

**Question Answers for Goods Guard (GDCE) GP 2800/- 15%Quota  
Secunderabad - Division 2015**

**Q1. How many Zones are there are in Indian Railways? Write them Head Quarters?**

**Ans:** There are 17 Zones in Indian Railways. There are

<b>S. No</b>	<b>Zones</b>	<b>Head Quarters</b>
1	Northern Railway	New Delhi
2	Southern Railway	Chennai
3	Eastern Railway	Kolkata
4	Western Railway	Mumbai (BGTM)
5	Central Railway	Mumbai (CSTM)
6	North Eastern Railway	Gorakhpur
7	South Eastern Railway	Kolkata
8	North western Railway	Jaipur
9	South western Railway	Hubli
10	North Central Railway	Allahabad
11	South Central Railway	Secundrabad
12	East Central Railway	Hazipur
13	West Central Railway	Jabalpur
14	North Frontier Railway	Guwahati
15	South East Central Railway	Bilaspur
16	East Cost Railway	Bhubaneswar
17	Metro Railway	Kolkata
18	Konkan Railway (Private Railway)	Navi Mumbai

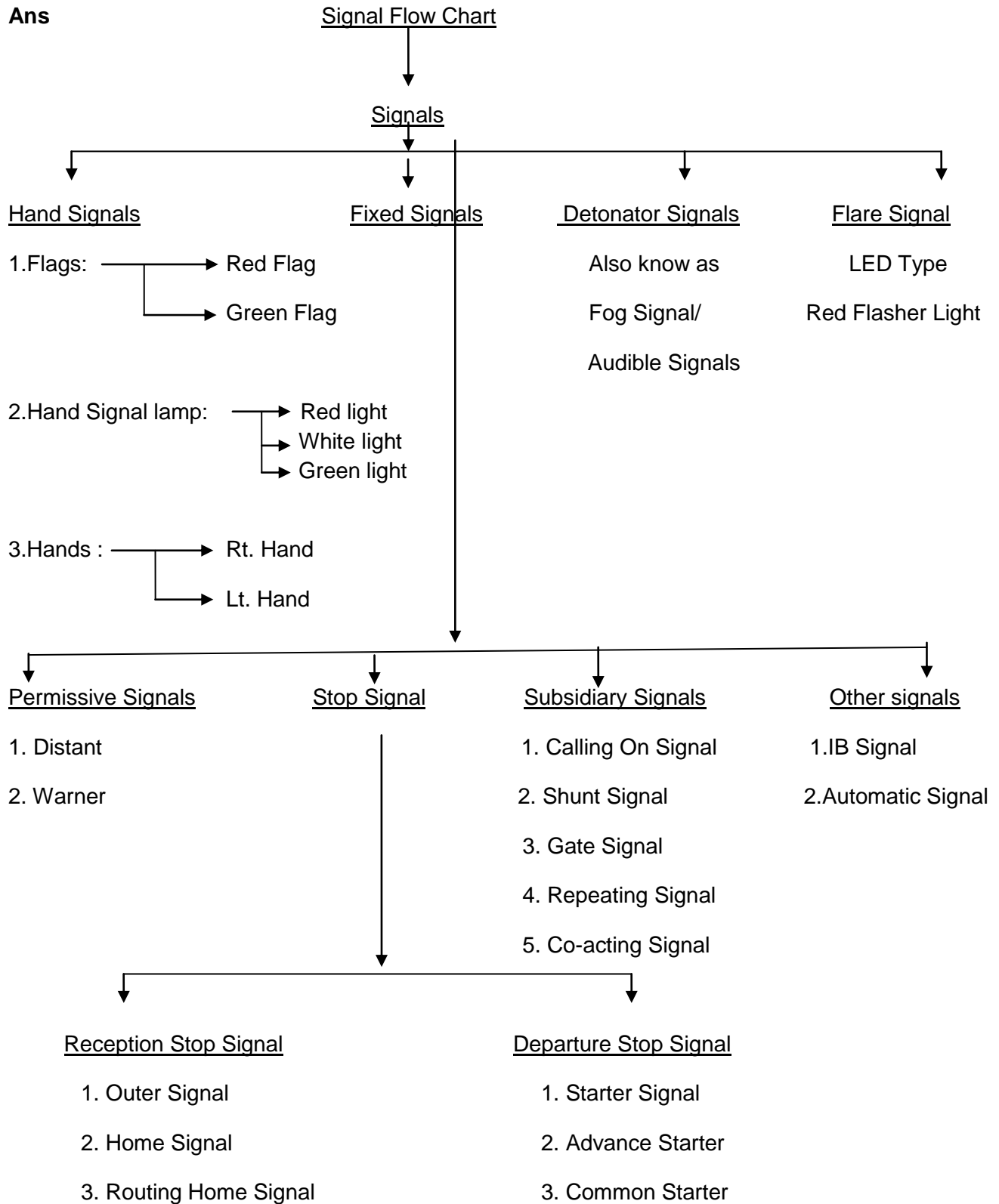
**Q2. What are the zonal interchange points on 'SC' Railway, Write them? What are the divisional interchange points of Secunderabad division write them?**

**Ans.** Zonal Interchange points of SC Railway are

1	Wadi Jn	Central Railway
2	Lathur Road Jn	Central Railway
3	Balharshah Jn	Central Railway
4	Manmad Jn	Central Railway
5	Adilabad	Central Railway
6	Khandwah Jn	Central Railway
7	Dharmavaram Jn	South West Railway
8	Ballari Jn	South West Railway
9	Renugunta Jn	Southern Railway
10	Katpadi Jn	Sothern Railway
11	Gudur Jn	Sothern Railway
12	Duvvada	East Cost Railway
<b>Divisional interchange points of Secunderabad division</b>		
1	Moula-Ali Gate Cabin	Hyderabad
2	Parli-Vaijanath (PRLI)	Nanded
3	Sulehalli (SUH)	Guntakal
4	Kondapalli (KI)	Vijayawada
5	Pagidipalli/Bibinagar	Guntur

**Q3. What are the signals which are in use on Indian Railways explain them by way of flow chart?**

**Ans**



#### 4. Intermediate Starter

**Q4. What are the various gauges on Indian Railways and what is the Inter distance between rails? Write loading/ unloading stations of Hyderabad division?**

**Ans:** There are three gauges on Indian Railway, they are

1. Broad gauge
2. Meter gauge
3. Narrow gauge

The Inter distance between rails are

1. Broad gauge – 1.676 meters - (5'.6")
2. Meter gauge – 1.000 meters - (3'.3") (3'.8")
3. Narrow gauge – 0.762 meters - (2'.6") 0.610 meters - (2'.0")

**Q5. What are the various departments of Indian Railways? Briefly explain them**

**Ans:** The following are various departments of Indian Railways.

1. Operating
2. Commercial
3. Engineering
4. Signal and Telecommunication
5. Mechanical (C&W and Loco)
6. Electrical
7. Personnel
8. Accounts
9. Stores
10. Security
11. Medical

## **Functions of the departments:**

### **Operating department:**

Will do long term and short term planning for running of passenger and goods trains. Looks after punctuality of passenger trains, Supply and movement of wagons for loading and unloading. Safety aspects for running goods and passengers trains, etc,

### **Commercial department:**

Looks after Ticket booking, Ticket checking, reservation of passengers trains. Acceptance, Booking, Carriage and delivery of goods and parcel traffic, refunds, claims, etc.,

### **Engineering department:**

Looks after track maintenance, Stations, Railway Quarters, Railway Buildings, Sanitation of Railway Quarters, Stations and Offices etc,

### **Signal &Telecommunication department:**

Looks after Signals, Points and Telecommunications maintenance and failures.

### **Electrical department:**

Looks after OHE maintenance and failures, Train lighting, Station lighting, Railway Quarters lighting etc.

### **Mechanical department:**

C&W wing looks after maintenance of passenger coaches and goods wagons. Maintenance of passenger rakes and goods trains.

Loco wing looks after maintenance of locomotives and running of trains, booking of loco pilots for running train etc.

**Personnel department:**

Looks after wages of staff, promotions, job analysis, recruitment, Human resource development, etc.

**Accounts department:**

Looks after Auditing of expenditure, Internal check of transactions, Settlement of proper claims, Compilation of budget, Purchasing/ Contracts etc.

**Stores department:**

Looks after purchasing of materials, warehousing and store keeping inventory control, transportation and distributions of materials.

**Security department:**

Protects Railway property and maintains law and order.

**Medical department:**

Looks after medical needs of Railway employee and their families both outpatient and inpatient. Conducts medical examination for all categories at Initial recruitment level. Conducts Periodical medical examination for safety categories. Conduct medical camps for prevention of dangerous diseases etc,

Performs major surgeries and maintains railway hospitals and health units.

