization of Brakevan is less than 50% and which has been leased out at scheduled rates	Scale – P	Scale – L
	(iv)	A train whose utilization of Brakevan (SLR) is less than 50% and it has not been leased out at scheduled rates	Scale – S	Scale – S

Note : 1) If the utilization of the SLR falls short of the benchmark (50%), the existing scale should be retained instead of downgrading the scale (FM 24/2013)

- These rates shall be applicable to non-leased parcel traffic booked through Railway by various rail-users for transportation of their piecemeal consignments through train service Brakevans or Parcel Vans (non-leased).
- The originating zonal railways may identify, categorize and notify all trains for each direction separately as applicable for the purpose of charging of freight for the booking of luggage and parcel traffic accordingly.
- The minimum freight for non-lease Parcel Vans (VPHs/VPs/VPU's etc.) for which indents have been placed by the parties, shall be charged at 'Scale-P' even when attached by trains, which come under the category of 'Standard Parcel Service' at Scale-S.
- All types of Special Parcel trains shall be charged at Scale-P.
- All animals including Wild animals & Birds in Parcel Vans and Brake Vans shall be charged uniformly at Scale-L +25% irrespective of the category of the trains. No free allowance shall be permissible in case of booking of animals/birds as Luggage.
- Methodology for determining the percentage utilization of train While determining the percentage utilization of train, the originating zonal railway shall consider the overall utilization of Brakevan (SLR) at the originating station as well as other stations on the run of the train falling within the jurisdiction of same originating zonal railway, subject to all such stations falling within a maximum of one third (1/3) distance of the total route kilometer of the entire journey of the train. However, it may not be necessary to include the utilization of the Brakevan (SLR) of a train of all the stations falling within the jurisdiction of originating zonal railway. Once the overall utilization crosses the benchmark of 50% utilization of the Brakevan (SLR) of a train, this exercise need not be continued and the classification of train for the purpose of booking of parcel traffic may be revised. Annual reviews (based on last 12 months data) may be conducted for the period upto 31st January in order to account for changes in the percentage utilization of Brakevan (SLR) and the status of leasing.

BOOKING OF MOTOR CYCLES, CYCLES AND AUTOS

- These articles must be loaded in the brake van and not allowed with passengers in the compartment.
- No free allowance is granted.
- In case they are found un-booked with passengers either in a compartment or at destination, the same should be charged at six times of the scale 'L' for the entire distance subject to a minimum of Rs.50/- per article.

4. Railways do not accept any liability of detachable fittings unless they are separately packed and a receipt is given to them.
5. Such detachable fittings must be included in the minimum weight for charge.
6. These are charged at the scale applicable to the type of train by which it is carried as per the standard weight per article (unpacked) as given below.

<i>Type of vehicle</i>	<i>Chargeable weight</i>
Auto rickshaw	600 kgs
Bicycles	40 kgs
Bicycles children	20 kgs
Motor cycles & mopeds	100 kgs (upto 60 cc)
Motor cycles & scooters	200 kgs (above 60 cc below 350 cc)
Motor cycles	250 kgs (350 cc and above)
Rickshaws	150 kgs
Chairs invalid	150 kgs
Tricycles	100 kgs

7. Payment of percentage charge on excess value (PCEV) is compulsory on scooters and motorcycles when the declared value exceeds the railway liability.
8. Copy of the RC book to be submitted at the time of booking in case of motor cycles ,scooters and autos

WHARFAGE ON PARCELS

Wharfage is levied on consignments not removed from railway premises after expiry of free time.

Classification of Stations:

For the purpose of granting free time for removal of consignments and levy of wharfage, stations are classified into two groups.

- Notified Stations.
- Other than Notified Stations.

Permissible free time for removal:

Permissible free time for removal of consignments (other than leased) from railway premises is as follows.

Type of Station	Permissible free time for removal		
	Parcel / Luggage	2 /3/4 wheelers	Live Stock
Notified Stations	10 hours of working of delivery section of parcel office after consignment is unloaded	6 hours of working of delivery section of parcel office after consignment is unloaded	6 hours of working of delivery section of parcel office after consignment is unloaded
Other than Notified Stations	18 hours of working of Parcel office after consignment is unloaded		

Note:

Under any circumstances, live stock shall be removed from the Railway premises within 24 hours from the time of their arrival at destination, failing which they may be disposed off in accordance with the provisions of Sec 84 of RA'1989.

In case of leased traffic, free time for removal of consignments at destination station and free time for advance stacking at originating station shall be applicable as per the leasing policy.

Reckoning of National Holidays:

National Holidays, namely, 26th Jan, 15th Aug and 2nd Oct will not be reckoned in calculating free time for removal from Railway premises and for charging wharfage except in the case of

- (1) Live stock, perishable items at all stations and
- (2) Parcel / Luggage unloaded at Notified Stations.

Wharfage Rates:

The wharfage rates are as follows:

Type of Station	Rate of Wharfage Charge			
	Parcel / Luggage	2 wheelers MC/ Cycle	3 or 4-wheelers,.	Live Stock
Notified Stations	Rs.1.00 per 50 kgs or part thereof per hour or part of an hour	Rs.10.00 per article per hour or part of an hour	Rs.25.00 per article per hour or part of an hour	Rs.10.00 per head per hour or part of an hour
Other than Notified Stations	Rs.0.50 per 50 kgs or part thereof per hour or part of an hour			Rs.10.00 per head per hour or part of an hour

Note:

The expenses entailed in feeding the live stock will also be leviable irrespective of the fact whether the live stock was removed within the free time or beyond the free time.

Higher Wharfage Charge:

Higher wharfage rates may be notified by the DRM after giving advance notice of 48 hours for speedy removal of parcels at congested parcel offices upto six times the normal rate for that station in stages.

LIABILITY OF RAILWAY ADMINISTRATION FOR DEATH AND INJURY TO PASSENGERS DUE TO ACCIDENTS

Sections 123 to 129 of Railways Act 1989, deals with the liability of railway administration for death and injury to passengers due to accident. They are as follows.

Sec 123: Deals with definitions of various words and expressions used in this chapter:

Accident: An accident is an occurrence or event, which is unforeseen and startles one when it takes place. It is the happening of the unexpected but not the happening of the expected, which is called an accident. An accident means any occurrence being either collision between trains one of them being a passenger carrying train or derailment or other accident to a train or any part of a train carrying passengers, which endangers the safety of passengers or their baggage.

Section 124: Extent of Liability

Deals with the extent of liability of the railway administration in case of death or injury to a passenger or damage to his goods in an accident. Compensation in case of death is Rs.4,00,000/- Exgratia is as follows.

<i>Train accident</i>	Amount
Death	Rs.50,000/-
Grievous injury	Rs.25,000/-
Simple injury	Rs.5000/-
<i>Accident at manned level crossing gate (prima facie liability of Railway)</i>	
Death	Rs.50,000/-
Grievous injury	Rs.25,000/-
Simple injury	Rs.5000

Note: Exgratia means immediate relief rendered to the victims at the spot of any accident as a measure of immediate relief.

- Exgratia will be paid on certification of Railway Doctor in case of grievous or simple injury
- After payment is made to victims the acknowledgement of the party should be obtained
- Exgratia is paid in addition to the compensation allowed as per rules by RCT in case Train Accident or Untoward incident.

The rate of ex-gratia in case of grievously injured passengers who are hospitalized in case of Train Accident is as follows:

1. Rs. 25,000 lumpsum for hospitalization upto 30 days to take care of initial expenses
 2. Thereafter Rs.300 per day be released at the end of every 10 day period or discharge, whichever is earlier
- This ex-gratia payment will be exclusively for passengers who are grievously injured in train accidents or untoward incidents as defined under Section 123 of the Railways Act, 1989 and stay in hospital as indoor patients.
 - The maximum period for which ex-gratia payment is payable to the grievous injured will be 12 months.

- The period for treatment as indoor patient for more than 30 days would need to be certified by a Railway Doctor for the purpose of further ex-gratia payment up to the period of 11 months. In case where the injured is taking treatment in other than Railway hospital, the treatment has to be certified by Railway Doctor.
- Sr. Divisional Medical Officers shall also keep track of such injured persons taking treatment in other than Railway hospitals. Sr.DCM / DCM shall keep coordination with Sr.DMO for the purpose and arrange payment of ex-gratia every week at the doorstep of injured person. Every care shall be taken by Sr.DCM / DCM to avoid any inconvenience to injured person in such cases.

Section 124 A: Compensation on account of untoward incident

Deals with compensation payable in case of untoward incidents, provided that no compensation shall be payable under this section by the railways if the passenger dies or suffers injury due to.

- Suicide or attempt to suicide by him / her
- Self inflicted injury
- His / Her own criminal act
- Any act committed by the passenger in a state of intoxication or insanity
- Any natural cause or disease or medical or surgical treatment unless such treatment becomes necessary due to injury caused by the said untoward incident.

Explanation: For the purpose of this section, “passenger” includes

- A railway servant on duty
- A person who has purchased a valid ticket for traveling, by a train carrying passengers on any date or valid platform ticket and becomes a victim of an untoward incident.

Exgratia is as follows.

<i>Untoward incident</i>	<i>Amount</i>
Death	Rs.15,000/-
Grievous injury	Rs.5,000/-
Simple injury	Rs.500 /-

The rate of ex-gratia in case of grievously injured passengers who are hospitalized in case of untoward incident is as follows

	<i>Rate of ex-gratia</i>
Upto 30 days of hospitalization	Rs. 5000/- (Rs. Five thousand)
Upto further six months of hospitalization.	Rs. 1000/- (Rs. One thousand) per week or part thereof the period for indoor treatment.
Upto further five months of hospitalization	Rs.500 (Rs. Five hundred) per week or part thereof the period for indoor treatment.

