#### **SOUTH CENTRAL RAILWAY**

## TRACTION ROLLING STOCK OPERATIONS SECUNDERABAD



# QUESTION BANK For CHIEF LOCO INSPECTORS SELECTION

Sr. DIVISIONAL
ELECTRICAL ENGINEER
SECUNDERABAD

#### INDEX

SI. No.	Content	Page No.
1	Model Question Paper	1-5
2	Descriptive questions on Technical	6-9
3	Objective questions on Technical	10-20
4	Objective questions on 3Ø Loco	11-35
5	Descriptive questions on General subject	36-41
6	Descriptive questions on G & SR	42-44
7	Objective questions on G & SR	45-52
8	Questions on Official Language	53
9	Objective questions on D & AR	54-60

### Model Question Paper Written Examination for selection of Chief Loco Inspector SC Division

Max. Marks:100 Time: 3 Hrs.

#### **Instructions**:

The question paper is divided into 2 groups (A&B). The candidates are advised to attempt both the Groups.

#### Group - A

### I. Answer any 10 of the following. All the questions will carry equal marks.

10x5 = 50

- 1 Draw a neat sketch of pantograph
- Write the troubleshooting for **external fault** indication in static converter provided locos?
- Write the No. of all standard form forms used in D&AR
- 4 How many types of switches provided in electric locomotives and explain each of them
- 5 Write about exchanging of alright signals
- a) What are the occasions that auto-regression of GR takes place write with trouble shooting?
  - b) How many ways relay Q118 will energies?
- 7 How you will improve the 'C' grade loco pilot to higher grades.
- 8 What is the procedure to impose minor penalty
- 9 a) Distinguish between Excluding and Continuous category
  - b) Distinguish between Supernumerary posts and Temporary post
  - c) Write the entitlement restrictions of various passes to running staff
- a) List out the categories under HOER and indicate rostered hours of each category?
  - b)Expand the following
    - 1) RITES 2) IRIEEN 3) COFMOW 4) RDSO 5) CORE 6) FOIS 7) COIS 8) IVRS 9) CRIS 10) IRISET
  - c) How many employees are required if 2 members working in a shift of 12 hrs roster and 8 hrs roster
- Being a first official to the accident spot of train passed a stop signal at 'ON' how you will deal the situation.
- 12 a) Name of the Articles of constitution under which provisions for official language are made
  - b) Explain the Rule 12 of the official language Rules, 1976.

#### Group - B

### II. Answer all the questions. All questions will carry equal marks. 20X1=20

1. Ele	ectrolyte a) H <sub>2</sub> S(		n cell is		_	b) HCL	(	)
	c) Dilut		$SO_4$			d) H <sub>2</sub> o		
2. If t	wo sing a) san	-	es applie	es at a t	ime, the	route will be b) different	(	)
	/	t permit	ted			d) a or b		
3. In	a) 24	V, 70/7	5W	e rating	g of bulb	b) 24V, 90/100 W	(	)
4 .Of	c) 11 ficial la	0V, 70/ nguage				d) 110V, 90/100 W	(	)
	a) 16 <sup>t</sup>	h Septer h Septer	mber			b) 15 <sup>th</sup> September d) 14 <sup>th</sup> September		,
5. No			C2A is			1) 424	(	)
	a) A2 c) A3					b) A24 d) A48		
6. A	a) Un		ncidents		dicative	_ classification of accident. accidents uipment failure	(	)
7. Ni	umber o	f days c	an be g	ranted a	as quara	ntine leave.	(	)
	a) 15	b) 2	(0 c)	25	d) this l	eave is not existing		
8. Lo					nder d) 70 %	% of disablement.	(	)
9. S-			em			n-stocked item ort tender	(	)
10		•			/	tion facility between two blo	ock stati	ions.
	a) Ax	le coun to telep	ters			<ul><li>b) track circuit</li><li>d) block telephone</li></ul>	(	)
11.Fu	isee who	en lighte	ed will d	lisplay	bright re	ed flame, which will last for		Minutes
	A: C:	10 to 3 to 5		B: D:	8 to 1 5 to 7		(	)
12.		-	_			Il be applied before detaching gradient is steeper than 1/260	_	E of a train
	A:	12	B:	16	ore the g	station is steeper than 1/200	(	)
	C:	18	D:	06				
13.		•		ied by		marker		
	A:	A	B:	C			(	)
	C:	G	D:	T				

14.Ho	station limits where the gradient is station BV + 12 wagons B:	applied before detaching TE of a train in eeper than 1/260 ( ) BV + 06 wagons BV + 18 wagons	
15.	In the event of engine Horns failure, driver is unable to repair, then A: Work onwards on same condit C: Ask PCO number		
16.	One of the following is not a personal A: Red flag B: Green C: whistle D: Working Time	flag ( )	
17.	On telephone pole brackets, the wire A: Deputy control line C: Power controller line D:	B: Section control line ( )	
18. in fron	On single line immediately after the ant shall be setline.  A: For the loop line  C: Against occupied line D:		ıd
19.	On Electrified territory the telephone connects to A: Power controller C: Commercial controller	e connection provided on electric Masts,  ( ) B: Traction power controller D: Deputy controller	
20.	Normally, the material train shall be A: Night C: Foggy and tempteous weather	B: Day	

#### III. Fill in the blanks. All questions will carry equal marks. 30x1=30

1.	If any fault exists Aux.power circuit of microprocessor loco, that will be indicated through
2.	RGEB2 connected on pipe line
3.	The speed of the relief engine during night time in absolute block system
4.	Authority to pass advance starter in double line automatic system
5.	Beyond years age son not eligible for privilege pass.
6.	Number of post retirement passes for group-'C' 33 years service completed retired employee is
7.	is suspension revoked standard form.
8.	A retired Railway employee shall not have morethan cases to act as defence helper
9.	The running staff roster under HOER comes under
10.	The intensive roster staff working hours per day will be
11.	The workmen compensation act in force with effect from
12.	Expand the PNM
13.	Maternity leave will be sanctioned for days for employees.
14.	days shall be admissible for leave encashment.
15.	A Railway employee after retirement may permit days to retain the Railway quarters.
16.	Expand LHAP
17.	After ordering within minutes the ART should leave.
18.	The running staffnational holidays may be availed in a calendar year
19.	The abbreviation of RDSO
20.	The running staff member after attaining of 45 yrs. age should undergo for PME once in years.
21.	Lower pantograph caution order will be given during
22.	When 'B' conk is defective
23.	In ABCB loco, coil is used for closing the DJ
24.	While working with 'A' ending trouble loco, relay should not be wedged
25.	In WAG7 loco, VEULs energisation and time lag of last CP is maintained by
26.	Improper working of ARNO will be known by tripping failure
27.	If C105 not closed, try by changing switch to '3' position
28.	To avoid wheel skidding, to be pressed, while applying A9

- 29. To create, maintain & destroy the vacuum in dual brake loco, \_\_\_\_\_valve is used
- 30. If L1 or L6 not closed, \_\_\_\_ traction failure will be experienced

#### **Question Bank for Chief Loco Inspector**

#### **SC Division**

Sub: Technical Descriptive

- 1 What are the duties of loco inspector (Ele.Traction)?
- 2 Draw a neat sketch of pantograph
- 3 Draw a neat sketch of cantilever assembly.
- 4 Explain the AC locomotive maintenance schedule for freight locos?
- 5 Explain the AC locomotive maintenance schedule for coaching locos?
- What are current ratings in different AC locomotives of WAM4, WAG7 and WAG-5?
- 7 Draw the circuit diagram of DJ control circuit of static converter provided locos.
- 8 Draw the circuit diagram of DJ control circuit of vacuum circuit breaker provided locos.
- 9 Draw the circuit diagram of DJ control circuit of air blast circuit breaker provided loco.
- 10 Explain how the speed will increase during field weakening?
- What the mechanism provided mechanically for raising and lowering of pantograph. Explain with diagram
- 12 How many types of switches provided in electric locomotives and explain each of them.
- 13 Explain the parts of electro magnetic contractor and their function
- Explain the parts of electro pneumatic contractor and their function How many types of contactors are using in electric locomotives? Explain them briefly.
- 15 How many types of relays are using in electric locomotives? Explain them briefly.
- 16 Explain the importance of each part provided in pantograph.
- Explain about the mechanism provided pneumatically to raise and lower the pantograph with diagram
- Write the troubleshooting for permanent and intermittent acting of QOP1?
- 19 Draw circuit diagram of tap changer circuit and explain how progression of GR takes place.
- Write the troubleshooting for permanent and intermittent acting of QOP2?
- Write the troubleshooting for permanent and intermittent acting of QOA?
- 21 Write the troubleshooting for **external fault** in static converter provided locos?
- Write the troubleshooting for QLM alone dropping.
- Write the troubleshooting for QLM dropping along with QOP1 & QRSI1.
- Write the troubleshooting for acting of ORSI1.
- 25 What are the occasions for dropping relay QLA and write the troubleshooting.
- During RB application explain how IP valve (electrical) is maintained in energized condition and how BP pressure drops if OHE fails, explain with circuit diagram.
- 27 During RB how the traction motors are connected to RSI block and why?
- How will you troubleshoot if DJ trips with QOA acting and smoke from switch panel.
- 29 What is LTBA? How will you troubleshoot if CCBA repeatedly melting.
- What are the protective equipment provided in RB and explain them their function?
- What are the occasions that auto-regression of GR takes place write with trouble shooting?
- Write troubleshooting for melting of CCA even with HOBA Off.
- What are the reasons for wheel skidding and write preventive measures?
- What are the items to be checked after a fire accident in locomotive?
- 35 Draw a pneumatic circuit of SA-9
- 36 Draw a pneumatic circuit of BP charging and explain how BP Pressure will be charged
- 37 Draw neatly the MTDJ control and explain the importance of safety relays on the circuit?
- 38 If MVMT1 or 2 doesn't start, what will happen in the control circuit? Explain with a