**Q6. What are the salient features of 1967 Act of Hindi official language policy?**

**Ans:** As per the power vested by Article 343(3) the parliament of India has amended the Hindi official language policy Act in 1963 and brought into force as amendment Act 1967.

**Salient features of 1967 Act.**

1. English along with Hindi is to be used after expiry period of 15 years (i.e after

25<sup>th</sup> Jan 1965)

2. Hindi and English both should be used for the following purpose in central Government offices. This is a statutory obligation.

- i. General order, Memorandums, circulars, Notifications, Press communiqué
- ii. Administrative and other reports
- iii. Contracts, Agreements, Licenses, permits, Tender Notices and Tender forms

**Q7. What are 1976 Rules of Hindi official language policy and what are the states which come under A, B and C regions?**

**Ans:** For progressive use and effective implementation of Hindi as official language Government of India framed official language Rules in 1976 known as "Hindi official language Rules 1976"

Under these rules the entire nation is divided into 3 regions known as A, B and C regions and an annual programme will be issued every year for each region separately for effective implementation of Hindi.

**The States which come under A, B and C regions are:**

**A Region States:-** Bihar, Himachal Pradesh, Madhya Pradesh, Uttar Pradesh, Rajasthan, Haryana, Uttaranchal, Chhattisgarh, Jharkhand and Union Territory of Andaman & Nicobar Islands.

**B Region States:-** Gujarat, Punjab, Maharashtra, and Union Territory of Chandigarh Daman & Diu

**C Region :-** All States and Union Territories which are not referred in region A & B regions come under 'C' Region.

**Q8. Write briefly about Hindi official language Policy?**

**Ans:** After independence India is declared as Sovereign, Socialist, Secular, democratic republic India ruled by the people for the people. So a constitution was required and one language was

required to keep all the states of India united. Hence a constitution committee was formed to frame a constitution. With Mr. Baba Sahib Ambedkar was its chairman.

The constitution committee of India accepted Hindi as official language of Independent India and included in the constitution on 14<sup>th</sup> September 1949 from Article 343 to 351. Hence we celebrate every year 14<sup>th</sup> September as “Hindi Divas Day”

Article 343(1) says Hindi Devanagari Script and International Indian Numerals should be used as official language.

Article 343(2) says English along Hindi is to be used for a period of 15 years i.e. up to 25<sup>th</sup> January 1965.

Article 343(3) given powers to parliament to amend the Act and can use English even after 26<sup>th</sup> January 1965 if required.

As per the power vested by Article 343(3) the parliament has amended the Hindi official language Act in 1963 and brought into force as Amendment Act 1967.

In 1976 for effective implementation of Hindi as official language 1976 Rules are framed and the whole nation is divided into three regions A, B & C. A separate annual programme is issued to each region every year for effective implementation of Hindi.

To encourage people to work in Hindi every year Awards are given, competitions are conducted in different fields and prizes will be given.

In addition to above training awards are also given to those who learn Hindi and appear and pass Hindi learning exams such as Prabodh, Praveen and Pragya.

**Q9. Briefly explain Organizational set up of Indian Railways?**

**Ans:** Indian Railway functions directly under the president of India; Controlled by Parliament under the Ministry of Railways headed by Railway Minister and assisted by two or more state ministers.

The working of Railways is controlled by Railway board consists of 07 members.



1. Chairman Railway Board	CRB
2. Finance Commissioner	FC
3. Member Mechanical	MM
4. Member Engineer	ME
5. Member Electrical and S&T	ME
6. Member Traffic	MT
7. Member Staff	MS

The Head Quarters of Railway board is at New Delhi

For effective functioning, Indian Railways is divided into 17 Zones and 07 productions units. Each will be headed by General Manager.

General Manager of each zone will be assisted by AGM, SDGM and PHODs of respective departments.

The PHODs of the departments will be assisted by the HODs and other officers and supervisors

Again according to the requirement each zone will be divided into divisions. The Head of the Divisions will be DRM.

DRM will be assisted by one or two ADRMs and concerned departmental officers.

The Departments officers will be assisted by Assistant officers and Supervisors.

**Q10. What are the basic and additional passenger amenities provided at a major station?**

**Ans:** Now-a-days passenger amenities are provided basing on Annual Income of a station. Categorized into seven A1, A, B, C, D, E & F

**A1-** Non suburban station with an annual earnings above 60 cores

**A -** Non suburban station with an annual earnings between 8 to 60 cores

**B -** Non suburban station with an annual earnings between 4 to 8 cores &

Stations of tourist importance and important junction station (to be decided by GM)

**C -** All suburban stations

**D -** Non suburban stations with an annual income between 60 lakhs to 4 cores

**E -** Non suburban stations with an annual income of less than 60 lakhs

**F -** All halt stations

**Basics Amenities at Major Stations:**

1.	Booking Office	15 counters
2.	Drinking water	12 taps on each PF
3.	Waiting hall shed	100 sqmts
4.	Seating arrangement	100 seats
5.	Platform Shelter	400 sqmts
6.	Urinals and latrines	10 each
7.	Platform	High level
8.	Lighting and Fans	Adequate
9.	Foot over Bridges	As pre requirement
10.	Time table Display	At Entrance
11.	Clock	On PF, Waiting hall, etc,
12.	Water Cooler	Adequate number
13.	Clock Room	-
14.	Book & other Stalls	-
15.	Dustbins	Adequate number

16.	Washable aprons with jet cleaning	-
17.	Circulating and parking area with lights	-
18.	Emergency lighting	In PRS, Booking Office and on Platform

**Additional Amenities at major stations:**

01. SPTM/ UTS
02. IVRS
03. Enquiry counter and computer Announcement
04. NTES with touch screen
05. Public address system
06. Refreshment rooms
07. Train indicator board
08. Public phones and internet
09. Water vending machines
10. Modular catering stall
11. Automatic vending machines
12. Pay & Use Toilets
13. Retiring rooms
14. Standardized Signage's
15. Computerization of complaints
16. Common waiting room with bathing facilities
17. Separate waiting room for upper and second class with bathing facilities
18. Separate waiting room for ladies with bathing facilities

**Q11. What are the passenger amenities provided on a superfast trains?**

**Ans:** The passenger amenities provided on superfast trains in addition to the amenities

provided on Mail/Exp trains are

1. Will have all class of accommodations i.e. AC I Class, AC 2 Tier, Second class 3 Tier and 2 or 3 General Coaches.
2. High standard safety coaches like anti telescopic/LHB are used for the safety of passengers.
3. Pantry car is provided.
4. Mobile vendors are provided to sell refreshments.
5. Some superfast trains are run with complete AC without general coaches.
6. on some important superfast trains like Rajadhani Express complementary meals is provided throughout the journey.
7. on some important superfast trains like Shatabdhi Express free snacks and mineral water is provided.
8. By some important superfast trains like Rajadhani, Shatabdhi, Duronto Express free Newspaper and Magazines are supplied for reading.
9. Some superfast trains like Duronto runs non-stop from source to destination baring technical halts.
10. Some superfast trains like Sampark kranti runs connecting all important stations of a state to National capital New Delhi.
11. Some superfast trains like Garibrath Express runs with economical class complete AC accommodation with less fare for the benefit of middleclass people.
12. Toilets are provided in good and hygienic conditions.
13. Best lighting facilities are provided.
14. The punctuality of superfast trains is monitored by Railway board.
15. The average speed of superfast train shall not be less than 60 KMPH from originating station to destination which including stoppages of train.

**Q12) Briefly explain classification of stations**

**Ans. Classification of stations:** Stations are mainly classified into two categories.  
(1). Block stations and (2). Non Block stations.

**Block stations:**

Block stations are those stations at which the Loco Pilot of a train must obtain an authority to proceed under the system of working to enter the block section with his train.

There are four types of block stations.

- 1) "A" class stations
- 2) "B" Class stations
- 3) "C" class stations
- 4) Special class stations.

**Non Block stations:**

Non block stations are stations situated between two consecutive block Stations and do not form the boundary of any block section. Also called "D" Class stations or halt stations or contract stations or commercial stations etc.