Section 125: Application for compensation

This section lists out the persons who can make an application for compensation and the time within which such application can be made. Application can be made to the concerned claims.

- By the person who sustained the injury or suffered loss or
- By any agent duly authorized by such person on his behalf or
- Where such person is a minor by his guardian or
- Where death has resulted from the accident or the untoward incident by any dependent of the deceased or

- Where such a dependent is a minor by his guardian.

Section 126: Interim relief by Railway Administration:

When a person wants interim relief as per section 126, he may apply to railway administration, which may pay interim relief as per case, which may not be more than the amount of compensation payable by *Railway Claims Tribunal* after taking into account of the interim relief.

Section 127: Determination of compensation in respect of any injury or loss of goods.

Section 128: Saving as to certain rights.

Section 129: Power to make rules in respect of matters in this chapter

PASSENGER AMENITIES

Indian Railways are a century and a half old. During these 150 years of glorious service, Indian Railways has played a vital role in the country's need for large scale of movement of traffic – both freight and passengers. The Indian Railways are contributing a lot in the economic growth of the country as well as promoting national integration.

Indian Railways serve as the principle mode of passenger transport in the country carrying the highest volume of passenger traffic. With the quickening pace of modernization now sweeping the country, the Railway traveler expect much more from the Railways than he did in the past. To fulfill the increased expectation of the passengers, it is necessary that sufficient passenger amenities at stations and on trains have to be provided.

'150th year of Indian Railways has been declared as passenger's amenities year'. Every year, general steps relating to safety, security, punctuality and cleanliness will be taken so that the customers would derive greater satisfaction from the Railways.

The allocation under the plan head 'Passenger and other users amenity' was to tune of Rs.1100 crores for the year 2012-13. In order to provide upgraded passenger amenities at stations, 977 stations have so far been selected as "ADARSH" stations. Some of the thrust areas identified for them are as follows.

- Provision of all India train enquiry system.
- Conversion of stalls into modular stalls and provision of automatic vending machines
- Improvement in circulating areas.
- Improvement in waiting halls, booking offices and other infrastructural facilities / amenities.

Special attention is paid by Indian Railways with regard to

- Cleanliness at stations and trains
- Customer's satisfaction and care
- Catering and vending services
- Safety, security and punctuality
- Issue of unreserved tickets through UTS

- Passenger reservation system
- Provision of minimum essential passenger amenities at stations

Indian Railways have initiated training for front line staff to help them for dealing with the rail customers in a better manner. The program aims at inculcating a value system among them and to make them helpful to the rail users. The program would also help to increase the performance level of the employees by sensitizing them to the need of the customers, thereby solving their problems more effectively and in a positive manner.

Categorization of stations:

- Stations have been categorized into seven categories A1, A, B, C, D, E and F depending upon the earnings which is an indicator of passenger traffic.
- All suburban stations have been included in Category 'C' in order to accord high priority in view of a large passenger using them.
- The categorization shall be reviewed every 5 years. The next review will be carried in the financial year 2017-18 based on the earning of 2016-17.
- Annual passenger earnings: This is an important parameter for deciding the category of a station. It consists of earnings from both reserved and unreserved passengers. Data in respect of reserved passengers should be obtained from PRS and should be included in the station earnings.

S.No	Category	Criteria
1	'A1'	Non suburban stations with annual passenger earnings of more than Rs.60 crores.
2	'A'	Non suburban stations with an annual passenger earnings of Rs.8 crores and upto Rs.60 crores.
3	'B'	Non suburban stations with annual passenger earnings between Rs.4 crores and Rs.8 crores. Stations of tourist importance or an important junction station as decided by GM
4	'C'	All suburban stations
5	'D'	Non suburban stations with an annual passenger earnings between Rs.60 lakhs and Rs.4 crores
6	'E'	Non suburban stations with annual passenger earnings less than 60 lakhs.
7	'F'	All halt stations

Minimum Essential Amenities (MEA):

- When a station is constructed certain minimum amenities should be provided at each category of station. These were earlier termed as basic amenities / infrastructural facilities and now are called 'Minimum essential amenities'.
- Booking Facilities, Drinking Water (Piped / Hand Pump), Waiting Hall / Shed, Seating arrangements, Platform (Shelter/ Shady Trees), Urinals, Latrines, Lighting, Fans, Clock, Time Table Display etc, are the MEA

Recommended Amenities:

Once the essential amenities are provided at a station, further augmentation of these amenities as per norms will be known as recommended amenities. These norms are recommendatory.

Desirable amenities:

Desirable amenities are considered to improve customer satisfaction and interface process at the station. The quantum of these amenities would depend upon the category of the station. It should be noted that provision of desirable amenities need not wait for complete provision of recommended amenities. The amenities out of the list given should be provided based on the need and relative importance of the station.

Retiring Rooms, Waiting Rooms (With bathing facilities), Cloak Room, Enquiry Counter, PA System / Computer based announcement, Public Phone Booth, Parking / Circulating Area, Automatic Vending Machines, Pay & Use Toilets , ATM, Bookstalls etc are some of the Desirable amenities

Other important aspects:

- All toilets should be gradually converted into pay and use system
- All the signage should be standardized
- All stalls should be made modular and reduced in size
- Efforts should be made to make the stations cooking free and reduce the number of trolleys
- Ban-Marries should be provided at A1,A , B & C class stations
- The number of trolleys and catering stalls under the covered shed should be reduced to a minimum
- In a circulating area, proper traffic movement flow plan should be made. A green patch should also be developed.
- Automatic vending machines should be encouraged to replace existing vending stalls
- Enquiry and booking offices should be specially brightened up at all the stations
- The illumination of the station should be improved

Amenities for Physically challenged persons:

- Provision of standard ramp with railing for barrier free entry.
- Earmarking at least 2 parking lots for vehicles used by disabled persons.
- Provision of non-slippery walkway from parking lots to main station building.
- Provision of signage of appropriate visibility.
- Provision of at least one drinking water tap suitable for use by a disabled person.
- Provision of at least one toilet on the ground floor.
- "May I Help You" booth.
- Provision of facility for inter-platform transfer.
- Engraving on edges of platforms.

Maintenance of passenger amenities:

- It is important to maintain the amenities provided at all stations in working condition at all times. Hygiene and cleanliness should be an important activity for day to day monitoring.

- provide adequate imprest cash with station masters of stations where railway maintenance staff is not available to enable them to organise expeditious repairs of small items of passenger amenities such as hand pumps, taps, water trolleys, clock, fans etc.

RULES FRAMED ON PROHIBITION OF ACTIVITIES AFFECTING CLEANLINESS ANDHYGIENE IN RAILWAY PREMISES.

Persons Contravening Rules to be Punished with a Fine up to Rs. 500/-

The Ministry of Railways has issued a notification containing rules on prohibition of activities affecting cleanliness and hygiene in the Railway premises along with penalties for contravention of these rules. The Indian Railways (Penalties for activities affecting cleanliness at Railway premises) Rules 2012 have been notified in the Extraordinary Gazette of India, Part II, Section 3, and Sub-section (i) vide Gazette Notification no. GSR 846(E) dt. 26.11.2012.

Under these notified rules, no person shall

- (i) throw or deposit litter in any occupied or unoccupied Railway premises or the carriage except in authorised places; penalty upto Rs.200/-
- (ii) cook, bathe, spit, urinate, defecate, feed animal or birds, repair or wash vehicles, washing utensils or clothes or any other objects or keep any type of storage in any Railway premises except in such facilities or conveniences specifically provided for any of these purposes; penalty upto Rs.300/-
- (iii) paste or put up any poster or write or draw anything or matter in any compartment or carriage of the Railway or any premises thereof, without any lawful authority; penalty upto Rs.500/-
- (iv) Indulge in defacing Railway property. Penalty upto Rs.500/-

Authorised Vendors/hawkers will make necessary arrangement to keep the container or waste basket for collecting litter and proper disposal of its contents.

Whosoever contravenes any of the provisions of these rules or fails to comply with such provisions shall be punished with a fine which shall not exceed five hundred rupees.

The officials authorised to collect fine mentioned in these rules are:

- (i) The Station Master or Station Manager;
- (ii) An officer not below the rank of 'Ticket Collector of the Commercial Department or an officer of equivalent rank of the Operating Department and
- (iii) Any other official(s) authorised by the Railway Administration for the purpose of implementing these rules.

These rules have been made by the Central Government in exercise of the powers conferred by Clause (g) of sub-section(2) and sub-section(3) of Section 60 read with Section 198 of the Railways Act, 1989 (24 of 1989).

PREFERENTIAL TRAFFIC ORDER

1. No undue preference should be given to any individual or commodity by Railways in allotment of wagons as per section 70 of the Railways Act 1989,
2. But as per section 71 of Railway Act 1989 powers are given to Central Government to give preference for the moment of certain commodities in the interest of nation.
3. Railway Administration shall give priority / preference mentioned in the order.
4. PTO is current or valid for one year, but can be extended from time to time.
5. All the commodities are grouped into 4 priorities, namely A, B, C and D.

Priority 'A':

Military Traffic, when sponsored by MILRAIL and approved by Railway Board.

Priority 'B':

Goods for emergency relief work for victims of natural calamities, like floods, drought, earth-quake etc. when sponsored by an officer not below the rank of Deputy Secretary of Central / State Government or a non-official organization accepted by the originating Zonal Railway or Railway Board.