- diagram.
- 39 During RB working how the field winding is excited. Explain with a sketch?
- 40 What is the significance of QVLSOL relay in MU locos? Explain with a circuit.
- 41 Explain the working system of SA9 in single loco and MU locos.
- 42 List out the preventive maintenance schedule and their periodicity.
- Write the items which will cover in trip inspection of A.C.Loco.
- What are all the latest technological developments available in electric locomotive? Explain with merits of such developments.
- What is the difference between Rheostatic braking & Regenerative braking? Where regenerative braking is used. Explain with a block diagram
- What is the difference between primary suspension & secondary suspension? Explain with illustration.
- What is the difference between wheel slipping and wheel skidding and when they will be experienced? Why the skidded locos are not permitted on line?
- 48 What are the various parameters recorded during IC schedule on a WAM4 locomotive?
- 49 Draw the power circuit of WAG-7 and indicate ratings of various protective devices
- 50 Explain the procedure for checking leakage in BP circuit & FP circuit.
- 51 What are the items to examine during Pantograph entanglement?
- What are reasons for MR Pressure not building?
- Write the procedure of vacuum blockage and leakage tests.
- How synchronization of notches will be in done MU locos? Explain with sketch.
- Write about WAP-4 Bogie?
- Write about WAG-7 Bogie?
- Write about WAG-5 Simplex Bogie?
- 63 Why Low tension test is needed and write the procedure of conducting LT test?
- Write the ill effects if DJ not tripped at Neutral section?
- Write about WAG-7 Bogie?
- What are readings to be taken incase of loco derailment?
- 67 Explain the working of brake system employing a) friction braking b) Electric braking
- Write short notes on Pantograph, Tap Changer and Silicon Rectifier
- 69 In MU operation how the MTDJ of rear loco getting feed from Leading loco. explain with circuit diagram
- 70 What are the loco defects will cause wheel skidding?
- 71 What is the Safety items provided at under frame of locomotives?
- 72 Explain the working principle of ARNO.
- 73 Explain the working C-2 Relay valve.
- What is the function of RPS in Power Circuit and why Inductive shuts are provided in Electric Locomotive?
- Name the relays & pressure switches in AFL circuit and indicate their function with diagram?
- 76 Explain how Power block will be taken?
- 77 What are equipments to be examined in under gearing of locomotive?
- 78 What are the items to be checked in a derailed loco?
- 78 What is the arbitration of providing an ALP in AC locos
- 79 What is LT Test and explain how it will be conducted?
- 80 Draw the feeding circuit diagram of traction sub station.
- 81 What are the silent features of thread breaking unit?
- What are the items to be checked in under gearing by the crew while taking over loco from shed.
- What are the newly provided and removed items in locos which are replaced SIV in

- place of ARNO?
- What are the lamps provided on the panel of Siemen's make SIV unit and explain them briefly?
- Write the procedure of trouble shooting when "external fault lamp glows" on SIV unit?
- Write the procedure of trouble shooting when "internal fault lamp glows" on SIV unit?
- Write the procedure of trouble shooting when "OHE out of range lamp glows" on SIV unit and duties of loco pilot?
- Write the trouble shooting procedure with neat sketch when SIV not picking up?
- 89 Draw the neat diagram of SIV provided DJ control circuit (ABCB) and name its parts?
- 90 Draw the neat diagram of SIV provided DJ control circuit (VCB)and name its parts?
- Write all the tripping failures in a tabular column with trouble, abnormal sign and probable causes for SIV provided ABCB provided conventional loco?
- Write all the tripping failures in a tabular column with trouble, abnormal sign and probable causes for SIV provided VCB provided conventional loco?
- 93 What are the main advantages of SIV comparing with ARNO?
- Write the procedure of trouble shooting for ICDJ in MPFDCS provided conventional locos?
- Write the procedure of trouble shooting for TLTE in MPFDCS provided conventional locos?
- 96 Draw the power circuit of WAG 9 loco
- What are the different three phase auxiliary motors provided in three phase loco, write their locations, purpose and their circuit breakers?
- 98 Explain about batteries in three phase loco
- 99 Narrate about VCD.
- 100 What are the different brakes provided in three phase loco?
- 101 How to drive the loco?
- 102 What will happen if emergency stop button is pressed and how will you re-set it?
- 103 How to change the cab?
- How to pass the neutral section?
- 105 If F0301P1 (Disturbance in traction converter No.2) is appeared on screen how will you trouble shoot and work further?

106

- How load sharing is done if anyone of the auxiliary converter is isolated? 12.Explain the bogie of WAG 9
- 108 Explain about pantograph and it's working 14. Explain the working of parking brake
- 109 If both side head lights are not working from cab2 how will you trouble shoot?
- What are the different single phase auxiliary motors provided in three phase loco, write their locations, purpose and their circuit breakers?
- What are the items provided in machine room No.1?
- 112 Explain about harmonic filter
- 113 How to work the train in PTDC mode in knorr brake loco?
- 114 What are the items provided in panel 'B'
- 115 What are the occasions to switch OFF control electronics?
- 116 Explain the working of sanders in three phase loco
- 117 How to switch OFF control electronics?
- How to pass the neutral section with MU?
- How to check the loco while taking over charge at Crew changing point?
- 120 How to do the braking?
- 121 Explain about potential transformer
- 122 Explain the bogie of WAP 5

- 123 What do you mean by service penalty brakes and how will you reset it?
- Where auxiliary manifold is located and what are the items provided in this?
- 125 What are the advantages of three phase loco?
- 126 Draw the power circuit of modified WAP 7 loco
- 127 If train is parted what will happen in the loco and how to work further?
- 128 What are the items provided in panel 'A'
- 129 Explain about cooling concept in three phase loco
- 130 What are the working items in non-working cab?
- 131 How to re set ASS make MCS?
- How transformer is protected from temperature?
- 133 What happens if alarm chain is pulled and what will you do?
- 134 Explain about fire protection in the locomotive 41. How to energise the loco?
- 135 Explain about self hold mode
- 136 How to perform shunting with three phase loco? 44. Explain about memotel.
- 137 How loco is protected from less or no voltage?
- 138 If F0801P1 (Disturbance in auxiliary converter No.3) is appeared on screen how will you trouble shoot and work further?
- 139 How to make engine on train with three phase loco?
- 140 How to check the DDS?
- 141 If LSCE is glowing on run what you will do?
- 142 What is the maximum braking and tractive effort values of various three phase locos?
- 143 Explain the bogie of WAP 7
- 144 How to check the loco brake power?
- 145 What are the items provided in machine room No.2?
- 146 Explain the working of direct brake
- 147 If F0701P1 (Disturbance in auxiliary converter No.2) is appeared on screen how will you trouble shoot and work further?
- 148 If throttle is not working how to work the train?
- 149 How to re-set MG make MCS?
- 150 Where air brake manifold is located and what are the items provided in this?
- 151 How to work as banker?
- 152 What are the items provided in panel 'C',
- 153 If both side head lights are not working from cab 1 how will you trouble shoot?
- 154 Explain the bogie of WAP 5
- 155 How proportional brakes will work in three phase loco?
- 156 If F0601P1 (Disturbance in auxiliary converter No.1) is appeared on screen how will you trouble shoot and work further?
- 157 Explain about constant speed control feature in the loco
- 158 Draw the power circuit of WAP 5 loco
- 159 What are the sub systems are provided in the loco?
- 160 What are the differences between priority 1 and priority 2 messages?
- 161 If F0201P1 (Disturbance in traction converter No.1 is appeared on screen how will you trouble shoot and work further?
- 166 What is trailing mode and how to work in this mode?
- 167 What are the items provided in panel 'D'
- 168 How to move the loco as dead?
- 169 What are the items in pneumatic panel?
- 170 Explain about mode switch of knorr brake loco
- What are the oil points available for three phase loco?