**Q13. What are the various classes of accommodation available by various passenger carrying trains?**

**Ans:** The various classes of accommodation available by various passenger carrying trains.

BROAD GAUGE		
S. No	Class of Accommodation	Capacity
1	AC I Class Full Coach	18 Berths
2	AC II tier	46 Berths
3	AC III Tier	64 Berths
4	AC I Class cum AC II Tier	I AC 10 Berths & AC II Tier 20 Berths
5	AC Chair Car	73 Seats
6	First Class	22 to 26 Berths
7	I Class Chair Car	48/ 60 Seats

8	I Class & II Class Sleeper	6/10 I Class Berths & 56/40 II Class Seats
9	II Class III Tier Sleeper	72 Berths
10	II Class Day Coach	90/108 Seats
11	II Class General Coach	76/90 Seats
12	II Class Luggage Cum Brake Van	40 II class Seats
<b>METER GAUGE</b>		
<b>S. No</b>	<b>Class of Accommodation</b>	<b>Capacity</b>
1	AC II Tier	48 Berths
2	I Class Cum II Class	I Class 6/8 Berths II Class 52/40 Seats
3	II Class III Tier	48 Berths
4	II Class Day Coach	80 Seats
5	II Class General	64/68 Seats
6	II Class Luggage cum Brake van	II Class 32 Seats

**Q14. What is All Right Signal. How it is given. What are the things to be observed**

**while exchanging All Right Signal.**

1. All Right Signal exchange means the exchange between Loco Pilot and Guard to ensure that the Guard is in his brake van and the train can proceed.
2. Also exchanged between Station staff/Gateman and Train crew to ensure that the train is running in a safe and proper manner or not.
3. Given by holding a green flag horizontally by day and by green light by night when train is running safe and proper manner at Station.

At Gate Gateman no signal by day and white light by night.

4. If any unusual is noticed on run through train Station staff/ Gateman shall exhibit danger hand signal (Day-Red Flag, Night - Red Light) immediately and try to stop the train.
5. If it is not possible to stop the train Station Master shall advise Loco Pilot through

Gateman, TPC or through any other means and try to stop the train as early as possible.

6. Also inform Station Master in advance to stop the train and examine.
7. When train passing through a station SM shall give exchange from station side and points man from off side.
8. Shall be exchanged till engine passes Advance starter or Last Stop Signal.

**While Exchanging All Right Signals the following things are to be observed**

1. Fire on Train
2. Hot Axle
3. Flat Tyre
4. Hanging Parts
5. Loose/Slack couplings
6. Open Doors of Goods trains
7. Shifting of loads
8. Goods falling from Goods train
9. Leakage of Oil Tanks
10. Brake binding
11. Broken springs
12. Shackle pin broken
13. Master plates broken
14. Any other things which endangers the safety of the train
15. Lastly during day time LV board, night time Tail lamp and also Guard in Brake Van

If LV board/Tail lamp is not available and Guard is not visible inform SM and shall not exhibit (show) Danger hand signal.

**Q15. How many types of coupling are there and how to ensure proper coupling of IRS and CBC.**

**Ans. TYPES OF COUPLINGS**

1. IRS Screw Coupling. -- Used for BG Coaching stock.
2. CBC (Centre Buffer Coupling) ('E' TYPE) -- Used for BG Goods stock.
3. CBC (Centre Buffer Coupling) ('H' Type ) -- Used at Some latest BG coaches.  
(Tight lock)
4. Semi Permanent Couplers -- Used at DHMU/EMU/DEMU Coaches.  
(Shako couplers)
5. Slack free couplers -- Used at BLC (Container) Wagons.
6. Transition Coupling -- Used at All Engines ('E' Type & 'H' Type)
7. ABC (Automatic Buffer Coupler) -- Used for MG coaching & Goods stock.

**Ensure the following while coupling (IRS) Coaches.**

Coupling has to be tightened fully. No slack coupling is permitted.

Tightness of the thread has to be uniform on both side of the turn buckle.

Slack coupling will lead to jerks on run and coupling may breaks and results to train parting.

**Ensure proper Locking of CBC Coupler ('E' type).**

The locked position is indicated by the Toggle which should be clearly visible below the coupler head by minimum 19mm.

**Ensure proper Locking of CBC Coupler ('H' type):**

After coupling check the coach CBC and loco CBC is locked properly by

- 1) Clear Tell Tale Races
- 2) Lug of the Lock lift assembly should perpendicular or Inclined towards CBC
- 3) Yellow paint mark visible are indicates proper locking

**Q16. What are major and minor penalties?**

**Ans: Minor Penalties:**



- 1) Censure
- 2) With holding of promotion for a specified period.
- 3) Recovery from pay – loss caused by employee- whole or part.
- 4) With holding of passes or PTOs or both.
- 5) Reduction to lower stage in the time scale of pay – not exceeding 3 years without cumulative effect.
- 6) With holding of Increments for a specified period with or without having effect on future increments.

**Major Penalties:**

- 1) Reduction to lower stage in time scale of pay for a specified period with or without has effect on future increments.
- 2) Reduction to lower time scale of pay, grade, post or service with or without loss of seniority.
- 3) Compulsory Retirement.
- 4) Removal from service
- 5) Dismissal from service.

**Q17.What is procedure for working of trains when.**

- a) Reception signals defective.
- b) Departure signal defective
- c) IB Signal defective.

**Ans. (a) Reception signals defective**

There are four methods on Indian Railways

- 1) Calling “ON” method
- 2) Pre-warning method
- 3) T-369 ( 3b) method
- 4) Signal Telephone method (STP)

**In S.C.Railway STP method is not in force**

**Calling “ON” method**

- 1) First train is to stopped at signals

- 2) Than all the points are to set correctly to the line of admission
- 3) Calling "ON" signal is to be taken "OFF"

**Pre – warning method (T-369 (1))**

- 1) SM shall advise rear end notice SM to issued T-369 (1) memo to LP
- 2) Line free – upto adequate distance,
- 3) Points – Set correctly clamp & padlock
- 4) LC gates – if any to be closed by exchange of PN
- 5) Competent railway servant ( P.Man) shall show proceed Hand Signal at the foot of defective signal.
- 6) Speed – 15 KMPH
- 7) SM shall full fill conditions for taking "off" reception signal in this method.

**T-369 ( 3b) Method**

- 1) SM shall ensure line free up to trailing point
- 2) Set all the points correctly, clamp and pad lock to the line of admission.
- 3) Close LC gates if any supported by a private number
- 4) Depute competent Railway servant with T-369 (3b) to hand over it to Loco Pilot at foot of defective signal and to show Proceed Hand Signal.

**(b) Departure signal defective**

**Starter defective.**

- 1) If calling "ON" signal is provided, stop the train, than take "Off "calling ""ON" signal.
- 2) Otherwise set the points correctly, clamp and padlock. Hand over T-369 (3b) to Loco Pilot and shall show Proceed Hand Signal at the foot of defective starter.

**Advance starter defective.**

Single line token section.

- 1) When token extracted – Token + T-369 (3b)
- 2) Token not extracted – PLCT

Single line Token less section and on double line PLCT

PLCT means paper line clear ticket

PLCT No. UP – T/C 1425      Down - T/D 1425

**C) IB Signal defective**

- 1) SM shall suspend IB working and treat complete block section as are.
- 2) SM shall obtain line clear, stop the train and issue PLCT+T.369 (3b) to pass IB  
signal at "ON"

**Q18. Write briefly about Fog Signals.**

- Ans.**
1. Detonator signals are called fog signal because SM uses these signals during thick and foggy weather to warn LP about the approaching of signals.
  2. It is a metal disc charged with explosive and capable of being fixed on rail head by means of metal clasps.
  3. When a engine or vehicle passes over it, it explodes with loud sound and attracts the attention of Loco Pilot and Guard.
  4. Normal life – Before 2010 Manufacture - 07 years, After 2010 Manufacture – 05 years can be extended for 03 years, testing every year.
  5. During thick and foggy weather two detonators 10mts apart, shall be placed at Fog signal post located at 270 meters from First Stop Signal (FSS).
  6. When Loco Pilot explodes, shall slow down his train and observe signals carefully weather given or not and act accordingly.
  7. Also supplied to Loco Pilot, Guard, Gateman patrolman, Trolley/Lorry in charge, Gang mate, Section Engineer (P.Way), etc.
  8. Gateman uses for Gate Protection, Rest all uses for Line Protection.
  9. When there is an obstruction on track at Level Crossing Gate, which endangers the safety of a train, Gateman shall protect the Gate by placing one detonator at 600 meters and three detonators at 1200 Mts, 10Mts apart