Food grains and levy sugar for Public Distribution System or other welfare schemes sponsored by FCI and approved by Zonal Railways / Railway Board

Priority 'C':

Coal , Non-refined Edible Salt , Common Salt , Raw Material to Steel plants, Fertilizers and POL

Priority 'D': All traffic not included in priority 'A' to 'C'

General instructions:

6. Traffic will have preference over other traffic within the same class of priority in the following order:
 - Traffic covered by contractual obligation and / or guaranteed under specific schemes like Wagon Investment Scheme (WIS), Freight Forwarder Scheme (FFS), and Terminal Incentive – cum - Engine - on – Load Scheme (TIELS).
 - Traffic in rakes from a Siding / Goods Shed having round the clock working.
 - Traffic in rakes from a full rake handling siding having mechanized system of loading.
 - Traffic offered for distance of more than 700 Kms will have preference over other traffic within the same classification and priority.
 - Traffic offered in single point block rakes (including clubbed single point rakes) will be given preference over two point / multi point block rakes and mini rakes within the same class of priority.
7. COM is authorized to reserve and notify maximum upto 2 days (Two days) in a week for allotment of Rakes as per the oldest date of Registration (ODR) irrespective of the class of priority.

WAGON DEMAND REGISTRATION***Registration:***

1. Any person who desires of dispatching his goods by wagon should register his indent in wagon demand / priority register.
2. The following particulars should be shown in the wagon demand register.

- Date and time of registration, serial number, consignor's and consignee's name and address, station to, name of the commodity, type of wagon required, signature of the party or signature of the person registering the demand.
3. Wagon demand registration fee is collected for the wagons registered under different gauges as under:

Gauge	WDRF per wagon Rs.	WDRF per Standard rake Rs.
BG	500	15,000
MG	400	12,000
NG	300	1,500

4. Service Tax is collected on above WDRF
5. W.D.R.F. may be collected in cash or through credit note.
6. A separate money receipt in two portions will be issued with following particulars; name of the consignor, priority number, date of registration, station to, commodity, name of the person who is authorized to take refund, type of wagon indented.
7. After collecting the W.D.R.F., the indents are registered in priority registers maintained separately for wagon loads and train loads for each series and signature of the party is obtained.
8. Any number of indents can be accepted, except to quota points, where individual railways impose restrictions.
9. No indent should be accepted for destination which has been restricted "Until further advice"
10. Clubbing of commodities is permitted upto a maximum of 2 in a wagon.
11. A maximum of 12 RRs can be issued per wagon.
12. Rs. 300/- extra is collected for issue of every additional railway receipt issued per wagon.
13. These registers are kept open to public for inspection.

Exemptions from payment of WDRF:

- Kit wagons booked on kit passes issued to railway employees on retirement on transfer account
- Railway material consignments booked by railway officials
- Container traffic
- Military Traffic
- Platinum, Gold and Silver card holders

Forfeiture of wagon demand registration fee:

Wagon demand registration fee is forfeited under the following circumstances

- When wagon demand is cancelled after the physical supply of wagons.
- When wagon demand is cancelled within 10 days of registration.
- When loading is not commenced within the free time allowed for loading.
- When consignor has given in writing to detain the wagon and the loading is not commenced within 24 hours from the expiry of free time, indent is cancelled, WDRF is forfeited and demurrage charges levied without granting any free time.
- When consignor is not willing to pay freight charges as per existing railway tariff.
- An amount equal to WDRF will be collected from premier customers when they cancel their indents under any of the above conditions.
- When WDRF refund is not claimed within 3 years as per limitations Act..
- When a rake is supplied to an indenter at congested goods shed and he commences loading within the free time but does not complete the loading within twice the permissible free time, one subsequent pending indent of the said consignor will be cancelled along with forfeiture of WDRF. Similarly, if he does not

complete the loading within three times the permissible free time, another pending indent will be cancelled along with forfeiture of WDRF and so on.

Refund of wagon demand registration fee:

Station master is empowered to give refund of wagon demand registration fee when paid in cash and WDRF is refundable under the following circumstances.

- When wagon is booked and loaded.
- When supply of wagon is not made up to 10 days and the consignor wants to cancel his indent.
- When open wagon is supplied against an indent for covered wagon or vice versa and the consignor is not willing to load.
- When restrictions are imposed without any time limit.

Note:

1. On surrender of money receipt, refund is granted.
2. If money receipt is lost refund can be granted on execution of a stamped Indemnity Bond.
3. The amount can be adjusted towards the freight charges in case of paid traffic.
4. When WDRF is paid through credit note, refund will be granted by CCM

Change / Cancellation of Indents under special conditions:

Cancellation of indents will be dealt differently when Railway Board issues notice to withdraw transportation of particular business segment or a particular stream of traffic or even a specific commodity for any of the following reasons.

- Disruption of a particular section due to Force majeure conditions
- Closure of the section after due notification
- Closure of the originating goods shed after due notification
- Closure of the destination goods shed after due notification
- Phasing out or withdrawal of a particular type of rolling stock altogether for which indent had been placed

In cases where the originating station is affected, no change of indent will be permitted.

In all the above cases where destination station is affected except (iii), the consignor may be allowed to change the destination station of the indent to any other destination within Zonal Railways of initial destination station.

In case of phasing out or withdrawal of a particular type of rolling stock, the consignor may also be allowed to change the indent to another type of stock.

The above change may be permitted by the booking station only after the receipt of the confirmation from the zonal railway of the destination station.

Not more than one such change may be permitted.

If the consignor does not opt for change up to 30 days from the date of issuance of such notice, the indent shall be treated as cancelled on 31st day and the registration fee shall be refunded.

Change of commodity:

1. It is permitted by DCM if the commodity is within the same priority.
2. It is permitted only once

Supply of wagons or allotment of wagons:

1. Each demand of wagon registration is given a serial number in the order of priority.

2. Separate priority registers should be maintained for wagonload traffic and trainload traffic.
3. Allotment / loading orders are issued in accordance with the priority of registration as per preferential traffic order.
4. Stations should load wagons in accordance with the allotment / loading orders from the appropriate authority i.e. Sr.DOM.
5. The loading order given is called as Specific Loading Order (SLO).
6. At some stations, station masters are authorized to give loading orders in case of inward released wagons, which is called as 'back loading'.
7. The allotment or loading orders should be exhibited on the notice board of the station for the information of the public.
8. Before allotment of wagons, the registers of bans and restrictions should be verified to see whether the commodity is banned from booking or a particular route is closed for traffic.
9. All wagons allotted and supplied should be certified by TXR (Train Examination) staff.
10. If TXR is not available the wagons are jointly selected by the consignor and the station master after physical check.
11. Non-water tight wagons should not be supplied for goods damageable by wet.

COMPOSITION OF BLOCK RAKES

SI No.	Type of Wagon	Standard Rake	Minimum number of wagons
Open wagons			
1	BOXN, BOXNHS, BOXNHSMI, BOXNHA, BOXNEL, BOXNLW, BOXNMI	59	58*
2	BOXNHL	58	57
3	BOX	35	30
4	BOST	45	43
5	BKCX	32	30
6	BOY, BOYN, BOYEL	53	50
Hopper Wagons			
7	BOBR	53	50
8	BOBRN	59	56
9	BOB, BOBC, BOBX, BOXK, BOBS	40	40
10	BOBSN, BOBSNMI, BOBY, BOBYN	53	48**
Flat Wagons			
11	BRN / BRNA / BRNAHS / BFNS	43	41
12	BRH / BRS	35	30
13	BFR / BFK / BFKI	35	30
14	BFKHN	40	35
Covered Wagons			
15	BCN, BCXN*****	41	39
16	BCNA, BCNAHS	42	40
17	BCNHL	58	57
18	BCX	40	35
19	BCCN	30	29
20	NMG	25	24
21	BCFC	59	58
Tank Wagons			

22	BTPN (Except Veg Oil)	49	47
23	BTPN (Veg Oil)	50	48
24	BTPH/ BTFLN	48	46
25	BTAP	51	49
26	BTCS	59	57
27	BTAL	35	32
28	BCCW (Bulk Cement)	58	56
29	BTPGLN / BTPG	32	30
30	Tank Wagon (4 wheeler) @	72	68
31	Tank Wagons TG type (4 wheeler)	64	62
Mixed Rakes (BG)			
32	BOXN & BOYN	55	55 (minimum 15 of each type)
33	BOX & BFR / BRH***	35	30 (minimum 10 of each type)
34	BOXN + BRN / BRNA / BRNAHS / BOST / BFNS****	45	40 (min. 10 of each type & max. 20 of BOXN)
35	BOST + BRN / BRNA / BRNAHS / BFNS*****	43	41 (min.10 of each type)
36	BCN / BCNA / BCNAHS / BCXN*****	41	38
37	BTPN / BTCS	55	BTPN wagons will not be more than 25
Meter Gauge Wagons			
38	MG to MG		34(in terms of 4 wheeler)
39	MG to BG		90 (in terms of 4 wheelers)

* *BOXN in Kulem-Castle Rock section 54 wagons permitted for trainload class rate.*

** *The minimum number of wagons for Dalli Rajhara-Bhilai section will be 45 wagons.*

*** *BFR and BRH wagons may be treated as one type and BOX as another type for reckoning the minimum 10 number of each type.*

**** *BRN, BRNA, BRNAHS, BFNS and BOST may be treated as one type and BOXN as other type for reckoning the minimum 10 number for each type.*

***** *BRN, BRNA, BRNAHS and BFNS may be treated as one type and BOST as other type for reckoning the minimum 10 number for each type*

***** *Indents for Block Rake of BCN/BCNA/BCNAHS/BCHN will be accepted for 42 wagons (8 wheelers) against which empty rakes of any type of these types or a combination of these types of wagons will be supplied in terms of the standard rake size of these wagons.*

@ *For TNPM siding of IOC, standard rake size of tank wagons (4 wheeler) is 65 wagons and minimum number of wagons required to be loaded for availing trainload rate benefit is 64 wagons.*

PCC OF THE WAGONS

1. The goods tariff indicates the chargeable weight as PCC for the different main commodity heads..
2. All the commodities are charged at different weight conditions in three routes
Excepted CC +6, Universalized CC+6 and CC+8.
3. The current PCC of various types of wagons is as follows.