### Question Bank for Chief Loco Inspector <a href="SC Division">SC Division</a>

Sub: Technical Objective

1.	Setting of QLM relay in WAG7 loco is amps against a power circuit current
2	of
2.	CT ratio of RSILM in WAG5 loco is
3.	One end of QOA relay is connected to and the other end to
4.	Power rating of WAG7 main transformer is and for WAG5 is
5.	DJ will close, when QPDJ pressure is at Kg/cm2 and will trip when it comes to
	Kg. /cm2.
6.	Which relay ensures that DJ is closed only on no load?
7.	The wheel diameter on new Mm and permitted up to mm
8.	Permissible root wear is mm and the flange wear is mm.
9.	Setting of QD relay in WAG7 loco is A
10.	Notch by notch progression is ensured by Relay
11.	SMGR control circuit is protected from earth fault by control fuse and the fuse
	rating is
12.	Schedule is carried out on electric locomotive at the nominated workshops.
13.	Type of motor used in WAG9 locos for traction purpose
14.	Rating of each battery in locomotive is and the total voltage is V
15.	LSDJ flickering is the symptom of
16.	Q-30 relay is termed as and it will cause tripping of DJ through
17.	Continuous current rating of TAO659 TM isamps and 10 min. rating is
10	
18.	Continuous current rating of Hitachi TM isamps and 10 min. rating is
19.	Conjunction brakes on locos gets applied through valve
20.	
20.	Brake application through A-9, BC pressure goes up tokg/cm2 inseconds.
21.	Permissible piston stroke on BC cylinders during brake application is
22.	Type of cut out cock used in bogie brake isolation is
	<i>,</i> 1
23.	Q20 is termed as
24.	Auto regression will take place when DJ is tripped on notches, through
25.	relay QCVAR connected across & terminals.
25. 26.	
27.	Relay QCVAR picks up at
	Setting of P2 pressure switch in AFL circuit is
28.	will come into circuit.
29.	
	Sequential closing of CGRs achieved througharrangement.
30.	Tap changer taps are making & braking on no load is ensured by
31.	Transition time of GR contracts from one tap to another tap is
32.	If GR stuck up in ½ notch due to any reason for more than sec. then
33.	Expand the abbreviation ESMON
34.	Medha make ESMON module will have a short term memory ofhours
٥	and a long term memory of
35.	AAL make ESMON module is termed as and its short term memory is

	•••••
36.	SEC is the emergency consumed by a locomotive forGT.KM
37.	Use of Rheostatic braking will minimize on brake gear.
38.	Change over of working etween braking traction takes place by
39.	On load operation of reversors & CTFs are avoided by relay
40.	Relay QE monitors thecurrent and QF relay monitors thecurrent.
41.	If CCLS fused lamps will not glow and valves will not energise.
42.	To avoid wheel slipping at the time of starting on heavy loaded trainsswitch is put on to energiserelay
43.	Locos fitted with static inverters if external fault indication display on SI unit, then check forequipments other than auxiliaries.
44.	Time to build upkg/cm2 by MCP in normal working condition isminutes.
45.	Time delay in closing contractors C107, C105 & C106 issec.
46.	C108 Contactor controls Motor
47.	Buffer height limits
48.	Rail guard height is
49.	In twin Beam headlight the rating of bulb is
50.	In a twin beam Head light, what is the voltage of bulb in "dimmer"
	Operation.
51.	What is the advantage of twin beam headlight system
52.	What is class of Insulation specified for 180 degree temperature:
53.	At the time of wheel slip, the object of sanders is to
54.	Specific gravity of electrolyte is measured using:
55.	DC series motor is used for traction purpose because
56.	Horse power of a TAO 659 traction motor is
57.	Battery negative is connected to loco body through
58.	The speed control method used in AC locomotive
59.	KVA rating of TFP used in WAG7 & WAP4 locos is
60.	Hitachi Traction motor is a _ pole motor
61.	What type of bearing is used in WAG7 loco axle box?
62.	The time interval between IA and IB schedule of WAG5 loco isdays
63.	The lubricant used in suspension bearing of a TAO motor is
64.	Gear ratio of WAG7 loco is
65.	Max.starting torque offered by WAG7 loco is
66.	Purpose of inter pole in the traction motor.

67.	The rating of ATFEX is I	ζVA.	
68.	RHOBA resistance is ohms		
69.	In WAG5A loco the FP leak hole drop is allowe	d up to	
70.	In WAG5A loco the standard setting of QPDJ cu	it in/cut out _	<del> </del>
71.	In WAP4 loco the standard setting of RGEB 2 co	ut in/cut out _	
72.	In WAP4 loco the Duplex check valve is set at _		_
73.	Pinion and bull gear ratio of a WAG 7 loco is		
74.	Capacity of battery provided in electric loco is_		amph
75.	Bibby Coupling is provided to couple		
76.	The class of insulation used in Hitachi Traction		
77.	The setting value of QD relays DC amps p	ick up D	C amps drop out
78.	The ratio of RSILM in WAG7 is	_	
79.	The ratio of TFILM in WAG7 is	_	
80.	What is the Gear ratio of a wheel set in WAP4 _		
81.	What is the diameter of an Axle?		
82.	What is the height of the buffer?		
83.	What is the height of the rail guard	?	
84.	Periodicity of AOH schedule for freight locos		
85.	Periodicity of IOH schedule for freight locos		
86.	Periodicity of POH schedule for freight locos		
87.	Periodicity of IC schedule for freight locos		
88.	Periodicity of IB schedule for freight locos	_	
89.	Periodicity of POH schedule for coaching locos_		
90.	Periodicity of IOH schedule for coaching locos_		
91.	Periodicity of AOH schedule for coaching locos		
92.	Periodicity of IC schedule for coaching locos		
93.	Periodicity of IB schedule for coaching locos		
94.	Transformer breather used for		
95.	The HP of MVSL is		_
96.	The maximum rpm of a Hitachi Traction Motor		
97.	The position of CGR contactors in between respectively	notches are -	, and
98.	Main transformer is havingnumber of taps tot	ally.	
99.	Flickering of LSDJ is called tripping t	ailure.	
	. In WAG-5, If MVSL-1 is burnt work the train by		
101	. If C-118 is closing ,but DJ not closing then keep	_&an	d try
102	. Poly glass material projecting from vent mesh of TM	I is called as	
	. Time required to travel for GR from 0-32 notches is		
104	. When there is Operation 'O' trouble, clear the section	n by placing	

105. MPS can be operated from notch for field weakening
106. Q46 energises when
107. Feed pipe is painted with colour.
108. Purpose of RPS is
109. Whenever QCVAR becomes defective, starting phase to ARNO to be cut off by de-energizing
110. If C-105 is not closed, failure will be experienced
111. After closing DJ, if C-118 coil not de-energised, it leads to
112. Permanent de-energisation of Q52 leads to traction failure
113. When DJ is opened on notches auto regression takes place by relay.
114. If MVMT-1 is defective,tripping failure will be experienced
115. If MVSI-1 is defective, tripping failure will be experienced
116. Maximum RB Current rating for WAG-5 is Amps
117. In WAG-5 loco, maximum MR pressure is Kg/cm <sup>2</sup>
118. Melting of CCPT causes tripping failure.
119. When ZPV on '3', contactor will isolate & PV will isolate
120. Auto-regression on 1 <sup>st</sup> notch with LSP due to
121. Earth fault in SL 1 causes
122. Direct auxiliaries are provided to protect ARNO from
123. OHE of AC Traction is fed by
124. Volt meter is connected in to the circuit
125. Autotransformer is used to get voltages in our locomotive.
126. Resistance is proportional to cross sectional area of the conductor.
127. In electric traction loco, Traction motors are type
128. Rate of flow of current per sec. in the circuit is called
129. Electrolyte used in cells of electric loco battery is
130. Intentional bonding is done through
131. In air flow indicator white needle called as and red needle called as
132. DC Motor working principle
133. When Q44 is wedged, to be avoided
134. Earth fault in MVSL-1 causes tripping of DJ through relay.
135. In modified panto circuit, when DJ locked mechanically, then Pantograph
136. Pantograph is mounted on number of base insulators
137. Single bottle vertical type VCB control circuit will have number of branches
138. In VCB loco, if DJ trips just before releasing BLRDJ, concludeI/L is defective
139. For Twin pipe air brake system & air hoses to be coupled.
140. TFWA feeds Volts of supply to ARNO
141. ET-1 and ET-2 are to protect against
142. QRSI will not allow more than Amps. in WAG-5 loco.