**Q19) Write the differences between:**

- a) **DISTANT and HOME Signal**
- b) **Shunt signal and calling 'ON' signal**

**c) Semaphore signal and colour light signal**

<b>A</b>	<b>DISTANT SIGNAL</b>	<b>HOME SIGNAL</b>
1	It is a permissive signal	It is a stop signal
2	Provided in MAS/ Modified TAS	Provided in MAS/ TAS
3	Gives 3 aspects; Caution, Attention and proceed	Gives 3 aspects in MAS; Stop, Caution and proceed.  In TAS; Stop and proceed
4	It can be combined with Gate Signal and Last Stop Signal (L.S.S.)	It cannot be combined with any other signal.
5	In MAS it's placed NLT 1000 mts from F.S.S.	In MAS it's placed NLT 300mts form outer most facing points.  In TAS it's placed near points.
6	If the speed of the train is above 110 kmph double distant is compulsory.	No such thing is required.
7	In colour light it have (P) marker board	No such board is required.
8	In semaphore arm type it have fish tail arm painted yellow in colour with black bar.	In semaphore arm type it have square end painted red in colour with white bar.
9	Will not protect points	It protects points.
10	It tells about next stop signal.	Tells about line of admission.
<b>B</b>		
	<b>Shunt Signal</b>	<b>Calling 'ON' Signal</b>
1	Provided Independent or below stop signal except FSS	Provided below stop signal only. Except LSS
2	Three types i) Miniature semaphore Arm type ii) Disc type iii) Position light type	Two types i) Miniature Semaphore Arm type ii) Colour light

3	No, Board is provided	'C' Marker board is provided
4	Used for shunting only	Used for admitting the train on obstructed line during signal and track circuit failure
5	When Independent in 'ON' position it gives stop indication	In 'ON' position no Indication.
6	In 'OFF' position it indicates Loco pilot to proceed with a speed not exceeding above 15 KMPH for shunting only	In 'OFF' it Indicate proceed cautiously with a speed not exceeding 30 KMPH and be prepare to stop short of obstruction.
<b>C</b>	<b>Semaphore Signal</b>	<b>Colour light Signal</b>
1	These signals gives aspects during day by its Arm and during night by light/lights	These signals gives aspects during day and night by lights only.
2	<u>'ON' POSITION</u> Horizontal position of Arm by day and light by night	<u>'ON PSOTION</u> Stop signal – Red light permission signal – one yellow light
3	<u>" OFF" POSITION</u> 45° TO 60° Below Horizontal by day and Green light by nigh in TAS. 45° to 60° or 90° above Horizontal by day and Yellow or Green light by night in MAS	<u>"OFF" POSITION</u> Stop signal -Green light in TAS. Stop signal- Yellow or Green in MAS Permissive signal – Double Yellow or Green in MAS
4	Semaphore Arm type signals are of two types ( I ) Square end type  (II )Fish tail end type	No such types
5	Semaphore Arm type stop signal will have square end painted Red in Colour with white bar	Colour light stop signal will have Red light compulsorily in addition on to Yellow and Green light
6	Semaphore Arm type Distant signal will have fish tail arm painted Yellow in Colour with Block bar.	Colour light Distant signal will have Yellow & Green light only and will have 'P' marker board.
7	Semaphore Arm type Warner signal will have fish tail Arm painted red in colour with white	Colour light Warner signal will have red & Green light. When independent a

	bar	fixed green light 1.5 to 2 mtrs above is provided
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**Q20. Briefly explain about the following wagons with their carrying capacities.**

**BCN,BOXN,BRN,BTPN,BTPGLN,BLC & BCCW.**

**Ans. BCN : Bogie Covered Numatic (Air Brake) Wagon.**

1. Designed in 1984 with 20.3 ton axle load.
2. Construction of these wagons was purely riveted.
3. Carrying Capacity is 54.08 tones.
4. Tare Weight is 27.2 tones.
5. Gross Weight is 81.28 tones.

**BOXN : Bogie Open Numatic (Air Brake) Wagon.**

1. These wagons are designed for transportation of iron ores, coal etc.
2. The maximum axle load is 20.32 tones.
3. Fitted with non-transition center buffer couplers and single pipe graduated Air brake system.
4. Carrying Capacity is 58.08 tones.
5. Tare Weight is 23.2 tones.
6. Gross Weight is 81.28 tones.

**BRN : Bogie Rail Wagon Heavy Numatic (Air Brake).**

1. Improvement of BRH Wagon, designed in 1994
2. Welded construction with Air Brake system. Axle loads 20.32 tones.
3. Designed to transport long welded rails.
4. Carrying Capacity is 56.887 tones.
5. Tare Weight is 24.393 tones.
6. Gross Weight is 81.28 tones.

**BTPN : Bogie Tank Wagon Numatic (Air Brake).**

1. Designed to transport Petroleum products i.e. kerosene, petrol, diesel and naphtha.
2. Axle loads 20.32 tones.
3. Carrying Capacity is 54.28 tones.
4. Tare Weight is 27 tones.
5. Gross Weight is 81.28 tones.

**BTPGLN : Bogie LPG Tank Wagon Numatic (Air Brake).**

1. Designed to transport LPG at a pressure of 15.85 kg/sq.cm.
2. Roller Bearing with Transition Coupling.
3. Axle loads 20.32 tones.
4. Carrying Capacity is 37.6 tones.
5. Tare Weight is 41.6 tones.
6. Gross Weight is 79.2 tones.

**BLC : Bogie Low Platform Container Flat.**

1. Designed to transport 20 feet & 40 feet long ISO containers at a speed of 100 KMPH.
2. There are two types of BLC wagons. BLC-A & BLC-B.
3. BLC-A & BLC-B Axle loads 20.32 tones.
4. Carrying Capacity - BLC-A & BLC-B 61 tones.
5. Tare Weight BLC-A 19.1 tones & BLC-B 18 tones.
6. Gross Weight BLC-A 80.1 tones & BLC-B 79 tones.

**BCCW : Bogie Covered Cement Wagons.**

1. Designed to transport purely cement.
- 2.
3. Axle loads - tones.
4. Carrying Capacity - tones.

5. Tare Weight - tones.
6. Gross Weight – tones.

**Q21. Briefly explain Drunkenness on duty policy.**

**Ans : DRUNKNESS ON DUTY POLICY**

- i. List of staff prone to alcohol is to be maintained at all stations, crew lobbies etc., without fail.
- ii. A Special watch should be kept on these alcoholic staff, specially running staff.
- iii. All staff should be counseled that it is their moral duty to report in case any staff is found under the influence of alcohol
- iv. Staff identified as alcoholic should be counseled on short term/long term ill effects of alcohol during trainings at Training institutions.
- v. Families of the staff should also be counseled on the ill effects of the alcohol.
- vi. Alcoholic staff be sent for de-addiction camps.
- vii. De-addiction camps may be organized by divisions within their resources or alternative NGO'S should be identified for the purpose.  
These camps should be organized at regular intervals and this should be a continuous process.
- viii. Staffs are to be checked by conducting surprise ambush checks with breathalyzers. In case found positive, should be taken up under D&AR / Major penalty.
- ix. Especially for running staff before signing "ON" and signing "OFF" BA test is to be conducted without fail.
- x. If found positive while signing "ON" should not be taken on duty and major penalty is to be issued.
- xi. If found positive while signing "OFF" staff to be suspended and major penalty is to be issued.

As per Railway Board guide lines and CSO letter no safety 157/VOL-IV Dt 11.01.2012 and JPO issued regarding alcohol policy Dt 27/02/2015.

- i. Staff tested positive less than 40 mg/100ml - Minor penalty.



- ii. Staff tested positive more than 40mg/100ml - Major penalty.
- iii. Staff tested positive more than 3 times irrespective of level – Major penalty.

While reporting “ON” duty, while on duty till sign “OFF” zero tolerance to be taken as policy.

**Q22. What are the different types of Passenger carrying trains running on Indian Railways.**

**Ans : TYPES OF PASSENGER CARRYING TRAINS**

1. Passenger trains.
  - Long Distance passenger trains
  - Short Distance passenger trains
2. Mail Express trains.
3. Super fast Express trains
4. Rajdhani Express trains
5. Shatabdi Express trains
6. Sampark Kranti Express trains
7. Jana Shatabdi Express trains
8. Intercity Express trains
9. Swarna Jayanti Express trains
10. Sub-urban trains
11. Metro trains
12. Multi Model Transportation trains(MMTS)
13. MEMU trains (Main line electrical multiple unit trains)
14. DEMU trains (Diesel / Electrical multiple trains)
15. Sky Bus
16. Deccan Queen (for season ticket holders between Pune – Mumbai)
17. Janmaboomi (between Vishakhapatnam – Vijayawada)
18. Garib Rath (Economical AC fare train for middle class & lower middle class people)
19. Latest train between Delhi and Mumbai with LHB Coaches (Lanke Hoffman Bosch) with speed potential of 160 to 180 KMPH.