S. No	Type of Wagon	Excepted CC+ 6	Universalized CC + 6	CC + 8 Route		LT
				For ores, Rock phosphate, gypsum, limestone & dolomite, stones, clinker, cement, all types of coal, slag, DAP & NPK fertilizers	All other Commodities	
OPEN WAGONS						
BOXN		64	66	68	66	1
BOXNCR						
BOXNHS						
BOXNHSMI						
BOXNMI						
BOXNHL		66	68# 66 (for all other commodities)	70	66	1
BOXNHA		63	65	67	65	1
BOXNLW, BOXNLWMI		66	68# 66(for all other commodities)	70 (for ores, gypsum, limestone, dolomite, stones & clinker) 68 (for cement, all types of coal, slag.) 66 (for DAP & NPK fertilizers)	66	1
BOXNR		65	67# 65 (for all other commodities)	69	65	1
BOXNEL		64	65	67	65	1
BOX, BOXT		59	60	60	60	1
BOXC,BOXR		60	60	60	60	1
BOY, BOYEL		66	67	69	69	1
BOYN		66	68	70	70	1
BOI		63	63	63	63	1
BOST		61	63	63	63	1
HOPPER						

STATION MASTER AS11(FEB14)

BOBR	61	62	64	64	1
BOBRN	61	63	65	65	1
BOBS	60	62	64	64	1
BOBSN, BOBSNMI	56	58	60	60	1
BOBX	61	63	65	65	1
BOB	61	62	62	62	1
BOBC	45	45	45	45	1
BOBY	59	60	60	60	1
BOBYN	61	62	62	62	1
FLAT					
BRN	66	66	66	66	1
BRNA	63	63	63	63	1
BRNAHS	63	63	63	63	1
BFNS	60	61	62	62	1
BRH	62	62	62	62	1
BRHC, BRHT	61	62	62	62	1
BRS, BRST	61	62	62	62	1
BFR	44	44	44	44	1
COVERED					
BCN	59	61	63	61	1
BCNA, BCNAHS	62	64	66	64	1
BCX	58	58	58	58	1
BCXN	60	61	61	61	1
BCNHL	66# 62 (for Rice) 58 (for all other commodities)	68# 62 (for Rice) 58 (for all other commodities)	70 68 (for sugar, salt & MOP) 62 (for Rice)	58	0
BCCW	64	66	68	68	0
BCFC	65	66	68	68	1

For ores, gypsum, limestone & dolomite, stones, clinker, cement, all types of coal, slag, DAP, NPK, Sugar, Salt, Rock phosphate and MOP

- The PCC for tank wagon is as arrived from the calibration chart issued by Central Tank Wagon calibration committee. If chart is not issued then chargeable weight will be the stenciled CC.

Official Language Policy: Constitutional Provision.

On 14th September, 1949 Hindi Was accepted as Official Language of the Union by the Constitutional Assembly to include in the Constitution of India which was promulgated on 26 th January, 1950. We celebrate Hindi Day (Hindi Divas) on 14 th September, every year. Provisions regarding Official Language are contained in Article 120 (1), 210(1) and 343 to 351 of the constitution.

- Article 120 :- Business in Parliament shall be transacted in Hindi or in English
- Article 210 :- Business in the Legislature of a State shall be transacted in the Official Language or Languages of the State or in Hindi or in English.
- Article 343(1):- The Official Language of the Union shall be Hindi in Devanagari script. The form of numerals to be used for the official purposes of the union shall be the international form of Indian numerals.
- Article 343(2) - For a period of 15 years from the commencement of this constitution, the English Language shall continue to be used for all official puposes of the Unioin for which it was being used immediately before such commencement.
- Article 343(3) - Parliament may by law provide for the use of the English language after 14-15 years for such purposes as may be specified in the law.
- Article 344 - The president shall constitute a commission after five years from the commencement of the constitution and thereafter ten years from such commencement.

The duty of the commission shall be to make recommendations to the president as to:-

- (a) the progressive use of the Hindi Language for the Official purposes of the Union.
- (b) restrictions on the use of English Language for all or any of the Official purposes of the Union.
- (1) the official language for communication between Union and State or between One State and another.

There shall be a constitutional committee consisting of thirty members of whom twenty shall be from Lok Sabha and ten from Rajya Sabha. It shall be the duty of the Parliamentary Committee to examine the recommendations of the commission so constituted.

- Article 345 - The Legislature of States by law can adopt one or more languages as Official Language or Languages of the State.
- Article 346 - Official Language for communication between one state & the Union.
- Article 347 - Provides for special provision relating to language spoken by a Section of the population of a state.
- Article 348 - deals with languages to be used in the Supreme Court and in the High Courts and Acts, bills etc.The authoritative of bills Act, ordinances, orders regulations and bye-laws issued under the constitution shall be in English language.
- Article 349 - No bill to be introduced for amendment of the language unless president gives sanction after considering the recommendation of the commission and the committee constituted for the purpose.
- Article 350 - deals with language to be used in representation for redressal of grievances.
- Article 351 - deals with Directive for development of Hindi language to promote the spread of the Hindi language to develop it so that it may serve as a medium of expression for the composite culture of India to secure its

enrichment by assimilating without interfering with its the genius forms, style and expressions used in Hindustani and in the other languages of India.

(VIII) Eight Schedule Languages

1. Assamese	2. Oriya	3. Urdu
4. Kannada	5. Kashmiri	6. Gujarati
7. Tamil	8. Telugu	9. Punjabi
10. Bengali	11. Marathi	12. Malayalam
13. Sanskrit	14. Sindhi	15. Hindi
16. Manipuri	17. Konkani	18. Nepali
19. Bodo	20. Maithili	21. Dogri
22. Santhali		

THE OFFICIAL LANGUAGE ACT 1963 AMENDED IN 1967.

Section 3 (1) deals with the continuation of English language in addition to Hindi for Official purposes of the union and for use in parliament.

Section 3(2) deal with the provision of Hindi or English language used for the purpose of communication between Ministry or Department or Office of Central Government and any corporation or company owned or controlled by Central Govt. Translation of such communication in Hindi or English shall be provided till such date as the staff concerned, Ministry, Department, Office or Corporation or Company have acquired working knowledge of Hindi.

Section 3(3) deals with the provision of both Hindi & English languages shall be used for Resolutions, General Orders, Rules, Notifications, Administrative or other reports or press communique, Contracts and agreements executed and licences, permits, notices and forms of tender issued by the offices.

Section 3 states that the Central Government may by notification in the official gazette make rules for carrying cut the purpose of this Act.

Resolution 1968-- Intensive & Comprehensive Programme should be prepared and implemented by the government of India for accelerating the spread and development of Hindi in collaboration with the State Government.

SALIENT FEATURES OF OFFICIAL LANGUAGES RULES 1976

In excercise of the powers conferred by section 8 of the Official Language Act, 1963, the Central Government has made the following rules. With a view to implement the Official Language Policy, regions namely "A B C" have been constituted in the country.

A region- Bihar, Haryana, Himachal Pradesh, Madhya Pradesh, Rajasthan and Uttar Pradesh and Delhi & Andaman Nicobar.(Uttranchal, Jharkhand & Chattisgarh.)

B region- Gujarat, Maharashtra, Punjab & Union Territory of Chandigarh, Dadar & Nagar Haveli and Daman & dieu

C region- States and Union Territories other than those referred to in A& B regions.

Rule 1 deals with the title and Rule 2 regarding the definitions of words such as Act "Employee", Notified office, Proficiency etc., used in the rules.

3. Communications to states etc., other than Central Government offices. Communications from Central Government Offices to states and Union territories in A&B region be normally in Hindi. For states, Union territories in the region "C" shall be in English (Office includes individual also).

4. Communication between Central Government offices situated in "A" shall be in Hindi and for offices situated in "B" & "C" may be in Hindi and English or in such proportion determined from time to time.
5. Replies to communications received in Hindi - Replies to communications in Hindi shall be in Hindi.
6. Use of both Hindi and English for all documents referred in Section 3(3) of 1963 Act and it shall be responsibility of the persons signing such documents to ensure that such documents are made executed or issued both in Hindi and in English.
7. Applications, Representations- Employee may submit an application, appeal or representation in Hindi or in English.
8. Noting-- An employee may record a note or minute on a file in Hindi or in English without being himself required to furnish a translation there of in the other language.
9. Proficiency in Hindi--Matriculation or any equivalent or higher examination with Hindi as the medium of instruction or Hindi as an elective subject in degree.
10. Working knowledge of Hindi- Matric with Hindi as one of the subject i.e., 1st language or pragra pass or declaring himself having working knowledge in Hindi.
11. All Manuals, codes, other procedural literature Article of Stationary, Forms & Headings of registers, all name plates, sign boards letter heads and other items of Stationery written, printed or inscribed for use shall be in Hindi & English.
12. Responsibility for compliance--
 - (1) to ensure implementation of the provision of the Act.
 - (2) to devise suitable and effective check points.
 - (3) to issue of Directions from time to time.