143.	When Q20 is energised, lamp will glow.
144.	In modified WAG-5 loco, U-1 is connected to Traction Motor
145.	QOP is provided in circuit
146.	RF resistances are cooled by
147.	To test the condition of a fuse, is provided
148.	LSB controlling relay is
149.	If CHBA fails lamp will glow
150.	If Q51 energises, takes place
151.	When HCP is kept on '2' position, coil gets energised.
152.	QWC relay remains energised as long as is pressed when GR is on '0' or 1 st notch
	then, automatically de nergises after 10th notch in WAG7 locomotive.
153.	When PSA is pressed from Cab-1, VESA No &will energise.
154.	While starting loaded train, & switches to be pressed to avoid QD action
155.	Purpose of staggering arrangement of OHE contact wire is
156.	In WAG7 loco, location of C2B relay valve is
157.	Ifrelay de-energies, loco brakes will not release by pressing PVEF.
158.	Earth fault in Q119 coil causes
159.	In WAP4 loco, to isolate TM 4 switch to be kept on position
160.	In electrified section, when ATD is provided only at one end, it is known astype of OHE
161.	In DC-DC converter, twin beam headlight provided with lamps/ bulbs
162.	Current rating when MVRH is isolated is Amps in WAG 5 locomotive.
163.	Defective QCVAR causes tripping failure.
164.	In Static converter loco,3Ø E.M. contactor for MVRF is
165.	If any un-loader valve is stuck up and discharging air, trouble can over come by
166.	In WAG5, if duplex check valve is defective will not work
167.	If rear cab BL is not locked properly, it leads to
168.	If QPH is defective, work the train by keeping onposition and duly follow necessary precautions
169.	Earth fault in CHBA causes relay to energise
170.	In microprocessor loco, fault, if any, will be indicated through
171.	During RB, earth fault in RF resistances cause relay to energise in WAG 7 loco.
172.	When A9 is applied to emergency, the pressure admitted to loco brake cylinder is
173.	In WAG5, hand brake will apply brake blocks of wheels
174.	In Static converter loco, should not be wedged under any circumstances
175.	For quick recharging of BP pressure, switch to be pressed
176.	In Microprocessor loco, during ICDJ fuses to be checked
177.	Puncture of diode in RSI block causes lamp to glow
178.	Total number of roof bars including hand operated Roof Bars in WAP-4 loco is

179.	RGR is connected between
180.	Airflow measuring valve is connected between &
181.	In Static converter loco, in VCB type DJ control circuit, C118 I/L is replaced with _
182.	'NO TENSION' is experienced due to defects on loco roof
183.	If Q30 N/O I/L is defective relay can be wedged to work the train further
184.	If LSCHBA glows on run, & to be checked.
185.	Q44 is called as relay
186.	If twin beam headlight is not working, switch position to be changed
187.	Notch by notch progression or regression is done by relay
188.	While wedging AC 3Ø contactor, ensure
189.	Defective Q 50 causes traction failure
190.	If RSI –1 draws over current, DJ will trip through relay
191.	Setting of SS-1 is kg /cm <sup>2</sup>
192.	During blockage test, vacuum should not create more than cm, in train pipe
193.	In WAG5, to isolate TM1, bit to be wedged
194.	Pilot lamps does not glow, when conk disconnected
195.	Operation B part - I trouble is caused due to even though HVSL 1&2 and
	HPH kept on 3 position
196.	Defective Q30 causes
197.	When CCA melting repeatedly even with HOBA in OFF position
198.	While operating MP to Traction side, from Braking side
199.	C-118 closing in LT, but not closing in HT. Reason may be
200.	Earth fault in QCVAR causes
	If L3 opens on run, will happen
202.	In WAM 4P-6P loco, if HPH kept on '0', Current rating to be followed
203.	On dual brake loco, if CCLS is melting even HOBA in OFF, to avoid TLTE,
204.	Traction motor starting current for WAG-7 Loco is
205.	Precautions while working with Manual operation of GR
206.	If LPAR glowing on run along with buzzer check
207.	Short circuit in TFWR causes
208.	When Head light is failed, speed of the train should not be more thanKmph
209.	Earth fault in MVSI-1 causes
210.	When MP moved from Braking to Traction, if TLTE experienced, check
211.	Reason for Operation 'A' ending part – II is due to
	While closing DJ, earth fault in TFWA causes
213.	QD-2 is connected between & Traction Motors in WAP-4 loco
	QD actions are
	MR-3 pressure is admitted into brake pipe through valve in WAG-5
216.	Earth fault in C-118 coil causes

217.	On VCB loco, defective C-118 N/O I/L causes
218.	While working MU, defect in the rear loco will be noticed by
219.	During MU operation, if CCPT melting repeatedly in leading Loco,
220.	Pantograph is not raising due to
221.	Location of Pantograph lowering spring is
222.	When MPJ 2 is kept in forward direction,
223.	If pantograph raising spring is broken and fallen on loco roof, it causes
224.	While passing neutral section, ensure
225.	While working MU, if leading Loco GR is defective, it causes
226.	Normally, starting phase to ARNO cut off automatically by
227.	Cut in the TFWA winding causes
228.	The electrical braking is effected by contactors
229.	The total No. of auxiliary motors on WAG-5 dual brake loco are
230.	If Dropper is found hanging, the immediate duty is
231.	RSI-2 block supplies current to in WAP-4 loco
232.	On opening BLVMT blowers will are not stopping due to
233.	ICDJ trouble will be experienced due to fuses melting
234.	If 'C' conk is slack will not work.
235.	Proportional working can be isolated by closing COC
236.	Speed of the train while driving from rear cab by Driver is
237.	Purpose of VA-1 release valve in WAG-5 loco is
238.	If auto regression of GR experiences & exhausters stops working, check
239.	Appropriate air pressure in the system is maintained by
240.	HS-4 pressure should be always between
241.	Earth fault in MVRF during RB causes energising of in WAG 7 locomotive
242.	A34 terminal cut causes traction failure.
243.	Loco earthing switch is
244.	Ignoring of banding failure takes place in Traction Motor may leads to
245.	Slipped pinion causes
246.	When locked axle takes place in mid section
247.	In WAG 5, if HMCS-1 is placed on '3' position,
248.	Purpose of A-1 Differential valve is
249.	On run heavy flashes are noticed from Panto
250.	Breaking of roof insulator or base insulator leads to
251.	When there is Earth fault in VEPT-1 coil
252.	Procedure of isolating RSI 2 in WAG5 loco is
253.	In WAG 7 loco, QD 2 is connected between & Traction motors
254.	WAP4 Loco will have type of bogie
255.	In WAG 7 loco if RSI2 exceeds an over current of

256. If only 6 Shunting contactors are provided in WAG-5, they are meant for
257. LSB glows and extinguishes when MP is placed on 'P' due to
258. RF resistances are provided
259. Location of ATFEX in WAG-5 is
260. On releasing SA9, pressure in the brake Cylinders will escape through _
261. On notches DJ tripped. After closing DJ, if TLTE is experienced,
262. The purpose of QTD101 relay isin static converter locomotive
263. Additional fuse provided in loco is
264. Setting of QLM in WAG 5 loco is Amps.
265. Total number of DC motors on WAG5 loco are
266. RSI-2 block supplies Current to in WAP4 loco
267. In WAG7 loco maximum number of traction motors can be Isolated at one time is
268. Minimum pressure required for energising of any electro valve in loco is kg/cm²
269. Working pressure of SMGR kg/cm <sup>2</sup>
270. GR Full notch Protection relay is
271. MCB TFS is related for the function of
272. Normal Height of contact wire from Rail level is
273. Minimum amount of Vacuum to be created with 8 mm leak hole test plate
With in 30 seconds is Cm.
274. Message conveyed through Emergency Telephone is to
275. On run if CCBA fuse melts,
276. Length of Section Insulator type Neutral Section is Meters
277. When GR on 21 <sup>st</sup> notch, if MP is brought to '0'
278. QCVAR is provided for the protection of
279. In dead loco, to avoid wheel skidding to be isolated
280. Position of A8 COC, while working with cab2 leading is
281. If time taken to pass One km is 80 seconds, the speed of the train is Kmph.
282. Standard span length between two Traction masts on straight line Meters
283. QLM is available in circuit
284. To over come A-ending Part-II, wires to be looped and follow necessary precautions.
285. DCP type fire extinguisher can used for
286. If C-118 is closing in LT but not closing in HT, wires to be looped and follow the precautions as like Q44 wedging.
287. Fire extinguisher used on Electric traction loco is
288. Earth faults in SL-2 causes tripping of DJ through
289. Lower pantograph caution order will be given during
290. When 'B' conk is defective
291. In ABCB loco, coil is used for closing the DJ
292. While working with 'A' ending trouble loco, relay should not be wedged

293.	WAP-4 loco will have number of Main reservoirs
294.	R-1 COC location in WAP-4 loco is
295.	To isolate TM No. 6,negative bit to be packed in WAP 4 loco (with out RB)
296.	Total number of brake cylinders provided in WAP-4 loco is
297.	Type of bogie provided in WAM-4 loco is
298.	Horsepower of WAP-4 loco is
299.	In WAG7 loco, VEULs energisation and time lag of last CP is maintained by
300.	Improper working of ARNO will be known by tripping failure
301.	If C105 not closed, try by changing switch to '3' position
302.	To avoid wheel skidding, to be pressed, while applying A9
303.	To create, maintain & destroy the vacuum in dual brake loco,valve is used
304.	If L1 or L6 not closed, traction failure will be experienced
305.	If train is expected to stop for minutes or more, blowers to be switched OFF,
	to conserve energy
306.	Earth fault in auxiliary control circuits causes, melting of fuse
307.	If Banding failure is experienced, clear the section with KMPH of speed
308.	Before conducting LT test, ensure
309.	Modified locos will have relay, in place of C118 chronometric I/L
310.	To avoid QD action in microprocessor loco, switch to be pressed
311.	If SL2 had earth fault, DJ will trip through relay
312.	Modified Pantograph pan will have, in place of wearing strips
313.	If pilot lamps are not working, & fuses to be checked
314.	If C145 coil is having earth fault fuse will melt.
315.	Modified RGCP setting is Kg/cm <sup>2</sup>
316.	Defective Air Dryer leads to
317.	Unless GR is in notch, DJ cannot be closed
318.	In WAG 5 loco, If all line contactors are not closed, checkCOC
319.	If C107 contactor not closed, tripping failure will be experienced
320.	For wedging Q44, permission is required
321.	While working MU, glowing of LS group lamp in leading loco indicates
322.	If, BLRDJ is defective, close the DJ by pressing
323.	QD1 energises at amps in modified locos.
324.	If any foreign body is hanging from OHE, the immediate duty of driver is
325.	To isolate TM4 in WAP4 loco(RB provided) negative bit to be packed
326.	Horse power of WAG-7 is HP.
327.	Earth fault in MVMT1 causes tripping of DJ through relay
328.	To check AFL, switch to be pressed
329.	While working EEC operation, ZSMS to be kept in position in WAG5 loco.
330.	In WAM4P loco, No. of motors will start along with ARNO