**Q22. What are the different types of Passenger carrying trains running on Indian Railways.**

**ANS : TYPES OF FREIGHT CARRYING TRAINS**

1. BCN
2. BOXN
3. Green Arrows (Cement & food grains)
4. Red Star (Iron Ore)
5. Black Diamond (Coal)
6. Jumbo Rakes
7. Crack Special
8. Millennium Special (Coaching)
9. Sherpa Rakes
10. Container Service trains
11. Material Train (departmental)
12. Military Specials
13. Roll " ON" Roll "OFF" Service trains (RORO Trains)
14. Merry go round trains
15. Close Circuit Rakes
16. Non – Close Circuit rakes
17. Juggler special trains
18. Mixed trains
19. Oil Tank Special (POL Trains)
20. ODC/ISMD (Over dimension consignment trains (Infringement of standard moving dimensions))
21. Black Rockets
22. Jai Kisan Trains.
23. Ispat Trains.

**Q23. Kinds of locomotives and their advantages over others.**

**Ans : Diesel Locomotives.**

1. WDM2 : It was introduced in 1960  
Service: Freight and coaching  
Axle load 18.8 Tones  
Fuel Capacity 5000 Liters  
HP 2600 Tones. (HP means - Horse Power / Pulling capacity)
2. WDM3A : Introduced in 1995/1996  
Service Can be used both freight and coaching  
Axle load 18.8 Tones  
Fuel Capacity 5000 Liters  
HP 3100 Tones
3. WDG3A : Introduced in 1995/1996  
Service Can be used only for freight  
Axle load 20.5 Tones.  
Fuel Capacity 6000 Liters  
HP 3100 Tones
4. WDP1 : Introduced in 1998/1999  
Service Can be used only for coaching (Passenger Carrying trains)  
Axle load 20.0 Tones  
Fuel Capacity 3000 Liters  
HP 2300 Tones
5. WDM3D : Introduced in 2003  
Service Can be used both freight and coaching  
Axle load 19.5 Tones  
Fuel Capacity 6000 Liters  
HP 3300 Tonnes
6. WDM3F : Introduced in 2009  
Service Can be used both freight and coaching  
Axle load 20.0 Tones  
Fuel Capacity 6000 Liters  
HP 3600 Tones
7. WDG4 : Introduced in 2000/2001  
Service Can be used for only freight (goods)  
Axle load 21.0 Tones  
Fuel Capacity 6000 Liters  
HP 3600 Tones
8. WDP4 : Introduced in 2001 / 2002

Service Can be used only for coaching (Passenger carry train)  
Axle load 19.5 Tones  
Fuel Capacity 6000 Liters  
HP 4000 Tones

9. WDP4B : Introduced in 2007  
Service Can be used only for coaching  
Axle load 20.5 Tones  
Fuel Capacity 6000 Liters  
HP 4500 Tones

10. WDP4D : Introduced in 2010  
Service Can be used only for coaching  
Axle load 20.5 Tones  
Fuel Capacity 5000 Liters  
HP 4500 Tones

### **Electrical Locomotive parameters (Advantages)**

1. WAM4 : Service only for coaching, Axle load - 18.8 Tones  
Maximum Speed 110 KMPH, HP – 3640 Tones
2. WAG5 : Service for Freight and Coaching, Axle Load – 19.8 Tones  
Maximum speed 105 KMPH, HP – 3850 Tones
3. WAG7 : Service only for coaching, Axle load – 20.5 Tones  
Maximum Speed 100 KMPH, HP – 5000 Tones
4. WAP1 : Service only for coaching, Axle load - 18.05 Tones  
Maximum Speed 130 KMPH, HP – 4620 Tones
5. WAP4 : Service only for coaching, Axle load - 18.80 Tones  
Maximum Speed 140 KMPH, HP – 5000 Tones
6. WAP5 : Service only for coaching, Axle load - 13 Tones  
Maximum Speed 160 KMPH, HP – 5440 Tones
7. WAP7 : Service only for coaching, Axle load – 20.5 Tones  
Maximum Speed 130 KMPH, HP – 6120 Tones
8. WAG9 : Service only for Goods, Axle load – 20.5 Tones  
Maximum Speed 100 KMPH, HP – 6120 Tones

24.Q. Briefly explain advance reservation system and charges to be collected for different class of accommodation ?

Ans: Advance reservation can be done 120 days in advance excluding date of journey for Indian passengers and for Foreign passengers 360 days in advance. Tatkal reservation is done 1 day in advance excluding the day of journey at the originating station.

Tatkal reservation for upper class counter opens at 10 AM and sleeper class at 11 AM .

Advance reservation is provided on the principal “ First come First served “ basis.

Maximum number of passengers allowed on a single reservation ticket is 6.

More than 6 persons is treated as group booking for which prior permission is required accordingly.

Reservation charges are collected in addition to the basic fare as follows:

Class	Charges in Rs.
II- class	15
Sleeper class	20
AC- chair car	40
AC -3 Tier economy class	40
AC -3 Tier	40
First class	50
AC 2 Tier	50
AC First class	60
Executive class	60

Tatkal charges are collected at the rate of 10% of basic fare for second class sitting and 30% of basic fares for all other classes, subjected to a minimum and maximum as follows.

Class	Minimum	Maximum
Second Sitting	10	15
Sleeper	90	175
AC Chair car	100	200
AC 3 tier	250	300
AC 2 tier	300	450
Executive class	300	450

There is no difference of Levying Tatkal charges both in peak period and non-peak period.

Tatkal confirmed tickets once issued will not be cancelled. If cancelled no refund of amount is given.

For First class and AC classes service tax also collectd at the rate of 3.8%.

Cancellation charges for normal reservation is as follows

More than 48 hrs, in advance of before the schedule departure of the train

AC First class/Executive class	Rs.120/-
AC 2-tier/First Class	Rs.100/-
AC 3-tier/AC chair Car	Rs.90/-
Sleeper Class	Rs.60/-
Second class	Rs.30/-

Between 48 hrs and up to 6 hrs before the schedule departure of the train 25% of the fare.

With in 6 hrs. up to 2 hrs. of the actual departure of the train 50% of the fare.

Wait list and RAC tkts up to 3 hrs of actual departure of the train irrespective of the class Rs. 30/- is collected.

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**OBJECTIVE QUESTIONS FOR GOODS GUARDS AGAINST 15% GDCE QUOTA.**

**SECUNDERABAD DIVISION**

**Abbreviations:**

- 01) MMTS: Multi Model Transport System
- 02) ZRTI: Zonal Railway Training Institute
- 03) POET: Passenger Operated Enquiry Terminal
- 04) IVRS: Interactive Voice Response System.
- 05) COIS: Coaching Operating Information System.
- 06) FOIS: Freight Operating Information System.
- 07) ACD: Anti Collision Device.
- 08) IRCTC: Indian Railway Catering and Tourism Corporation Limited

- 09) MEMU: Mainline Electrical Multiple Unit.:14) 15)
- 10) DHMU Diesel Hydraulic Multiple Unit.
- 11) IRISSET: Indian Railway Institute of Signal Engineering and Telecommunication.
- 12) RDSO: Research, Design and stands organizations.
- 13) CRIS : Center for Railway Information system.
- 14) RCT: Railway Claims Tribunal
- 15) MR : Minister of Railways
- 16) CPRO: Chief Public Relations Officer
- 17) LVCD: Last Vehicle Cheek Device
- 18) FRED: Flashing Rear End Device
- 19) CRB: Chairman Railway Board
- 20) SCOR: Section Controller
- 21) COM: Chief Operations Manager
- 22) PLCT: Paper Line Clear Ticket
- 23) MOSR: Minister of State for Railways
- 24) GM: General Manager
- 25) MT: Member Traffic
- 26) RSC: Railway Staff college
- 27) ART: Accident Relief Train
- 28) MRV: Medical relief Van
- 29) SPAD: Signal passing At Danger
- 30) NTES: National trains Enquiry system
- 31) DRM: Divisional Railway Manager
- 32) PNR: Permanent Numerical Record (Permanent Number Register)
- 33) Sr.DOM: Senior Divisional Operations Manager
- 34) CFTM: Chief Freight Traffic Manager



- 35) CPTM: Chief Passenger Traffic Manager
- 36) CCM: Chief Commercial Manager
- 37) CSO: Chief Safety Officer
- 38) SWR: Station Working Rules
- 39) SLR: Second Class Luggage cum Brake Van
- 40) BV: Brake Van
- 41) BCN: Bogie Covered Numatic (Air-Brake)
- 42) BCX: Bogie Covered all Welded (Vacuum Brake)
- 43) BFR: Bogie Flat for Rails
- 44) SDGM: Senior Deputy General Manager
- 45) CPO: Chief Personnel Officer
- 46) CTR: Combined Train Report
- 47) VG: Vehicle Guidance
- 48) LSS: Last Stop Signal
- 49) TSR: Train Signal Register
- 50) FSS: First Stop Signal