VARIOUS AWARD SCHEMES FOR USE OF RAJBHASHA HINDI

Railway Board's Individual Cash Award Scheme:-

Every year 6 to 8 Officers/Employees are awarded for doing commendable & maximum work in Hindi by Railway Board at All India Hindi Week Celebrations. These awards are given by the Railway Minister.

Every award winner gets Rs.1,500/- in cash and a certificate.

General Manager's Individual Cash Award Scheme:-

Every year on the eve of South Central Railway's Hindi Saptah Celebrations 10 Officers / 30 Employees are awarded for doing commendable and maximum official work in Hindi. These awards are given by the General Manager.

Officers	--	1,200/-
Staff	--	1,000/-

Home Ministry's Award Scheme:-

The particulars of the scheme are as follows:-

1. All officers and employees working in South Central Railway can participate in the competition under this scheme.
2. Officer / Employees working in regions:

"A"& "B" for writing minimum 20,000 words in Hindi per year.	"C" for writing minimum 10,000 words in Hindi per year.

Awards to be given:-

1. Two first prizes	:	Rs.1600/-each
2. Three Second prizes	:	Rs.800/-each
3. Five third prizes	:	Rs.600/-each

Note:- Under this scheme minimum 10 participants should be there from any Unit/Section/Office.

Collective Cash Award Scheme:-

Under this scheme 3 departments are awarded for doing commendable and maximum work in Hindi.

Particulars of the award:-

- First prize : 9,000/- (for 6 employees Rs.1500/- for each employee)
 Second prize : 6,000/- (for 5 employees Rs.1200/- for each employee)
 Third prize : 4,000/- (for 5 employees Rs.800/- for each employee)

Award For writing original Hindi books on Technical Subjects.**1. Lalbahadur shastri Award Scheme**

Every year following 3 cash awards are distributed by Railway Board to such of genius Railwaymen who write original Hindi books on technical subjects:-

- First prize : Rs.15,000/-
 Second prizes : Rs.7,000/- each
 Third prizes : Rs.3,300/- each

Three consolation prizes: Rs.2,500/-each

Apart from this copies of the awarded books are purchased for the Railway Hindi libraries.

1

Cash award scheme for writing story, Novel and poetry in Hindi:-**1. Premchand Award Scheme:-**

Every year premchand awards are given to the best story books or novels in Hindi.

- First prize: Rs. 15,000/-
 Second prize Rs. 7,000/-
 Third prize: Rs. 3,300/-

2. Maithilisharan Gupta Award:-

Every year Maithilisharan Gupta award are given for best poetry books in Hindi.

- First prize: Rs. 15,000/-
 Second prize Rs. 7,000/-
 Third prize: Rs. 3,300/-

Indira Gandhi Rajbhasha Award Scheme:-

Every year following 3 awards are distributed to the writers of the best Hindi books on Official working:-

- First prize: Rs.40,000/-
 Second prize Rs.30,000/-
 Third prize: Rs.20,000/-
 Consolation Prize- Rs.10,000/-

Rajiv Gandhi Rajbhasha Award Scheme:-

Every year following awards are distributed to the writers of the best Hindi books on Gyan Vigyan(Technical):-

- First prize: Rs.2 lakhs/-
 Second prize Rs.1.25 lakhs/-
 Third prize: Rs.75,000/-
 Consolation Prize- Rs.10,000/-

Award Scheme for writing Original books on subjects related to economics in Hindi :-

- First prize Rs 50,000/-
 Second prize Rs 40,000/-
 Third prize Rs 30,000/-

Award Scheme for writing Original books in Hindi in the field of new and renewable sources of Energy :-

- First prize Rs 50,000/-
 Second prize Rs 30,000/-
 Third prize Rs 20,000/-

TRAINING:-**Incentives regarding Hindi / Hindi Typing / Hindi Stenography Training:-**

(Only for those officers / employees who do not possess working knowledge of Hindi)

The Officers / employees of group "A","B" and "C" who pass the above examinations conducted under the Hindi teaching scheme with creditable marks are awarded in the following manner.

Lumpsum award:-

On passing prabodh / Praveen / Pragya /Hindi Typing/Stenography examination under the Hindi Teaching Scheme by own efforts the officers and employees are awarded in the following way:-

Prabodh: Rs.1600/-, Praveen: Rs.1500/-, Pragya2400/-,
Hindi Typing Rs1600/-, Hindi Stenography 3000/-

Hindi Examination of voluntray Hindi organisations, which are recognised by Government of india as equivalent to Matric or higher Rs.600/-

Cash Award:-

Having Secured	Prabodh	Praven	Pragya

70% Or More marks	1600/-	1800/-	2400/-

60% Or More marks	800/-	1200/-	1600/-

55% Or More marks	400/-	600/-	800/-

in addition personal pay equal in amount to one increment for 12 months.

For Passing Hindi Typing and Stenography Examinations:-

Typing	Stenography	Amount
97%	95% and above marks	2400/-Rs
95%	92% Or More marks	1600/-Rs
90%	88% Or More marks	800/-Rs

Typewriting:-

In addition personal pay equal in amount to one increment for 12 months.

Stenography:-

In addition, Stenographers whose mother tongue is not Hindi are given personal pay equal in amount to two increments for the first 12 months and one for the next 12 months on passing Hindi Stenography examination.

Hindi Essay, Elocution, Noting and Drafting Competitions:-

Hindi Essay, Elocution, Noting and Drafting Competitions are conducted at Zonal & Railway Board level and the Hindi Typewriting competition is conducted only at Zonal level. All these competitions are conducted once in a year.

Awards are given in the following manner:-

For Hindi, Essay, Elocution and Noting and Drafting Competition:-

Prizes	Zonal level	Rly Board level
First prizes	Rs 2000/-	Rs 3000/-
Second prizes	Rs 1600/-	Rs 2500/-
Third prizes	Rs 1200/-	Rs 2000/-
Consolation Prize	Rs.800/- (3 Prizes)	Rs 1500/- (5 Prizes)

These competitions are held in July & August

For Hindi Typewriting Competition-Zonal Level:-

First prize Rs 300/-
 Second prize Rs 200/-
 Third prize Rs 100/-

3

Railway Minister Hindi Essay Competition:-

For writing best essays pertaining to Railway subject following awards are distributed:-

First prizes Rs 6000/-
 Second prizes Rs 4000/-
 Competition is held in January

Railway Yatra vritant Award Scheme :

For writing a best report / narrative on Railway journey experience, following awards are distributed:-

First prize Rs 4000/-
 Second prize Rs 3000/-
 Third prize Rs 2000/-

Incentive allowance to Typists and Stenographers:-

English Typists and English Stenographers are allowed on certain conditions incentive allowance of Rs.80/- and Rs.120/- per month respectively for doing Hindi Typing and Hindi Stenography work.

Incentive Scheme for Officers giving dictation in Hindi:-

All the officers who have been provided Stenographic assistance and who generally give dictation, can participate in this scheme.

Hindi Speaking officers for giving dictation in Hindi for a minimum of 20,000 words per calendar year. Non Hindi speaking officers for giving dictation in Hindi for a minimum of 10,000 words per calendar year.

Amount of award Rs.1000/- for each officer. Two awards for each office.

Note:- The Officers / Employees working in Hindi Organisation will not be eligible to participate in any of the above competitions.

ESTABLISHMENT MANNUAL**Leave Rules****General conditions**

1. Leave cannot be claimed by the employee as a matter of right. The right to grant or refuse leave vests in the authority competent to sanction leave.
2. The leave usually commences on the day charge is handed over and ends on the day the charge is taken over again.
3. Leave sanctioning authority cannot alter the kind of leave due and applied for except at the written request of the employee.
4. Leave already availed maybe converted into another kind of leave on employee's request retrospectively but not after retirement.
5. Leave cannot be sanctioned for more than 5 years.
6. Combination of holidays preceding or in continuation of leave is permitted. In case of medical certificate of sickness, the holidays will be part of sickness leave.
7. The employee is not permitted to take up any employment during the period of leave.
8. Employee should take permission to leave headquarters specially for private visits abroad. When permission to visit abroad is sought, information relating to the proposed and previous private visits should be furnished in the prescribed proforma.

Leave on Average Pay (LAP)

- 30 days LAP in a calendar year.
 - All Railway employees permanent or temporary are eligible for LAP(Rules for school staff are seperate).
 - Shall be credited in advance in two instalments of 15 days each on January 1st and July 1st of every calendar year.
 - Shall be carried forward subject to the maximum limit of 300 days.
 - If the credit is between 285-300 days, the new credit of 15 days may be kept seperate to first adjust LAP that the employee take during ensuing half year and the balance, if any, may be credited atthe close of 6 months period keeping the maximum to 300.
- The maximum that may be granted at a time shall be 180 days.
- 1/10 of the Extraordinary Leave availed during the previous half year is debited to the leave account.
 - New entrants will be given credit of two and a half days per month of the half year in which they join. Similar credit athe rate 2 and a half per month is given in case of death/retirement.