33	31. Location of R1 COC in WAG7 loco is
33	32. WAG7 loco is having type of bogie
333.	If Pacco switch is in pressed condition, trouble will be experienced
334.	Earth fault in C107 coil causes tripping failure
335.	Earth fault in S41 causes tripping of DJ through
336.	In WAM4P- 6P loco, to isolate TM 4, bit to be packed
337.	Nomenclature of MU2B is
338.	Location of A8 COC in WAG7 loco is in modified locos.
339.	In 58 BOXN+BV load, if 6 DVs are defective, the effective brake power is
340.	Minimum Brake pipe pressure should be Kg/cm <sup>2</sup> in locomotive and
	Kg/cm <sup>2</sup> in brake van of a train having 58 vehicles
341.	Minimum vacuum level should be Cm in locomotive and Cm in BV in goods train.
342.	To work an air brake train with 59 vehicles, No. of CPs to be kept in service
343.	Minimum FP pressure should be Kg/cm <sup>2</sup> in locomotive and Kg/cm <sup>2</sup> in SLR of a 10 vehicles coaching train
344.	In EP C-118 provided locos relay is provided in auxiliary control circuits.
345.	Q20 actions are
346.	P1 is provided on pipe line
347.	If time taken 40 seconds to pass one KM, the speed is KMPH.
348.	In MU, lamp glows in healthy loco and lamp glows in defective loco
349.	Starting Current ratings for 10 minutes in WAP4 loco is
350.	On modified locos, TM meters connections in cab1are & in cab2are
351.	Earth fault in ARNO capacitor bank causes tripping of DJ through relay.
352.	In modified locos, ARNO is replaced with
353.	In WAP4 loco, to isolate TM No.5 on negative side,bit to be wedged.
354.	In MU, valve makes the rear loco also to create vacuum during recreation
355.	By pressing SW1 or SW2, relay will energise
356.	If negative bonding is existing, LECC glows with HOBA in "OFF"
357.	When Driver is driving from rear cab & Asst.Driver is leading cab, the speed is
358.	On modified WAP4 loco, RF resistances are cooled by
359.	When ZPV on '4' position Contactor will open
360.	The length of PTFE neutral section is Meters
361.	Though MVRH is working, if QVRH is not energised, it leads to
362.	Earth fault in SJ4 causes tripping of DJ through relay
363.	If CTF3 TR I/L is defective on line contactors control circuit causes traction failure
364.	Pressure setting of CP individual SS is kg/cm <sup>2</sup>
365.	GD80E filter is connected in between and

366.	Signaling relay for LSGR is
367.	Capacity of CCA fuse is Amps.
368.	Tap changer control circuit is controlled byfuse
369.	The Condition of Q46 relay during Quick regression of GR is
370.	If earth fault happened in relay Q119,fuse melts.
371.	Output supply of Static converter is
372.	When BP drops and A9 is in release starts functioning.
373.	While working MU, BLSN to switched off at board of neutral section
374.	WAG7 TM current rating for 60 min. isamps.
375.	Static converter input supply is volt & out put supply is Volts
376.	a7 & a8 Bushings are belongs to Secondary Winding
377.	Nomenclature of C2A is
378.	In MU,valve makes the rear Loco brakes to operate along with leading loco brakes.
379.	If CCBA is melting when HOBA in OFF, check
380.	In dead loco, J1&J2 handles to be kept in position
381.	During RB, if BC pressure is above 1.0 kg/cm <sup>2</sup> , relay will de-energise
382.	In WAP4, center pivot will carry% and Bolster will carry% of load.
383.	Purpose of Anti Creep wire is
384.	If QVMT2 is not energised, tripping failure will be experienced
385.	Earth fault in L2 leads to tripping of DJ through relay
386.	Capacity of RGR is $\underline{\hspace{1cm}}$ $\Omega$
387.	Input supply of Inverter of SI unit is
388.	Purpose of pantograph pan tilting modification is
389.	When accident is occurred, operate switch of speedometer, after stopping.
390.	If QE is energised, will happen
391.	Fault memory capacity of Medha make Microprocessor is
392.	In Static converter loco, at neutral section,switch only to be open in modified locos.
393.	In WAG7, load bearers nearer & farer to center pivot will carry % &% of load
394.	Earth fault in C145 coil causes fuse to melt in Static converter Loco
395.	In Microprocessor loco, if main unit is not working keep HBA in '0' for
396.	When CCSPM blown out, will not work
397.	Purpose of Additional CCBA is

#### Objective questions on three Ø loco

1.	Three phase loco works on the principle of		(	)
	a. VVVF	<b>b.</b> VFVF		
	c. VVVV	<b>d.</b> None of the above		
2.	WAG 9 loco is fitted with	type of bogie.	(	)
	a. Bo-Bo flexi coil	<b>b.</b> Co-Co Tri mount		
	c. Co-Co flexi coil	d. Co-Co tetra mount high adhesion		
3.	Three phase loco is provided with .	number of roof bars.	(	)
	a. 2	<b>b.</b> 3		
	<b>c.</b> 4	<b>d.</b> 3+3		
4.	SS 06 belongs to su	b system.	(	)
	a. Auxiliary converter No. 1	<b>b.</b> Auxiliary converter No. 2		
	<b>c.</b> Auxiliary converter No. 3	d. Traction converter No. 1		
5.	To isolate panto No. 1 keep panto s	selector switch in position.	(	)
	a. Auto	<b>b.</b> I		
	c. II	<b>d.</b> I & II		
6.	To put on flasher light to be operated.			)
	a. AFL	<b>b.</b> BPFL		
	c. ZFL	d. Auto brake		
7.	SS 03 belongs to su	b system.	(	)
	a. Traction bogie 1	<b>b.</b> Traction bogie 2		
	c. Main power	d. Harmonic filter		
8.	Three phase scavenging blower filt	ers dust from	(	)
	a. Oil cooling blower	<b>b.</b> Bogie blower		
	c. Machine room blower	d. Oil cooling blower & Bogie blower		
9.	Parking brake facility is available to wheels in WAG 9 loco.		(	)
	<b>a.</b> 1, 4, 5 & 8	<b>b.</b> 2, 6, 7 & 11		
	<b>c.</b> 2 & 11	<b>d.</b> 1, 6, 7 & 12		
10.	Maximum braking effort of WAG 9	9 is	(	)
	<b>a.</b> 160 KN	<b>b.</b> 182 KN		
	<b>c.</b> 260 KN	<b>d.</b> 258 KN		

11.	SS 01 belongs to sub system.		(	)
	a. Traction bogie 1	<b>b.</b> Traction bogie 2		
	c. Main power	d. Harmonic filter		
12.	Loco grounding key is		(	)
	a. Solenoid valve No. 30	<b>b.</b> IG 68		
	<b>c.</b> IG 38	<b>d.</b> E 70		
13.	For charging of BP pressure	COC to be kept open.	(	)
	<b>a.</b> A 8 COC	<b>b.</b> 70 COC		
	<b>c.</b> 74 COC	<b>d.</b> 47 COC		
14.	In train engine, if ZBZN is switched O	N, happens.	(	)
	<b>a.</b> BP pressure drops to 'O'	<b>b.</b> FP pressure drops to 'O'		
	<b>c.</b> BC pressure raises to 3.5 kg/cm <sup>2</sup>	<b>d.</b> None of the above		
15.	In WAG 9, maximum brake cylinder pressure with direct brake is		(	)
	<b>a.</b> $1.8 \text{ kg/cm}^2$	<b>b.</b> $2.5 \text{ kg/cm}^2$		
	$\mathbf{c.} \ 5 \ \mathrm{kg/cm^2}$	$\mathbf{d.}\ 3.5\ \mathrm{kg/cm^2}$		
16.	SS 02 belongs to sub system.		(	)
	a. Traction bogie 1	<b>b.</b> Traction bogie 2		
	c. Main power	d. Harmonic filter		
<b>17.</b>	Location of PBBUS in knorr brake loco is		(	)
	a. Pneumatic panel	<b>b.</b> Auxiliary manifold		
	<b>c.</b> Air brake manifold	d. Below direct brake handle		
18.	Three phase loco is equipped with		(	)
	<b>a.</b> 16	<b>b.</b> 22		
	<b>c.</b> 12	<b>d.</b> 13		
19.	In case of emergency, Asst. loco pilot	can stop the train by operating	(	)
	a. Emergency stop switch	<b>b.</b> Emergency brake valve		
	c. BPVG	<b>d.</b> a or b of above		
20.	Procedure for quick charging of BP pro	essure in three Ø loco is	(	)
	a. Press BPVG	<b>b.</b> Keep A9 in release position		
	c. Press PVEF	d. Press 'Emergency stop' switch		
21.	The position of mode switch in leading	g cab of knorr brake loco is	(	)