**True or False:**

- 01) Tail lamp LV board is not provided when light engine or coupled light engine on run. **(False)**
- 02) A white light by night or a green flag by day moved up and down indicates that the train has parted. **(True)**
- 03) Fortnight gazette is issued once in a month. **(False)**
- 04) Train arriving with hot axle wagon is to be admitted on main line. **(True)**
- 05) Semi-Automatic signal is provided with (A) marker board. **(False)**

- 06) T. 806 is an authority to pass defective signal in "ON" position. **(False)**
- 07) Motor trolley is permitted into the section without Line Clear. **(False)**
- 08) A train running without Guard can be given through during Night time. **(True)**
- 09) Shunt Signal can be taken "OFF" for dispatching a train. **(False)**
- 10) Passenger carriages in order to save time and detention to train may be loose shunted. **(False)**
- 11) All temporary speed restrictions imposed are incorporated in working time table. **(False)**
- 12) T1425 is the authority for working trains on paper line clear ticket. **(True)**
- 13) Colour light Home signal will have (P) marker board. **(False)**
- 14) Banner type Repeating Signal shows Yellow light in 'ON' position during night **(False)**
- 15) Calling "ON" Signal can be given for admitting the train on obstructed line **(True)**
- 16) Calling "ON" Signal is also known as 'Duplicate Signal. **(False)**
- 17) VTO is placed at 270 meters from SM's office. **(True)**
- 18) Shunt Signal can be placed below FSS. **(False)**
- 19) At Road side station shunting must be supervised by Guard. **(True)**
- 20) BSLB is provided only a Double line when required. **(True)**
- 21) Shunting Limit Board is provided on all signal line Block station. **(False)**
- 22) T/J 602 is an authority given to Loco Pilot during Total failure of communication on Double line. **(False)**
- 23) When a Material train is stabled at a station SM is responsible for securing the train. **(False)**
- 24) Fog protection is not required where Double Distant Signal is provided. **(True)**
- 25) A Railway servant directly connected with trains working shall not take alcoholic drink 08 (eight) hours before the commencement of duty. **(True)**

**Fill in the blanks:**

- 01) Out laying siding points are indicated by \_\_\_\_\_ marker board. (“S”)
- 02) Catch Sliding protects \_\_\_\_\_. (**Station Section**)
- 03) Slip Sliding protects \_\_\_\_\_. (**Block Section**)
- 04) Catch Sliding and slip siding shall not be used for \_\_\_\_\_ and \_\_\_\_\_ purpose.  
(**Shunting & Stabling**)
- 05) Signal Sighting Committee will go on footplate inspection once in \_\_\_\_\_ (**03 months**)
- 06) \_\_\_\_\_ signal will not show any light in any position any time. (**Banner type Repeating**)
- 07) Wherever two distant Signals are provided, distant signal is located at \_\_\_\_\_  
Meters form the Home Signal. (**2000**)
- 08) \_\_\_\_\_ board is not required whenever two distant signals are provided. (**Signal Warning**)
- 09) Calling “ON” signal shows \_\_\_\_\_ light in “OFF” position. (**Miniature Yellow**)
- 10) Shunt Signal can be provided below any stop signal except \_\_\_\_\_. (**First Stop Signal**)
- 11) Calling “ON” signal shows \_\_\_\_\_ light in “ON” position. (**No light**)
- 12) Double Distant Signal is provide when the speed of the train is \_\_\_\_\_ (**above 110 KMPH**)
- 13) The normal life of Detonator is \_\_\_\_\_. (**Before 2010 – 07 years, After 2010 - 05 years**)
- 14) During train parting the detonators are used for \_\_\_\_\_. (**Second Portion**)
- 15) Pre-warning memo to pass defective reception stop signal is \_\_\_\_\_. (**T. 369 (1)**)
- 16) Fresh BPC is required whenever \_\_\_\_\_ or more vehicles are attached or detached  
to / from a train. (**Four**)
- 17) When CC rake is stabled for more than \_\_\_\_\_ fresh BPC is required. (**24 hours**)
- 18) A goods train having 56 wagons the BP Pressure is engine shall be \_\_\_\_\_ and in Brake  
Van shall be \_\_\_\_\_ (**05 kg/cm<sup>2</sup> & 4.8 kg/cm<sup>2</sup> )**)

- 19) A goods train having 58 wagons the BP Pressure is engine shall be \_\_\_\_\_ and in Brake Van shall be \_\_\_\_\_. **(05 kg/cm<sup>2</sup> & 4.7 kg/cm<sup>2</sup>)**
- 20) Reduction of BP Pressure causes \_\_\_\_\_. **(Brake Application)**
- 21) Creation of BP Pressure causes \_\_\_\_\_. **(Brake Release)**
- 22) \_\_\_\_\_0 \_\_\_\_\_0, Engine Whistle code means \_\_\_\_\_. **(Train arrived incomplete Or Train Parted)**
- 23) Whistle code for All right exchange not given is \_\_\_\_\_. **(Two short) (00)**
- 24) While performing shunting the points which are not protected by signals, Shall be locked by \_\_\_\_\_ or by \_\_\_\_\_ method. **(Cotter Bolt or Clamp & Pad lock)**
- 25) For admitting a train on Un-signed line \_\_\_\_\_ memo is given to the Loco pilot of a train. **(T.509)**
- 26) Approved Special Instructions are issued or approved by \_\_\_\_\_. **(CRS)**  
**(Commissioner of Railway safety)**
- 27) Special Instructions are issued by \_\_\_\_\_. **(Authorized Officer)**
- 28) \_\_\_\_\_ is the authority for passing FSS at "ON". **(T369 (3b) or T.369 (1) & Proceed Hand Signal (PHS) at the foot of defective signal)**
- 29) \_\_\_\_\_ is the authority for passing Shunt signal at "ON". **(T369 (3b) & Proceed Hand Signal (PHS) at the foot of defective signal)**
- 30) \_\_\_\_\_ is authorized officer of SC Railway. **(Chief Operations Manager)**
- 31) During TSL working Loco Pilot is given \_\_\_\_\_ memo. **(T/D 602)**
- 32) On BG Caution Indicator Board is provided at \_\_\_\_\_ meters form the spot. **(1200)**
- 33) Stop Indicator Board is provided at \_\_\_\_\_ meters before the Stop dead and proceed speed restriction. **(30)**
- 34) Head Quarters of North East Frontier Railway is \_\_\_\_\_. **(Gauwathi)**

- 35) \_\_\_\_\_ is the head Quarters of East coast Railway. **(Bhubaneswar)**
- 36) The longest platform on SC Railway is at \_\_\_\_\_ and it is \_\_\_\_\_ meters.  
**(Vijayawada, 2210 meters)**
- 37) Sub-urban stations come under \_\_\_\_\_ for providing passenger Amenities.  
**(“C” – Category)**
- 38) Junction and Tourist important stations comes under \_\_\_\_\_ for providing passenger amenities. **(“B”- Category)**
- 39) Detonators are also known as \_\_\_\_\_ signals. **(Fog/Audible Signal)**
- 40) Warner Signal when placed independent a \_\_\_\_\_ light is provided above at \_\_\_\_\_ meters. **(Fixed Green, 1.5 to 2 meters)**
- 41) Distant Signal gives \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_ Aspects.  
**(Caution, Attention, Proceed)**
- 42) TALQ Signal means \_\_\_\_\_ **(Two Aspect Lower Quadrant)**
- 43) MAUQ Stop Signals gives \_\_\_\_\_, \_\_\_\_\_ and \_\_\_\_\_ Aspects.  
**(Stop, Caution, Proceed)**
- 44) Closed circuits rakes BPC is valid for \_\_\_\_\_ or \_\_\_\_\_ **(7500 KMS , 35 days whichever is earlier)**
- 45) Premium rakes BPC is valid for \_\_\_\_\_ days. **(12 + 03)**
- 46) Material train BPC is valid for \_\_\_\_\_ days, subject to its revaluation once in \_\_\_\_\_ days by C & W staff. **(30 days, 07 days)**
- 47) Detailed working instructions about outlying siding is incorporated in \_\_\_\_\_  
**(Station Working Rules (SWR))**
- 48) Whenever a Signal, detecting points becomes defective the concern points are to be treated as \_\_\_\_\_. **(Non-Interlocked/Defective)**