Leave on half average pay(LHAP)

- All Railway employees permanent or temporary other than those serving in a railway school are eligible for LHAP.
- 20 days LHAP in a calendar year.
- No restriction on accumulation.
- May be granted on medical certificate or on private affairs.
- It may be commuted by surrendering 2 days of LHAP for one day of LAP without any limit in case of medical grounds, and upto 180 days in other cases. However if a Railway employee does not return to duty after commuted LHAP is over it shall be reconverted to LHAP.

- LHAP that can be availed of in one spell shall be limited to 24 months (whether combined with any other kind of leave or not).
- Shall be credited in advance in two instalments of 10 days each on January 1st and July 1st of every calendar year(except school staff).
- The leave shall be credited to the leave account at the rate of 5/3 days for each Completed Calendar Month of service While affording credit of half pay leave fraction of a day may be rounded off to the nearest day.

Leave Not Due(LND)

- Granted to a permanent employee when no other leave is due and there are reasonable prospects of his coming back to duty.
- Sanctioned to the extent of LAP he is likely to earn.
- Maximum can be 360 days in the career of the employee with the condition that not more than 90 at a time and 180 days maximum for other than medical grounds.
- Temporary employee may be sanctioned LND on medical certificate if the post is likely to last till he returns and he has one year service.

Child Care Leave(CCL)

- For women employees having minor children(below 18 years)
- If child is disabled (40% disability)upto 22 years age. Certificate regarding disability has to be produced along with certification by the employee that the child is dependant on her.
- Maximum for a period of 2 years (730 days) during the entire service.
- It may be allowed for third year as Leave not Due without production of medical certificate.
- For taking care upto 2 children.
- Admissible for 2 eldest surviving children only.
- Leave salary will be equal to the pay drawn before going on leave.
- CCL is to be treated like LAP and sanctioned as such.
- Not to be debited against leave account.
- It may be combined with leave of the kind due and admissible.
- With effect from 01.09.2008
- Cannot be demanded as a matter of right.
- May be availed in more than one spell.
- May not be granted for more than 3 spells in a calendar year.
- If a spell spills over to next year it may be treated as one spell in the year in which CCL commences.
- It may not be granted for less than 15 days.
- Should not ordinarily be granted during probation period except in extreme situations where the leave sanctioning authority is fully satisfied of the need of granting CCL. In any case it should be ensured that the CCL sanctioned during probationary period is kept minimum.
- The leave is to be treated like earned leave and sanctioned as such.
- Saturdays, Sundays and Gazetted holidays will also count like in earned leave.

Study Leave(SL)

- Granted to a Railway employee for:
1. Higher studies or undergoing training in professional and technical subjects having a direct and close connection with the sphere of his duties.

2. A study capable of widening one's mind in manner likely to improve his abilities as a Railway employee.
 3. Studies connected with the framework or background of public administration.
 4. Advantageous to the Government from the point of view of public interest and related to his duties of Railway employee.
- Not granted for academic/literary pursuits.
 - Should be liberally granted particularly to scientific, technical and administrative staff.
 - For study outside India, permission of Finance Ministry should be obtained.

Period of leave

- Max period of 24 months in the entire service of a Railway employee and upto 12 months at a time.
- Combined with other type of leave with leave salary (LAP/LHAP) excluding extraordinary leave(ExL) leave can be permitted upto 36 months for a Railway employee doing PhD.

Salary

- For study in India equal to the pay immediately before the employee proceeds on study leave plus DA plus HRA .
- Outside India pay plus DA plus HRA and study allowance at the current prescribed rate per day.
- Any scholarship received has to be adjusted against the leave salary.

Conditions

- The employee has to execute a bond specifying that he won't resign / retire for 3 years after the expiry of leave failing which he will have to refund all the leave salary and other expenses incurred by Railways.
- Not granted to those with less than 5 years of service and due to retire within 3 years after the expiry of leave.

Service/ Seniority

- Period will count as service for promotion.
- The period spent on study leave shall be counted for earning both Leave on Average Pay (LAP) and Leave on Half Average Pay (LHAP)*.

Sanctioning authority

- Gazetted Officers – Railway Board
- Non-Gazetted Officers – GM

Casual Leave(CL)



	Upto 31.12.1997	From 01.01.1998
Normal	12 per year	8 per year
Those not enjoying Gazetted holidays	15 per year	10 per year
NF Railway employees	5 days extra	

- Can be combined with Special Casual Leave(SCL) and with no other leave.
- Can be granted for half day also.
- Can be granted to any extend due at a time.
- Sundays, Holidays, Restricted holidays, can be prefixed/suffixed to CL.
- Can be taken even while on tour.

Child Adoption Leave

- Granted to a female Railway employee becoming an adoptive mother with less than 2 surviving children.
- Granted for 180 days on adoption of a child upto one year of age on the lines of Maternity Leave admissible.
- Leave salary equal to pay drawn just before proceeding on leave.
- Maybe combined with any other type of leave as in Maternity Leave.
- In continuation of Child Adoption Leave adoptive mother can be sanctioned leave of the kind due and admissible (including Leave Not Due and Commuted Leave without Medical certificate not exceeding 60 days) for a period upto one year reduced by the age of adoptive child on date of legal adoption without taking into account period of Child Adoption Leave.
- *Illustration:*

Age of adoptive child on date of legal adoption	CAL
<i>Less than 1 month</i>	<i>Upto 1 year</i>
<i>6 month – Less than 9 months</i>	<i>Upto 6 month</i>

- Not debited against leave account.

Extraordinary Leave (ExL)

- Granted to a Railway employee when (i) no other leave is due or (ii) the employee specifically applies for it.
- No Leave salary.
- Can be combined with other leaves.
- Any kind of leave may be converted to it or it may be converted to any other leave retrospectively by the competent authority.
- Not debited to Leave account.
- Not exceeding 5 years at a stretch for permanent and 3 months for temporary(6 months with Medical certificate) Railway employees .
- Temporary Railway employees suffering from Leprosy, TB, Cancer may be granted Upto 18 months.

Hospital Leave

- Sanctioned to Group C and D Railway employees due to risks incurred in the course of official duties.
- Based on Medical Certificate of Railway Doctor.
- Sanctioned for such periods as necessary.
- For first 120 days Leave salary will be as that on LAP and for remaining period as that on LHAP.
- Maybe combined with any other type of leave due and admissible provided that the total period does not exceed 28 month.

Maternity Leave(ML)

- It is a full pay leave not debited to any account.
- It is granted as under:

For confinement	180 days
Miscarriage/Abortion	45 days during service
Female Casual workers	4 weeks

- Temporary Railway employees may be granted Maternity Leave if their employment is likely to continue till they come back to service may be granted Maternity Leave on the basis of Medical Certificate.
- It may be combined with any other type of leave.
- Any leave (including LND) upto a maximum 2 years may be granted in continuation of ML if applied for without Medical Certificate.

Paternity Leave(PL)

- Granted to male Railway employees (including Apprentices) with less than 2 surviving children.
- Granted for 15 days.
- During the period of confinement of wife of a Railway employee . Can be availed in the period between 15 days prior and 6 months after the date delivery of the child.
- Can availed only in one spell.
- If not availed it will be lapsed.
- It is not to be debited against leave account.
- Maybe combined with any other type of leave as in Maternity Leave.
- Leave salary equal to pay drawn just before proceeding on leave.
- Paternity Leave may not normally be refused.
- May be granted to Casual Labour who has temporary status for 15 days.
- With effect from 22.07.2009 it can be sanctioned in case of valid adoption of a child below one year for 15 days. It can be availed within 6 months from the date of adoption.

Special Casual Leave

Category/Occasion	Days eligible
Sterilisation Operation - Male Railway employee	
Vasectomy Operation first occasssion	6 days
Vasectomy Operation second occasssion	6 days
Tubectomy operation of wife	7 days
Sterilisation Operation - Female Railway employee	
Tubectomy operation first occasssion	14 days
Tubectomy operation second occasssion	14 days
Insertion of IUCD	1 day
After medical termin ation of pregnancy undergoing Salpingectomy	14 days
Both Male and Female Railway employees – Period of hospitalisation for post-operation complications	
Male Railway Employee	7 days
Female Railway Employee	14 days
For recanalisation - 21 days of hospitalisation plus journey time.	
Attending Union and Federation meetings.	
For elections to Lok Sabha and Vidhan Sabha	

For RPF annual Day meet
Attending courts as juniors or assessors
Attending Hindi Examinations
Co-operative Society office bearers
Along with special passes for Kailash Mansarovar

Special Disability Leave

- Can be sanctioned upto 24 months(in one or more spells).
- For injury caused intentionally by someone in performance of official duties as a Railway employee.
- Injury must manifest within 3 months of its occurrence.
- Competent authority may condone this limit.
- Medical Certificate necessary.
- Can be combined with any other type of leave.
- Leave salary as on LAP for first 120 days, then as on LHAP.
- In case of those covered by Workmen Compensation Act Leave salary will be reduced to the extent of compensation payable.
- Counts for pension.
- Not debited to Leave account.

Special Disability Leave (Accidental)

- Sanctioned for a Railway employee injured accidentally in performance of official duties

HOER Rules (Hours of Employment and Period of Rest Rules 2005)

Definitins

- Full night : period between 10 pm and 6 am
- Long-on : a period of duty over 8/10/12 hours in case of Intensive/Continuous/Essentially Intermittent workers respectively.
- Roster : Document which shows the hours a Railway employee is expected to be on duty every day, the daily as well as weekly rest and break between spells of duty in a day.
- Short-off : A period of rest which is

- In case of Intensive workers less than 12 hours in a roster of six hours duty and less than 14 hours in a mixed roster of 6 and 8 hours duty.
- In case of Continuous workers less than 10 hours.
- In case of Essentially Intermittent workers less than 8 hours.