	c. Trail	d. Test		
22.	In knorr brake loco pneumatic pane	el have number of portions.	(	)
	a. 1	<b>b.</b> 2	(	,
	c. 3	d. 4		
23.		venging blowers works in Mode(s).	(	)
	<b>a.</b> Driving mode only	<b>b.</b> Cooling mode only	•	,
	c. Off	<b>d.</b> Driving mode & Cooling mode		
24.	Normal position of 152 is		(	)
	<b>a.</b> '0'	<b>b.</b> '1'		,
	c. 'Norm'	<b>d.</b> None of the above		
25.	Positions of 154 Switch are		(	)
	<b>a.</b> I, II	<b>b.</b> Norm, I, II and I & II		
	<b>c.</b> Norm	<b>d.</b> 0 & 1		
26.	SS 04 belongs to su	ıb system.	(	)
	<b>a.</b> Traction bogie 1	<b>b.</b> Traction bogie 2		
	c. Main power	d. Harmonic filter		
27.	In WAG 9, earth return bushes are	connected to axle boxes.	(	)
	<b>a.</b> 1, 4, 5 & 8	<b>b.</b> 2, 6, 7 & 11		
	<b>c.</b> 2 & 11	<b>d.</b> 1, 6, 7 & 12		
28.	WAG 9 have numb	er of dampers in primary suspension.	(	)
	a. 32	<b>b.</b> 20		
	<b>c.</b> 64	<b>d.</b> 40		
29.	SS 08 belongs to su	ıb system.	(	)
	a. Auxiliary converter No. 1	<b>b.</b> Auxiliary converter No. 2		
	<b>c.</b> Auxiliary converter No. 3	d. Battery		
30.	Auto brake valve can be locked or handle in knorr brake loco.	unlocked in position of the	(	)
	a. Emergency	<b>b.</b> Neutral		
	c. Full service	<b>d.</b> Minimum reduction		
31.	WAP 5 have number	of dampers in primary suspension.	(	)
	<b>a.</b> 8	<b>b.</b> 16		

**b.** Lead

a. HLPR

**c.** 4 **d.** 32

32.	Totally, three phase loco have	number of additional COCs.	(	)
	a. 4	<b>b.</b> 8		
	<b>c.</b> 16	<b>d.</b> 2		
33.	To isolate Auxiliary converter No. 2, op	pen MCB No located in SB 2.	(	)
	<b>a.</b> 127.22/1	<b>b.</b> 127.22/2		
	<b>c.</b> 127.22/3	<b>d.</b> 127.2		
34.	In WAG 9/WAP 7, location of air dryer	r is	(	)
	a. Behind MCP 1 in left side	<b>b.</b> Between two trucks		
	c. Behind cattle guard 1 in left side	d. Behind cattle guard 1 in right side		
35.	SS 05 belongs to sub sy	estem.	(	)
	a. Harmonic filter	<b>b.</b> Hotel load		
	c. Battery	d. Batteries		
36.	When parking brakes are applied BP pr brake loco.	ressure drops up to kg/cm <sup>2</sup> in knorr	(	)
	$a. 3 \text{ kg/cm}^2$	<b>b.</b> 3.8 kg/cm <sup>2</sup>		
	<b>c.</b> 3.5 kg/cm <sup>2</sup>	$\mathbf{d.}\ 2\ \text{to}\ 3\ \text{kg/cm}^2$		
37.	In MU operation position, Constant Spo	eed Control in slave loco is	(	)
	a. In service	<b>b.</b> Partially in service		
	<b>c.</b> Will not be in service	<b>d.</b> None of the above		
38.	WAG 9 is provided with	o. of direct brake cylinders and No. of	(	)
	<b>a.</b> 12 & 4	<b>b.</b> 12 & 12		
	<b>c.</b> 4 & 12	<b>d.</b> 12 & 6		
39.	Auto brake valve have numb	per of positions in knorr brake loco.	(	)
	<b>a.</b> 5	<b>b.</b> 6		
	<b>c.</b> 2	<b>d.</b> 4		
40.	Maximum tractive effort of WAP 5 is .	KN.	(	)
	a. 258 KN	<b>b.</b> 322.6 KN		
	<b>c.</b> 458 KN	<b>d.</b> 160 KN		
41.	WAP 7 loco is fitted with tvr	pe of traction motors.	(	)

	a. 3 Ø Asynchronous motor	<b>b.</b> TAO 659		
	c. Hitachi	d. Hitachi or TAO 659		
42.	Maximum brake cylinder pressure with direct brake in WAP 5 is			)
	<b>a.</b> 1.8 Kg/cm <sup>2</sup>	<b>b.</b> 3.5 Kg/cm <sup>2</sup>		
	c. 5 Kg/cm <sup>2</sup>	<b>d.</b> 2.5 Kg/cm <sup>2</sup>		
43.	WAG 9/ WAP 7 have number of	of brake blocks.	(	)
	<b>a.</b> 12	<b>b.</b> 24		
	<b>c.</b> 48	<b>d.</b> 64		
44.	Procedure of grounding three $\emptyset$ loco is .		(	)
	<b>a.</b> Stop the train, trip VCB, lower panto and switch OFF CE	<b>b.</b> Rotate IG-38 in anti clockwise direction, extract key.		
	<b>c.</b> Insert and operate it in HOM box, an turn HOM handle by 180 <sup>0</sup> .	d <b>d.</b> All the above		
45.	When three phase loco is attached as deabrake pressure gauge reads kg	ad and if parking brakes are released, parking $e/cm^2$ .	(	)
	<b>a.</b> 0 Kg/cm <sup>2</sup>	<b>b.</b> 4 Kg/cm <sup>2</sup>		
	c. 5 Kg/cm <sup>2</sup>	<b>d.</b> 6 Kg/cm <sup>2</sup>		
46.	Continuous glowing of LSFI indicates		(	)
	a. Priority 1 fault	<b>b.</b> One of the sub system is isolated		
	c. Priority 2 fault	d. Priority 1 fault or Priority 2 fault		
47.	Position of CE during cab changing is		(	)
	a. OFF	<b>b.</b> ON		
	c. Self hold mode	<b>d.</b> None of the above		
48.	Procedure of re-setting of MG make MC	CB is	(	)
	a. Switch OFF CE	<b>b.</b> Put OFF (Down) and ON (Up) the MCB		
	c. Switch ON CE	<b>d.</b> All the above		
49.	To isolate Auxiliary converter No. 3 open MCB No located in SB 2.		(	)
	<b>a.</b> 127.22/1	<b>b.</b> 127.22/2		
	<b>c.</b> 127.22/3	<b>d.</b> 127.3		
50.	Location of BPFL is		(	)
	a. FLCU	<b>b.</b> Panel A		
	c. Panel B	d. Panel C		
51.	During self hold mode, CE will remain in	n ON for minutes.	(	)

	<b>a.</b> 15	<b>b.</b> 10		
	<b>c.</b> 20	d. Will not switch OFF		
52.	To move 3 Ø loco as live or dead ensu	ure brakes are released.	(	)
	a. Parking brakes	<b>b.</b> Direct brakes		
	c. Parking and Direct brakes	<b>d.</b> None of the above		
53.	If ATDC (Throttle) is failed, keep	switch in position.	(	)
	<b>a.</b> 154, 0	<b>b.</b> 152, 1		
	<b>c.</b> 152, 0	<b>d.</b> 160, 1		
54.	When parking brakes are applied park	ing brake pressure gauge reads	(	)
	$\mathbf{a.} \ 0 \ \mathrm{Kg/cm}^2$	<b>b.</b> 4 Kg/cm <sup>2</sup>		
	<b>c.</b> 3.5 Kg/cm <sup>2</sup>	<b>d.</b> 6 Kg/cm <sup>2</sup>		
55.	When knorr brake loco is attached as	banker keep mode switch inposition.	(	)
	a. HLPR	<b>b.</b> Lead		
	c. Trail	<b>d.</b> Test		
56.	SS 15 belongs to sub system	n.	(	)
	a. Cab 2	<b>b.</b> Fire detection		
	c. Memotel (Speedometer)	d. Processor FLG1		
57.	Location of Emergency stop push butt	ton in three Ø loco is	(	)
	a. Panel A	<b>b.</b> Panel B		
	c. Panel C	d. Panel D		
58.	Minimum voltage relay in three Ø loc	eo is	(	)
	<b>a.</b> 78 in SB 1	<b>b.</b> 78 in SB 2		
	<b>c.</b> 86 in SB 2	<b>d.</b> 86 in SB 1		
<b>59.</b>	WAP 7 have number of dampers in primary suspension.		(	)
	<b>a.</b> 8	<b>b.</b> 12		
	<b>c.</b> 16	<b>d.</b> 20		
60.	WAP 5 loco is provided with parking brake cylinders.	No. of direct brake cylinders and No. of	(	)
	<b>a.</b> 8 & 4	<b>b.</b> 12 & 12		
	<b>c.</b> 4 & 8	<b>d.</b> 12 & 6		
61.	Horse Power of WAG 9 loco is		(	)
	<b>a.</b> 5440 HP	<b>b.</b> 5000 HP		