- 49) When colour light Distant Signal is combined with Gate Signal the normal aspect of the Signal is \_\_\_\_\_. **(Most Restricted Aspect/Danger)**
- 50) Starter Signal protects \_\_\_\_\_ and \_\_\_\_\_. **(Points & fouling mark)**
- 51) Advance Signal protects \_\_\_\_\_. **(Block Section)**
- 52) Shunt Signal protects \_\_\_\_\_. **(Points)**
- 53) The authority to pass shunting permitted indicator when it becomes defective is \_\_\_\_\_.  
**(T.369 (3b) & Proceed Hand Signal at the foot of defective indicator)**
- 54) During train parting \_\_\_\_\_ Hand signal shall not be exhibited. **(Stop)**
- 55) During Signal failure the speed of the train on main line shall not exceed \_\_\_\_\_. **(15 KMPH)**
- 56) The fixed stop Signal the control the entry of a train into next block section is called \_\_\_\_\_. **(Last Stop Signal)**
- 57) VTO is painted with \_\_\_\_\_. **(Self illuminated Yellow colour)**
- 58) FSP is painted \_\_\_\_\_ alternatively. **(Self illuminated Yellow & Black colour)**
- 59) When trap Indicator is provided it shows \_\_\_\_\_ during day and \_\_\_\_\_ during night when trap is point is open condition. **(Red Target, Red Light)**
- 60) All originating Goods trains must have \_\_\_\_\_% of brake power. **(85% for conventional stock & 90% for other stock)**
- 61) Capital of India \_\_\_\_\_. **(New Delhi)**
- 62) RDSO Head Quarters \_\_\_\_\_. **(Lucknow)**
- 63) CCRS Head Quarters \_\_\_\_\_. **(Lucknow)**
- 64) Railway Board Head Quarters \_\_\_\_\_. **(New Delhi)**
- 65) CSO of SC Railway \_\_\_\_\_.
- 66) Sr. DOM of SC Division\_\_\_\_\_.

- 67) CPO of SC Railway \_\_\_\_\_.
- 68) Sr. DPO of SC division \_\_\_\_\_.
- 69) Mahatma Gandhiji was born on \_\_\_\_\_ at \_\_\_\_\_ in \_\_\_\_\_.  
**(02<sup>nd</sup> October , Porbandhar , Gujrat)**
- 70) SC Railway is formed on **(02<sup>nd</sup> October 1966)**
- 71) First Railway line in India was laid between \_\_\_\_\_ and \_\_\_\_\_ on \_\_\_\_\_.  
**(Mumbai and Thane 16<sup>th</sup> April 1853)**
- 72) There are \_\_\_\_\_ number of states and \_\_\_\_\_ number union territories in India. **(29, 07)**
- 73) The newly formed division of SC Railway are \_\_\_\_\_. **(Nanded & Guntur)**
- 74) There are \_\_\_\_\_ number of Zones and \_\_\_\_\_ number of divisions in Indian Railway. **(17 & 67)**
- 75) The Head of the Army is called \_\_\_\_\_. **(General)**
- 76) The Head of the Navy is called \_\_\_\_\_. **(Admiral)**
- 77) The Head of the Air–force is called \_\_\_\_\_. **(Air-Chief Marshal)**
- 78) \_\_\_\_\_ is the capital city of Punjab and Haryana. **(Chandigarh)**
- 79) Passenger amenities are provided basing on \_\_\_\_\_ of the station. **(Annual Income)**
- 80) Super fast trains with complete A.C accommodation do not have \_\_\_\_\_. **(General Coaches)**
- 81) Super fast train number starts with \_\_\_\_\_. **(12)**
- 82) Super fast trains are monitored by \_\_\_\_\_. **(Railway Board)**
- 83) In second class 3 tires sleeper coach \_\_\_\_\_ number of berths available. **(72)**
- 84) Before starting any train from an originating station Guard and Loco pilot shall ensure that \_\_\_\_\_ or \_\_\_\_\_ Caution order is given by SM. **(Divisional or Nil)**

- 85) Divisional Caution order number is \_\_\_\_\_. **(T.409)**
- 86) Authority to pass defective stop signal in “ON” position is \_\_\_\_\_. **( T.369 (3b) or T.369 (1) & Proceed Hand Signal at the foot of defective signal)**
- 87) To dispatch a train from un- signaled line when tangible authority to proceed is not there is \_\_\_\_\_. **(T.511- Starting Permit)**
- 88) \_\_\_\_\_ is the authority for admitting a train on un-signalized line. **(T.509 Or taking “Off” Calling “ON” Signal)**
- 89) Before attaching engine with or without coaches to a passenger train is to be stopped at \_\_\_\_\_ meters away from the formation. **(20)**
- 90) Station limits are available between \_\_\_\_\_ signals at block station. **(Two Outer most)**
- 91) The maximum permissible speed between SC-KZJ is \_\_\_\_\_. **(120 KMPH)**
- 92) The MPS between VKB-PRLI is \_\_\_\_\_. **(100)**
- 93) The section between SC-LPI is called \_\_\_\_\_. **(Automatic System)**
- 94) When advance starter becomes defective in automatic section \_\_\_\_\_ authority is given to Loco Pilot. **(T.369 (3b) & Caution Order 10 KMPH)**
- 95) A railway servant shall not take alcoholic drink, sedative, Narcotic or Stimulant \_\_\_\_\_ hours before the commencement of his duty. **(08 (eight))**
- 96) PLCT number UP \_\_\_\_\_ DOWN \_\_\_\_\_ **(T/C 1425 UP & T/D 1425 DN)**
- 97) Before detaching engine from the load the Guard and station staff shall \_\_\_\_\_ the train to avoid rolling. **(Secure as per G&SR 5.23)**
- 98) The person who ever is issued with private number sheet must have \_\_\_\_\_ number of sheets at a time. **(Two)**
- 99) The maximum permitted speed for shunting is \_\_\_\_\_. **(15 KMPH)**
- 100) When a through train passed without LV Board during day time or without tail lamp



- during night time \_\_\_\_\_ hand signal shall not be exhibited. **(Danger/Stop)**
- 101) When starter signal becomes defective before hand over T/369 (3b) memo the concerned points are to be \_\_\_\_\_. **(Correctly Set , Clamped & Padlocked)**
- 102) When a calling “ON” signal is given the maximum permissible speed is \_\_\_\_\_.  
**(Proceed Cautiously & be prepare to stop short of obstruction)**
- 103) The authority to be given to perform shunting is \_\_\_\_\_. **(T.806)**
- 104) Shunting operations are controlled by \_\_\_\_\_ or \_\_\_\_\_ or by \_\_\_\_\_.  
**(Fixed Signals, Hand Signals, Verbal Instruction)**
- 105) When shunt signal becomes defective \_\_\_\_\_ is the authority. **(T.369(3b) & Proceed Hand Signal)**
- 106) On Double line shunting is performed in block section with \_\_\_\_\_ or \_\_\_\_\_ authority. **(T.806 + Shunt Key or T.806 with private number (PN))**
- 107) \_\_\_\_\_ number of hand brakes are to be applied from \_\_\_\_\_ and \_\_\_\_\_ when a train without brake van is cancelled. **(09 (Nine), front & rear)**
- 108) \_\_\_\_\_ number of hand brakes are to be applied from \_\_\_\_\_ and \_\_\_\_\_ in addition to brake-van when a train is cancelled. **(06 (Six), front & rear)**
- 109) When I.B Signal becomes defective \_\_\_\_\_ authority is given to Loco Pilot before dispatching the train into block section. **(Paper Line Clear Ticket – UP T/C1425, DN T/D1425 & T.369 (3b) to pass IB at “ON”)**
- 110) MOSR of Railways \_\_\_\_\_.
- 111) There are \_\_\_\_\_ number of safety departments in Indian railways. **(05 (five))**
- 112) MPS means \_\_\_\_\_. **(Maximum Permissive Speed)**
- 113) CTR means \_\_\_\_\_. **(Combined Train Report)**
- 114) VG means \_\_\_\_\_. **(Vehicle Guidance)**
- 115) The vertical position of isolation handle means it is \_\_\_\_\_. **(DV-Working)**