Authority to Classify

- Power to declare the employment of a Railway employee Intensive or Essentially Intermittent vests with Head of the Railway Administration which can be delegated to Chief Personnel Officer.
- During emergency situations it can be exercised by an Officer not below the rank of Senior Scale.
- A copy of every declaration of classification shall be sent to Regional Labour Commissioner and if it is made by an Officer (Sr Scale) a copy to be sent to Head of the Railway Administration and Chief Personnel Officer.

Appeals against Classification

- Any Railway employee aggrieved by a declaration of classification may prefer an appeal to Regional Labour Commissioner within 90 days of the date of declaration. RLC may after scrutiny of documents or fresh job analysis may order for a change in classification.
- Any Railway employee of Railway Administration aggrieved by a decision of Regional Labour Commissioner may prefer an appeal to the Secretary to the Government of India, Ministry of Labour before the expiry of 90 days from the date on which the decision of Regional Labour Commissioner is communicated.

Classification

1. Continuous : The employment of a Railway employee is said to be continuous except when it is excluded or has been declared to be Essentially Intermittent or Intensive.
2. Essentially Intermittent : The employment of a Railway employee is said to be Essentially Intermittent when it has been declared to be so by the prescribed authority on the grounds that daily hours of duty of the Railway employee normally include periods of inaction aggregating to 50% or more (including at least 1 such period of not less than 1 hour or 2 such periods of not less than half an hour each) in a tour of 12 hour duty (on the average over 72 consecutive hours) during which the Railway employee may be on duty, but is not called upon to display either physical activity or sustained attention.
3. Excluded : The employment of a Railway employee is said to be Excluded if he belongs to any one of the following categories,
 - Railway employee employed in managerial or confidential capacity.
 - Armed guards or other personnel subject to discipline similar to that of any armed police forces.
 - Staff of the railway schools imparting technical training or academic education.
 - Such staff as may be specified as supervisory.
 - Matrons
 - Sisters-in-charge
 - Matrons not on regular shift duty in Railway Hospitals
 - Health Educators and District Extension Educators
 - Family Planning Field workers
 - Lady Health Visitors
 - Auxiliary nurses-cum-midwives
 - Projectionists.
 - Other categories prescribed.
4. Intensive : The employment of a Railway employee is said to be Intensive when it has been declared to be so by the prescribed authority on the ground that it is of a strenuous nature involving continued concentration or hard manual labour with little or no period of relaxation.

Supervisory Staff

- Ministry of Labour by written order specify Railway employees or classes of Railway employees as supervisory on the ground of holding a position of responsibility employed on duties mainly of supervisory character and because of his nature of work comparatively free to adjust his hours of duty or work.
- Copy of every such order shall be send to Chief Labour Commissioner, New Delhi.

Criteria for Classification

1. Continuous : All Railway employees except those excluded from Hours of Employment Regulations are assumed to be 'Continuous'. Thereafter on the basis of factual job analysis, it may be classified as Essentially Intermittent or Intensive.
2. Intensive : Two important factors in declaring and employment as Intensive are : (i) strenuous nature of the work tending to cause mental or physical strain (ii) continuous application to such work with little or no period of relaxation. This is considered to have been satisfied where period of inaction or relaxation do not aggregate 6 hours or more in a cycle of 24 hours or one hour or more in a shift of 8 hours.
3. Essentially Intermittent : If daily duty hours which should be assumed to be 12 hour/day include
 - one period of inaction of not less than one hour or two such periods of not less than half an hour each AND
 - various periods of inaction (including that above) aggregating 50% or more during which he is not called upon to show either physical activities or sustained attention.
 - NOTE : In calculating above, periods of inaction of less than 5" shall be ignored.

	Standard Hours	Statutory Limit(Sec 132 of Railways Act 1989)	Preparatory & Complementary work
Intensive	42 h /week	45 h /week	3 h /week
Continuous	48 h /week	54 h /week	6 h /week
Essentially Intermittent	48 h /week + 12/24 h additional hours*	75 h /week	3 or 4 1/2 h /week *

* (i) Gateman 'C' , Caretakers, Chowkidars & Saloon Attendant and Railway employees in roadside stations provided with quarters within 0.5 km of place of duty - *24 h additional duty and 3h/week Preparatory & Complementary work*

(ii) Other Railway employees in EI roster - *12 h additional duty and 4 1/2 h/week Preparatory & Complementary work*

- Preparatory & Complementary work is treated as:
 1. When it is less than 15 min - not treated as duty, not exhibited in roster
 2. 15 min to less than 45 min (Continuous) - half an hour
 3. 45 min to 1 hour (Continuous) - one hour
 4. For Intensive & EI 15 min to 30 min is treated as half an hour
- Total hours for Preparatory & Complementary work shall be fixed so as not to exceed maximum hours.

Running Staff

- Running staff will have a link roster with standard hours 104 hours and statutory limit of 108 hours.
- Link should be such that it won't exceed 10 hours from "signing on" to "Signing off".
- They are given 4 periods of rest 30 consecutive hours or 5 periods of 22 consecutive hours each including a full night.

Split duty

- Spells of duty shall not exceed 3 and no of breaks not to exceed two.
- In case of employment of Continuous nature Railway employee whose place of residence is beyond 1.6 km from the place of duty seven hours of split duty shall be treated as equivalent to 8 hours of normal duty.
- While preparing rosters long on and short off shall be avoided.

CONDUCT AND DISCIPLINE**Railway service (Conduct) Rules—1966**

Main features of the rules are:

1. Every Railway servant shall all times maintain absolute integrity, devotion to duty & do nothing, which is unbecoming of a Railway servant.
2. No Railway servant will use his position or influence to secure employment for any member of his family
3. No railway servant shall be a member / office bearer of a political party. He will not take part in any manner in any political activity or movement.
4. No railway servant shall associate himself with any organization, the objects or activities of which are prejudicial to the sovereignty and integrity of India
5. No Railway servant shall criticize the policy or any action of government.
6. No railway servant shall communicate any official document or information to any unauthorized person.
7. No railway servant shall acquire moveable/immoveable property beyond one's known means.
8. No Railway servant shall give or take or demand dowry.
9. No. Railway servant shall engage in any trade or business or undertake any other employment.
10. No Railway servant shall speculate in any stock, share or other investments.
11. Railway servant shall so manage his private affairs so as to avoid habitual indebtedness or insolvency
12. No Railway servant shall accept gift or lavish or frequent hospitality from any individuals, firms etc., having official dealings.
13. No Railway servant shall appear in a public place in a state of intoxication not consume any intoxicating drink or drug while on duty. He shall strictly abide by the law relating to intoxicating drinks or drug in force in any area.
14. No railway servant shall practice un-touchability in any form or manner.
15. No Railway servant shall contract bigamous marriage.
16. No railway servant shall bring any political influence or other influence in respect of his service matters.
17. No railway servant shall stay as guest with foreign diplomats or foreign nationals nor shall invite them to stay with him as his guests in India.

Railway servants (Discipline and Appeal) Rules-1968;

Authority under Disciplinary Rules;

- 1 APPOINTING AUTHORITY: Appointing authority means the authority to made appointments to the service of which the railway servants is, for the time being, a member or the grade or the service in which the Railway servant is for time being included.
2. DISCIPLINARY AUTHORITY:- Disciplinary authority in relation to the imposition of a penalty on a Railway servant, the authority competent, to impose on him penalty is as per

schedule in normal course and in case of imposing major penalties such authority would be Appointing Authority

3. **ENQUIRY AUTHORITY:** The official who is nominated by the Disciplinary Authority to conduct the disciplinary enquiry is the Inquiry Authority

4. **DEFENCE COUNCIL:** The charged employee may present his case with the help of another person who is known as Defence Counsel or Defence Helper. Defence council should not be a legal practitioner and should not be associated with the case in his official capacity.

PRINCIPLES OF NATURAL JUSTICE:

Principles of natural justice are the principle, which lay down and elaborate the reasonable opportunity which should be given to the charged employee. Principles of natural justice are:

1. None should be condemned without being heard.
2. All decisions should be made in good faith.
3. The hearing must be impartial.
4. Reasonable opportunity should be given to defend the case.
5. Reasons for decisions should be made known to the accused.
6. The charges should be intimated in advance.
7. Justice should not only be done, it should also appear to have been done.

SUSPENSION:-

Suspension is not a penalty. An authority who is not competent to place an employee under suspension may suspend him, but immediately report to the competent authority who will confirm the order. The suspension continues till the order of suspension is modified or revoked by the competent authority that placed the employee under suspension, or by the higher authority.

Subsistence Allowance is granted to employee under suspension, equal to leave salary on half average pay and allowance admissible on such pay. Deduction of PF, courts attachment and fines cannot be recovered. House rent, water charges, diet charges, electric charges, re-payment of advance, station debits, income tax etc will be recovered. Recoveries other than these such as co-operative society's dues, institutes fee, LIC premium, school fee etc may be made on written request of employee. The amount of subsistence allowance may be increased up to 50% after 3 months, if in opinion of the authority, the period of suspension has been prolonged for reasons not directly attributable to the railway employee. The amount may even be reduced up to 50% of subsistence allowance after 3 months, if in opinion of the authority, the period of suspension has been prolonged for reasons directly attributable to the Railway employee.