<b>62.</b>	Specialty of knorr brake loco is		(	)
	a. There are no BE in loco	b. Though BE failed can work the train		
	c. BE will not fail	<b>d.</b> None of the above		
63.	MPS of WAP 7 loco is		(	)
	<b>a.</b> 100 Kmph.	<b>b.</b> 120 Kmph.		
	<b>c.</b> 130 Kmph.	<b>d.</b> 160 Kmph.		
64.	While working with MU, slave loco	VCB will close with delay of	(	)
	a. 5 Seconds	<b>b.</b> 1 Second		
	c. 1 Minute	d. 0.5 Seconds		
65.	WAG 9/WAP 7 have nu	umber of dampers.	(	)
	a. 16 Dampers.	<b>b.</b> 20 Dampers.		
	c. 40 Dampers.	d. 10 Dampers.		
66.	Three phase loco is provided with number of auxiliary converter(s).		(	)
	<b>a.</b> 1	<b>b.</b> 2		
	<b>c.</b> 3	<b>d.</b> 4		
67.	When harmonic filter is isolated, speed of the train is restricted to		(	)
	<b>a.</b> 60 Kmph.	<b>b.</b> 40 Kmph.		
	<b>c.</b> 25 Kmph.	d. No such restriction		
68.	WAP 5 loco is provided with	type of bogie.	(	)
	a. Bo-Bo flexi coil	<b>b.</b> Co-Co Tri mount		
	c. Co-Co flexi coil	d. Co-Co tetra mount high adhesion		
69.	To raise the pantograph, ensure	node information on screen.	(	)
	<b>a.</b> FLG 504	<b>b.</b> FLG 550		
	<b>c.</b> FLG 570	<b>d.</b> FLG 590		
70.	In modified WAP 7 loco,	wheels are provided with parking brakes.	(	)
	<b>a.</b> 2, 6, 7 & 11	<b>b.</b> 2 & 11		
	<b>c.</b> 1, 4, 5 & 8	<b>d.</b> 6 & 7		
71.	Three Ø loco have No	o. of 3 phase auxiliary motors in under frame.	(	)
	a. 2	<b>b.</b> 4		
	<b>c.</b> 12	<b>d.</b> 8		
72.	In three phase loco head light works	s with volts of supply.	(	)

	c. 24 Volts DC	<b>d.</b> 12 Volts DC		
73.	Potential transformer supply is give	n to	(	)
	a. MCE	<b>b.</b> U1 & U2 meters		
	<b>c.</b> MVR 86	<b>d.</b> Above all		
74.	Location of Bogie blower No. 2 is .		(	)
	a. Machine room No. 1	<b>b.</b> Machine room No. 2		
	<b>c.</b> Under machine room No. 1	<b>d.</b> Under machine room No. 2		
75.	Maximum voltage of traction motor	of three Ø loco is	(	)
	<b>a.</b> 2180 Volts.	<b>b.</b> 750 Volts.		
	<b>c.</b> 4360 Volts.	<b>d.</b> 178 Volts.		
76.	If RS pressure is below 5.6 Kg/cm <sup>2</sup> automatically provided BL key is in	and MCPs are not working, MCPA startsPosition.	(	)
	a. C	<b>b.</b> D		
	c. C or D	<b>d.</b> None of the above		
77.	From Cab 1, if both head lights are	not working check	(	)
	<b>a.</b> MCB No. 310.1/1 in SB 1.	<b>b.</b> MCB No. 310.1/1 in SB 2.		
	<b>c.</b> MCB No. 310.1/2 in SB 1.	<b>d.</b> MCB No. 112.1 in SB 2.		
<b>78.</b>	Before operating throttle, ensure	node information on screen.	(	)
	<b>a.</b> FLG 504	<b>b.</b> FLG 550		
	<b>c.</b> FLG 570	<b>d.</b> FLG 590		
79.	In proportional working, maximum	BC pressure in WAP 5 loco is	(	)
	<b>a.</b> $2.5 \text{ Kg/cm}^2$	<b>b.</b> 3.5 Kg/cm <sup>2</sup>		
	$\mathbf{c.} \ 1.8 \ \mathrm{Kg/cm^2}$	<b>d.</b> 5 Kg/cm <sup>2</sup>		
80.	When panto is raised and DJ is not of	closed CE will switch OFF after	(	)
	<b>a.</b> 10 Minutes	<b>b.</b> 15 Minutes		
	c. Immediately	d. CE will not switch OFF		
81.	WAG 9 has number of	of helical springs in primary suspension.	(	)
	<b>a.</b> 8	<b>b.</b> 16		
	<b>c.</b> 4	<b>d.</b> 32		
82.	Loco grounding switch is		(	)
	a. Blue KABA key (IG 38)	<b>b.</b> BL key		

**b.** 110 Volts AC

**a.** 110 Volts DC

**c.** HOM **d.** HPT

83.	Location of MCP 1 is		(	)
	a. In machine room No. 1	<b>b.</b> In machine room No. 2		
	<b>c.</b> Below machine room No. 2	d. Below machine room No. 1		
84.	Oil cooling blower cools		(	)
	a. TFP oil	<b>b.</b> SR oil		
	c. TFP oil & SR oil	d. Traction motors		
85.	Traction motors works with the prin	ciple of	(	)
	a. VVVF	<b>b.</b> VFVF		
	c. VVVV	<b>d.</b> None of the above		
86.	Procedure of isolating truck No. 1 is	3	(	)
	a. Keep 154 in I position	<b>b.</b> Keep 154 in II position		
	c. Keep 154 in Auto position	d. Keep 154 in I & II position		
87.	If battery voltage drops below	volts for 30 seconds, P2 message appears.	(	)
	<b>a.</b> 92 Volts	<b>b.</b> 82 Volts		
	<b>c.</b> 90 Volts	<b>d.</b> 85 Volts		
88.	For application of parking brakes speed should be		(	)
	a. Below 5 Kmph	<b>b.</b> Above 5 Kmph		
	c. Below 1.5 Kmph	d. Zero Kmph		
89.	With application of direct brakes Traction is not possible beyond speed.		(	)
	a. 5 Kmph	<b>b.</b> 10 Kmph		
	<b>c.</b> 15 Kmph	d. Zero Kmph		
90.	SS 16 belongs to sub sy	ystem.	(	)
	<b>a.</b> Cab 2	<b>b.</b> Fire detection		
	c. Memotel (Speedometer)	d. Processor FLG1		
91.	In proportional working, maximum	brake cylinder pressure in WAG 9 is	(	)
	$\mathbf{a.} 1.8 \text{ kg/cm}^2$	<b>b.</b> $2.5 \text{ kg/cm}^2$		
	<b>c.</b> $3.5 \text{ kg/cm}^2$	$\mathbf{d.} \ 5 \ \mathrm{kg/cm^2}$		
92.	Normal position of panto selector sv	vitch is	(	)
	a. Norm	<b>b.</b> I		
	c. II	d. Auto		

93.	Gear ratio of WAP 5 loco is		(	)
	<b>a.</b> 15:77	<b>b.</b> 20:72		
	<b>c.</b> 17:35:67	<b>d.</b> 21:58		
94.	Location of FDU is		(	)
	<b>a.</b> SB 1	<b>b.</b> SB 2		
	<b>c.</b> HB 2	d. Panel 'C'		
95.	In WAP 5, location of air dryer is		(	)
	a. Behind MCP 2	<b>b.</b> Behind Cattle guard 1 in left side		
	c. Behind MCP 1	<b>d.</b> Behind Cattle guard 1 in right side		
96.	Procedure of re-setting of ABB make Mo	CB is	(	)
	a. Switch OFF CE	<b>b.</b> Rotate the screw to vertical position		
	c. Lift the handle & Switch ON CE	<b>d.</b> All the above		
97.	Between two operations of PSA	time of pause is required.	(	)
	<b>a.</b> 10 to 12 Minutes	<b>b.</b> 10 to 12 Seconds		
	c. 12 to 15 Seconds	d. 30 Seconds		
98.	Parking brake facility is available to	wheels in WAP 5 loco.	(	)
	<b>a.</b> 2, 6, 7 & 11	<b>b.</b> 2 & 11		
	<b>c.</b> 1, 4, 5 & 8	<b>d.</b> 6 & 7		
99.	Battery voltage in three phase loco should be		(	)
	a. Above 85 Volts	<b>b.</b> Above 90 Volts		
	c. Above 92 Volts	<b>d.</b> Above 110 Volts		
100.	Three phase loco is equipped with	number of battery boxes.	(	)
	<b>a.</b> 2	<b>b.</b> 4		
	<b>c.</b> 6	<b>d.</b> 32		
101.	WAP 5 have number of helical springs in primary suspension.		(	)
	<b>a.</b> 8	<b>b.</b> 16		
	c. 4	<b>d.</b> 20		
102.	Horse power of WAP 7 is		(	)
	<b>a.</b> 5440 HP	<b>b.</b> 5000 HP		
	c. 8000 HP	<b>d.</b> 6120 HP		
103.	Three Ø loco is equipped with number of single Ø auxiliary motors.		(	)
	<b>a.</b> 12	<b>b.</b> 4		
	<b>c.</b> 8	<b>d.</b> 13		
104.	While working with MU, if un coupling	takes place between the locos, the position of	(	)