- 116) The Horizontal position of isolation handle means \_\_\_\_\_. **(DV-Not Working)**
- 117) T-509 is issued for \_\_\_\_\_ and \_\_\_\_\_. **(For admitting a Train on obstruction line or un-signalized line )**
- 118) T-609 is issued during \_\_\_\_\_. **(Train Divided Working by Guard to Loco Pilot)**
- 119) \_\_\_\_\_ authority given to start a train where common starter is provided. **(T.512)**
- 120) Three long ( \_\_\_\_, \_\_\_\_, \_\_\_\_.) whistles means \_\_\_\_\_. **(Front fouling mark not cleared)**
- 121) Speaker of Lok- Sabha is \_\_\_\_\_.
- 122) G &SR stands for \_\_\_\_\_. **(General & Subsidiary Rules)**
- 123) \_\_\_\_\_ is empowered to change, alter or in-corporate subsidiary rules. **(Chief Operations Manager) (COM)**
- 124) General rules can be amended by \_\_\_\_\_. **(Railway Board)**
- 125) Slip siding is provided where gradient is \_\_\_\_\_. **(1 in 100)**
- 126) Catch siding is provided where gradient is \_\_\_\_\_. **(1 in 80)**
- 127) In-sufficient Air-Pressure/Vacuum Whistle Code is \_\_\_\_\_. **(Two Short, One Long)**
- 128) \_\_\_\_\_ is the authority for passing a starter signal at "ON" **(T.369 (3b) + Proceed Hand Signal at the foot of defective signal)**
- 129) \_\_\_\_\_ is the authority for passing LSS at "ON" **(T/C.1425 for UP & T/D.1425 for DOWN (Paper Line Clear Ticket))**
- 130) When double distant signal is provided the distant signal shows \_\_\_\_\_ and \_\_\_\_\_ Aspects **(Attention & Proceed)**

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## MATHEMATICS

1) Add the following:

a)  $16 \frac{2}{3} + 4 \frac{1}{2} + 5 \frac{1}{3} + 11 \frac{1}{4}$

$$\begin{array}{r} \frac{16 \times 3 + 2}{3} + \frac{4 \times 2 + 1}{2} + \frac{5 \times 3 + 1}{3} + \frac{11 \times 4 + 1}{4} \\ \hline \frac{48+2}{3} + \frac{8+1}{2} + \frac{15+1}{3} + \frac{44+1}{4} \\ \hline \frac{50}{3} + \frac{9}{2} + \frac{16}{3} + \frac{45}{4} \\ \hline (\therefore \text{LCM of } 3, 2, 3, 4 = 3 \times 2 \times 2 = 12) \\ \hline \frac{50 \times 4}{12} + \frac{6 \times 9}{12} + \frac{16 \times 4}{12} + \frac{45 \times 3}{12} \\ \hline = \frac{200 + 54 + 64 + 135}{12} \\ \hline = \frac{453}{12} = 37 \frac{9}{12} = 37 \frac{3}{4} \text{ ANSWER} \end{array}$$

B)  $1,23,851 + 78,276 + 9,599 + 832 + 48 + 8$

$$\begin{array}{r} 1,23,851 \\ 78,276 \\ 9,599 \\ 832 \\ 48 \\ + 8 \\ \hline \end{array}$$

**2,12,614 ANSWER**

C)  $10.7 + 12.18 + 35.005 + 0.0001$

$$\begin{array}{r} 10.7 \\ 12.18 \\ 35.005 \\ 00.0001 \\ \hline 57.8851 \text{ ANSWER} \end{array}$$

2) Multiply the following

a)  $12 \times 12 \times 12 \times 12 \times 12$

$$12 \times 12 = 144$$

$$144 \times 12 = 1728$$

$$1728 \times 12 = 20736$$

$$20736 \times 12 = \underline{248832} \text{ Answer}$$

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b)  $3.58 \times 12.743$

$$\begin{array}{r} 12.743 \\ \times 3.58 \\ \hline \end{array}$$

$$101944$$

$$63715X$$

$$38229XX$$

$$\underline{4571994}$$

**ANSWER IS 45.71994**

b)  $4 \frac{1}{4} \times 16$

$$= \frac{17}{4} \times 16 = 17 \times 4 = \underline{68} \text{ Answer}$$

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c)  $6 \frac{2}{3} \times 18$

$$= \frac{20}{3} \times 18 = 20 \times 6 = \underline{120} \text{ Answer}$$

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d)  $10 \times 10.8 \times 8$

$$= 10 \times 8 \times 10.8 = 80 \times 10.8 = 80 \times \frac{108}{10} = 8 \times 108 = \underline{864} \text{ Answer}$$

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3) Divide the following

a)  $\frac{10,000}{100} = \underline{100} \text{ Answer}$

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b)  $\frac{144}{12} = \underline{12} \text{ Answer}$

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c)  $\frac{7,500}{25} = \underline{300} \text{ Answer}$

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- 4) A train starts with 300 passengers from a station. In the first stage 70 passengers Entrained and 40 detrained. In the second stage 20 detrained. In the third stage 40 entrained when the train reached the destination, how many passengers will be there on the train.

Train started with passengers	= 300
1 <sup>st</sup> stage entrained	= + 70
	<b>370</b>
1 <sup>st</sup> stage detrained	= - 40
	<b>330</b>
2 <sup>nd</sup> stage detrained	= - 20
	<b>310</b>
3 <sup>rd</sup> stage entrained	= + 40
	<b>350</b>

No. of passengers on train after reaching destination  
**= 350 passengers Answer**

- 5) A train covers a distance of 400 KMS in 2 ½ hours. What is the average speed of the train?

01 Hour = 60 minutes , 2 ½ Hours. = 150 minutes

In 150 minutes train covers = 400 KMS

In 60 minutes train covers =  $\frac{60 \times 400}{150} = 160$  KMS

Average speed of the train is **160 KMPH Answer**

- 6) 10 men can complete a job in 15 days. In how many days men can complete the same job

10 Men completes the work in 15 days

15 Men completes the work in  $\frac{10 \times 15}{15} = 10$  days

15 Men completes the same work in 10 days Answer



7) A banana costs Rs. 2 ½ What is the cost of 3 ½ dozen bananas

$$\text{Rs. } 2 \frac{1}{2} = \text{Rs. } 2.50 \text{ p}$$

$$1 \text{ Rupee} = 100\text{ps}$$

$$\text{Rs. } 2 \frac{1}{2} = 200+50 = 250\text{ps}$$

$$1 \text{ dozen} = 12$$

$$3 \frac{1}{2} \text{ dozen} = \frac{07}{02} \times 12 = 42$$

$$1 \text{ Banana cost} = \text{Rs. } 2.50 \text{ ps}$$

$$42 \text{ Bananas cost} = \frac{42 \times 2.50}{100} = 105$$

$$\text{Cost of } 3 \frac{1}{2} \text{ dozen Bananas} = \text{Rs. } 105/- \text{ Answer}$$

8. The distance between SC and NDLS is 1675 KMS. A train running at 100 KMPH with out stopping will cover the distance in how much of time

$$\text{Distance between SC- NDLS} = 1675 \text{ KMS}$$

$$\text{Speed of the train} = 100 \text{ KMPH}$$

$$\text{Time} = \frac{\text{Distance}}{\text{Speed}}$$

$$1 \text{ Hour} = 60 \text{ minutes}$$

$$100 \text{ KMPH} - 60 \text{ Minutes}$$

$$1675 \text{ KMS} \quad \frac{1675 \times 60}{100} = 1005 \text{ Minutes}$$

$$60 \text{ minutes} - 1 \text{ Hour}$$

$$1005 \text{ minutes} - \frac{1005}{60} = 16 \text{ Hours } 45 \text{ minutes}$$

$$\text{Time taken to cover } 1675 \text{ KMS} = 16 \text{ Hours } 45 \text{ minutes}$$

$$\text{16 Hours 45 minutes or } 16 \frac{3}{4} \text{ Hours Answer}$$

9. A station master has issued 25 tickets of Rs. 15 each and 15 tickets of Rs.45 each. How much amount will he collect by the sale of tickets?

$$1 \text{ ticket} = \text{Rs. } 15$$

$$25 \text{ tickets} = 25 \times 15 = 375/- \text{ Rs. } 375$$

$$1 \text{ ticket} = \text{Rs. } 45$$

$$15 \text{ tickets} = 15 \times 45 = 675/- \text{ Rs. } 675$$

$$\begin{aligned} \text{Total Amount collected by station master} &= \text{Rs. } 375 + \text{Rs } 675 \\ &= \text{Rs. } 1050 \text{ Answer} \end{aligned}$$





10. An Express Guard receives gross salary of Rs. 48,000/- per month. In that contribution towards CGIS is Rs. 30/- PF Rs. 400/- CCS Rs. 1500/-, CCS loan recovery Rs. 2500/-Quarter's rent Rs. 750/- Electricity Rs. 250/-LIC premium Rs. 2675/- what is the net salary will be received?

Ans: Gross salary of Express Guard = Rs. 48000/-  
Contribution towards CGIS - Rs. 30.00  
PF - Rs. 4000.00  
CCS - Rs. 1500.00  
CCS Loan - Rs. 2500.00  
Qts. Rent - Rs. 750.00  
Ele. Bill - Rs. 250.00  
LIC - Rs. 2675.00

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Total Contribution - Rs. **11705.00**

Net Salary = Gross Salary- Total Contribution = 48,000 - 11705  
= Rs. 36,295/-

Net Salary received by Express Guard = **Rs. 63,295/-**