(a) An employee may be placed under suspension:

- When a disciplinary proceeding is contemplated or pending against him.
- When engaged in activities prejudicial to the interest of the state.
- When a criminal case is pending for investigation, inquiry or trial.

b) An employee shall be deemed to have been suspended:

- If he remains in police custody exceeding 48 hours.
- If he is convicted for an offence and sentenced to imprisonment for a period exceeding 48 hours and is not forthwith dismissed, removed or compulsorily retired consequent to such conviction.

c) Other circumstances of deemed suspension

1. When a penalty of dismissal, removal or compulsory retirement, imposed on an employee under suspension, is set aside on appeal or revision and the case is remitted for further inquiry or action, the order of his suspension shall be deemed to have continued in force from the date of original order or dismissal etc.

2. When a penalty of dismissal, removal or compulsory retirement, imposed upon an employee, is set aside or declared void by a Court of law and when the disciplinary authority decides to hold a further inquiry in the same case. The employee shall be

deemed to have been placed under suspension by the competent authority with effect from the date of original order of dismissal etc.

EFFECTS OF SUSPENSION:

- The suspended employee remains a Government employee for all practical purposes. Various service conditions remain applicable to him.
- The last place of duty will continue to be his head quarter. The request for a change in Headquarters may be granted.
- An employee under suspension cannot be promoted. But he will be called for selection. His result will be kept in sealed cover and a provisional panel will be published. He will be considered for promotion after finalization of the disciplinary proceedings.
- Forwarding of application for deputation, assignment foreign training are not permitted.
- Resignation will be accepted normally.
- The right of voluntary retirement is not freely available.
- No leave will be sanctioned.
- Traveling allowance may be allowed if inquiry is held at an outstation.

PENALTIES:

The following penalties under DAR, for good and sufficient reasons, may be imposed on a Railway servant.

A. MINOR PENALTIES:

- Censure.
- Withholding of promotion for a specific period.
- Recovery from pay of the whole or apart of any pecuniary loss caused to the Railway Administration by his negligence.
- Withholding of passes or PTO or Both.
- Reduction to lower stage in time scale for not more than 3 years without cumulative effect & not affecting adversely his retirement dues.
- Withholding of increments (with or without cumulative effect.)

B. MAJOR PENALTIES

- Reduction to a lower stage in the time scale of pay for a specified period, with further directions as to whether on the expiry of such period,. The reduction will or will not have the effect of postponing the future increments of his pay.
- Reduction to a lower time scale , grade, post or service with or without further directions regarding conditions of restoration to the grade or post or service from which the Railway servant was reduced and his seniority and pay on such restoration to that grade, post or service.
- Compulsory retirement.
- Removal
- Dismissal.

These are Not Penalties

With holding of increment for failure to pass the departmental examination.

- Stoppage at Efficiency Bar for failure to cross it.
- Non promotion when eligible & considered but not found suitable
- Reversion to lower post, grade or service when considered unsuitable after promotion.
- Reversion at the end of promotion as per rules of probation.
- Replacement when service borrowed from another department.
- Compulsory retirement as per rules.

- Termination after probation or other conditions when made as per service agreement.
- Discharge for in-efficiency for failure to pass standards of physical fitness or reduction of employment.

Special Procedure in Some cases:

Where the normal procedure cannot be followed under the circumstances of the case, it may be desirable to follow a special procedure under Rule 14 of D&A Rules.

- (i) Where any penalty is imposed on the employee on the ground of conduct which has led to his conviction on a criminal charge; or
- (ii) Where the disciplinary authority is satisfied, for reasons to be recorded by it in writing that it is not reasonably practicable to hold an inquiry according to the rules; or
- (iii) Where the President is satisfied that in the interest of the security of state, it is not expedient to hold an inquiry according to the rules.

Procedure for imposition of Minor Penalty:

- Charges should be framed against the delinquent employee and communicated to him on prescribed standard Form No.11. Along with the charge sheet a statement of allegations is also supplied mentioning therein the charges in detail and also the basis on which the charges have been framed and a list of documents relied upon, should also be supplied to the delinquent employee. The period within which the employee should submit his explanation is specified in the charge sheet, which is usually 10 days.
- In the case the railway servant refuses to accept the charge sheet issued for service on him, it shall be on the written statement of two persons to the effect that this refusal was witnessed by them or on an advice from the post office to the effect that the addressee refused delivery of the registered postal cover, be deemed to have been served on him.
- After receiving the charge-sheet the delinquent employee may request the disciplinary authority for permission to inspect and take extract from the documents mentioned in the list accompanying the charge-sheet and also the additional documents which are relevant to the charges framed against him but have not been relied upon by disciplinary authority. Then after getting permission of the disciplinary authority, delinquent employee will inspect and take extract from document.
- After having inspected the documents the delinquent employee should submit his written statement of defence to disciplinary authority within the prescribed time. The written statement of defence should clearly contain the defence of the delinquent in regard to each of the charges.
- After considering the written statement of the charge sheet submitted by the delinquent employee, if it is proposed in the following cases an enquiry as for a major penalty shall have to be held.
 - (i) Imposition of withheld of increment temporarily(WIT) for a period exceeding three years
 - (ii) Imposition of withheld of increment permanently(WIP) for any period Where the penalty will affect the retirement dues of the employees
 - (iii) Incase where the disciplinary authority feels that a detailed enquiry should be held.
- The disciplinary authority shall then take in to consideration the representation if any , made by the delinquent servant and also the record of enquiry if any and shall determine the particular minor penalty, that should be imposed on the delinquent employee. If the penalty determined by such authority is the one when it cannot be imposed on the railway servant concerned, it shall pass on thee papers for orders to such authority which is competent to do so.
- The authority imposing the penalty should record a finding on each imputation of misconduct or misbehavior and should also consult the UPSC, if necessary, before

awarding the penalty. The disciplinary authority should pass speaking order i.e, should give reasons therefore.

- If some penalty is awarded, it must be communicated to employee concerned on prescribed for, signed by the authority imposing the penalty, over its own designation. Brief reasons for holding the employee guilty should also be communicated to him. In cases where it is decided by the disciplinary authority not to take any further action such decision should also invariably communicated to delinquent railway servant within two months of the date, the decision is taken, so that the railway servant is not kept in suspense.

In case the delinquent railway servant does not submitted his written statement of defence within the prescribed time without genuine and sufficient cause, the disciplinary authority may consider the case and pass the necessary orders imposing the penalty, as deemed fit.

PROCEDURE FOR IMPOSING MAJOR PENALTIES:

- Issue memorandum of charges in SF 5 and provide copies of documents of their inspection.
- Obtain and consider statements of defence
- Appointed Inquiry Officer is charges are not admitted.
- Inquiry officer will allow a defence counsel where asked for additional documents, when relevant should be allowed. Perusal and extracting from the list of document relied upon should be permitted.
- Inquiry Officer will decide modalities of inquiry, decide defence witness to be called for, fix calendar for inquiry and sort out other preliminary matters.
- The procedure for conducting the inquiry:
 - + The charges will be explained to the employee. Documents may be produced as required.
 - + The charged employee will asked to state if he accepts or denies the charge, will take defence counsel or will defend his case himself
 - + The prosecution witnesses,, cited in the charge sheet, will be examined. Then cross-examination of each witness by the charged employee or his counsel. Examination on any point of cross-examination, if necessary.
 - + The defence witness, if any may then be examined, cross-examined and re-examined.
 - + The charged employee will be permitted to state his defence.
 - + Inquiry authority may question the charged employee on the circumstances appearing against him in the evidence.
 - + The charged employee will be permitted to state his defence.
- Based on evidence on record, the inquiry officer shall draw his finding and inquiry report & send along with records of case and records of inquiry to the Disciplinary Authority.
- A copy of the inquiry reports should invariably be given to the charged employee and his defence should be considered before any further action is taken.
- The Disciplinary Authority shall consider the report and may accept it or draw its own finding or remit it or ask for fresh inquiry.
- If it is decided to impose a penalty which is in within its competence, the Disciplinary authority shall issue notice of imposition of penalty, otherwise forward the case to competent authority.

NOTE: In all cases where consultation of UPSC is necessary, it should be consulted.

Appeal:

- The appeal against punishment lies to the appellate authority who is usually the next higher authority to whom the disciplinary authority is subordinate.
- The Limitation is a period of 45 days from the date of order of punishment. Delay on sufficient causes may be condoned.
- A single person should appeal in his own name. The appeal should be addressed to the appellate authority only. It should not be in a improper language.
- In case of major penalty to subordinate staff, a personal hearing may be granted by the appellate authority.
- The decision in appeal cases may be (a) setting aside(b) reducing (c) confirming (d) enhancing the penalty. In case of enhancement, reasonable opportunity will be given to make a representation.
- Normally there is no second appeal. It is permitted only in case of group "D" staff who has been dismissed, removed or compulsory retirement.

REVISION

- The revising authority should not be below the rank of JA grade officer. The appellate authority may become the revising authority if no appeal was made.
- No revision can be made after more than six months of the date of order to be revised, if it was proposed to enhance the penalty or modify it to the detriment of the employee. It will not be made after more than one year if the penalty was to be reduced or cancelled. These time limit do not apply if revision was to be made by President or Ministry or the Chief Executive.
- The decision in revision cases may be similar to those in appeal cases. Reasonable opportunity will be given in case of enhancement of punishment.

REVIEW

Where a new fact comes to notice which is likely to affect substantially the decision in the case, the President of India may review the case. President may make this review at any time on his own motion or on a reference made to him. He may pass any orders in the case as deemed fit. If it proposed to enhance the penalty, a reasonable opportunity will be given to the employee to submit his representation.