	slave loco is			
	a. Systematic shut down	<b>b.</b> Only VCB trips		
	c. VCB trips and panto lowers	d. No specific action		
105.	WAP 5 has No. of brake pads.		(	)
	<b>a.</b> 8	<b>b.</b> 16		
	<b>c.</b> 32	<b>d.</b> 64		
106.	In WAP 5 loco, each wheel is provided with number of brake hanger(s).		(	)
	<b>a.</b> 1	<b>b.</b> 2		
	<b>c.</b> 4	<b>d.</b> 8		
107.	To operate reverser ensure node	information on screen	(	)
	<b>a.</b> FLG 504	<b>b.</b> FLG 550		
	<b>c.</b> FLG 570	<b>d.</b> FLG 590		
108.	For CHBA, MCB No is input	and located in	(	)
	<b>a.</b> 100 & 110	<b>b.</b> 110 & 100		
	<b>c.</b> 112.1 & 110	<b>d.</b> 112 & 112.1		
109.	If speed is more than % than MF	PS, audio visual indications will appear.	(	)
	<b>a.</b> 0.5%	<b>b.</b> 5%		
	<b>c.</b> 15%	<b>d.</b> 50%		
110.	. WAG 9/WAP 7 loco is provided with type of direct brakes.		(	)
	a. Clasp	<b>b.</b> Non-Clasp		
	c. Disc	<b>d.</b> None of the above		
111.	While working with MU, if FDU came is master loco.	nto service in slave loco, happens in	(	)
	a. VCB trips	<b>b.</b> BZ-V-O-F sounds with P1 message		
	c. Only P1 message appears	<b>d.</b> None of the above		
112.	Over current relay in three Ø loco is		(	)
	<b>a.</b> 86	<b>b.</b> 70		
	<b>c.</b> 78	<b>d.</b> 74		
113.	If TFP oil temperature increased to <sup>0</sup> C	C for 10 seconds, loco will shut down.	(	)
	<b>a.</b> $84^{\circ}$ C	<b>b.</b> $70^{\circ}$ C		
	<b>c.</b> 80 <sup>0</sup> C	<b>d.</b> 47 <sup>0</sup> C		
114.	OHE working range of three phase loco	is KV.	(	)
	<b>a.</b> 17.5 KV & 30 KV	<b>b.</b> 17 KV & 30 KV		

115.	To switch OFF control electronics procedure of operating BL key is		(	)
	a. D to OFF wait for 4 seconds	<b>b.</b> OFF to C wait for 4 seconds		
	<b>c.</b> C to OFF	<b>d.</b> Above all		
116.	SS 18 belongs to sub sys	stem.	(	)
	a. Fire detection	<b>b.</b> Memotel		
	c. Processor FLG 1	d. Processor FLG 2		
117.	Location of CHBA is		(	)
	a. Machine room No. 1	<b>b.</b> Machine room No. 2		
	<b>c.</b> BUR 1	<b>d.</b> BUR 2		
118.	For cooling mode procedure of operation	ting BL key is	(	)
	a. D to OFF wait for 4 seconds	<b>b.</b> OFF to C wait for 4 seconds		
	c. C to OFF then to C again	d. Above all		
119.	On run, dropping of MR pressure drop	ps below 6.4 kg/cm <sup>2</sup> causes	(	)
	a. TE/BE needle comes to 'O'	<b>b.</b> P1 message appears		
	c. Both MCPs starts	<b>d.</b> All the above		
120.	Normal position of ZTEL is		(	)
	a. ON	<b>b.</b> OFF		
	c. 'Norm'	d. Zero		
121.	To close the DJ, ensure	node information on screen.	(	)
	<b>a.</b> FLG 504	<b>b.</b> FLG 550		
	<b>c.</b> FLG 570	<b>d.</b> FLG 590		
122.	When ZTEL is switched ON tractive effort is limited to kn in WAG 9.		(	)
	<b>a.</b> 0.8 to 1.5 KN	<b>b.</b> 300 KN		
	<b>c.</b> 150 KN	<b>d.</b> 458 KN		
123.	To isolate panto No. 1 keep panto selector switch in position.		(	)
	a. Auto	<b>b.</b> I		
	c. II	<b>d.</b> I & II		
124.	• In three Ø loco each battery box is provided with number of batteries.		(	)
	<b>a.</b> 13	<b>b.</b> 26		
	<b>c.</b> 3	<b>d.</b> 39		

125.	MPS of WAP 5 is Kmph.		(	)
	<b>a.</b> 100	<b>b.</b> 130		
	<b>c.</b> 140	<b>d.</b> 160		
126.	From cab 2, if both head lights are not working check MCB No		(	)
	<b>a.</b> 310.1/1 in SB 1	<b>b.</b> 310.1/1 in SB 2		
	<b>c.</b> 310.1/2 in SB 1	<b>d.</b> 310.1/2 in SB 2		
127.	Actions of emergency stop push button in three Ø loco are		(	)
	a. VCB trips	<b>b.</b> Panto lowers		
	c. TE/BE comes to 'O'	<b>d.</b> All the above		
128.	During WAP 7 loco brake power testing	, should not to move below KN.	(	)
	a. 100 KN	<b>b.</b> 150 KN		
	<b>c.</b> 300 KN	<b>d.</b> 125 KN		
129.	In dead loco, open COC for the pu	rpose of charging auxiliary reservoir.	(	)
	<b>a.</b> 70 COC	<b>b.</b> 47 COC		
	<b>c.</b> 74 COC	<b>d.</b> 136 COC		
130.	. While working as banker, put on Switch.		(	)
	a. ZTEL	<b>b.</b> ZBAN		
	c. BLHO	<b>d.</b> None of the above		
131.	Procedure of resetting VCD in WAG 9 / WAP 7 loco is		(	)
	a. Keep throttle in 'O'	<b>b.</b> Wait for 160 Seconds		
	c. Press BPVR	<b>d.</b> All the above		
132.	Location of MCP 2 in three $\emptyset$ loco is		(	)
	a. Loco left side	<b>b.</b> Loco right side		
	c. Machine room No. 1	<b>d.</b> Machine room No. 2		
133.	SS 17 belongs to sub system.		(	)
	a. Fire detection	<b>b.</b> Memotel		
	c. Processor FLG 1	<b>d.</b> Processor FLG 2		
134.	While moving three Ø loco as dead to av	oid wheel skidding	(	)
	<b>a.</b> Stop the train, trip VCB, lower panto and switch OFF CE	<b>b.</b> Lock 23 plunger in applied condition and release all parking BCs		
	c. Ensure loco brakes are released	<b>d.</b> All the above		
135.	To perform shunting keep switch	ch in position.	(	)

136.	• While working with WAP 7 or WAG 9 with light load, if Harmonic filter is isolated procedure to work with normal speed is		(	)
	a. Stop the train	<b>b.</b> Switch OFF CE & Isolate Bogie 1		
	c. Switch ON CE & resume traction	<b>d.</b> All the above		
137.	Procedure of isolating VCD is		(	)
	<b>a.</b> 154 in '1'	<b>b.</b> 154 in 'O'		
	<b>c.</b> 237.1 in '1'	<b>d.</b> 237.1 in 'O'		
138.	CHBA is getting supply from		(	)
	a. Auxiliary converter No. 1	<b>b.</b> Auxiliary converter No. 2		
	c. Auxiliary converter No. 3	<b>d.</b> Traction converter No. 1		
139.	. If battery voltage drops below volts, loco will shut down.		(	)
	a. 82 Volts	<b>b.</b> 87 Volts		
	c. 90 Volts	<b>d.</b> 92 Volts		
140.	For CHBA, MCB No is output and located in		(	)
	<b>a.</b> 110; SB 1	<b>b.</b> 110; SB 2		
	<b>c.</b> 100; HB 1	<b>d.</b> 100; HB 2		
141.	In WAG 9, normal position of direct brake handle in rear cab is		(	)
	a. Apply	b. Release		
	c. FS & Locked	<b>d.</b> None of the above		
142.	Horse power of WAP 5 is		(	)
	<b>a.</b> 5440 HP	<b>b.</b> 5000 HP		
	<b>c.</b> 8000 HP	<b>d.</b> 6120 HP		
143.	Before nullifying CSC, observe	meters and throttle.	(	)
	a. Ammeters	<b>b.</b> Voltmeters		
	c. Screen	d. Bogie 1 & Bogie 2		
144.	For isolation of Auxiliary converter No.	. 1 trip MCB No	(	)

**b.** 154; 1

**d.** 160; 1

**a.** 154; 0

**c.** 160; 0

	<b>a.</b> 127.22/1 in SB 1	<b>b.</b> 127.22/1 in SB 2		
	<b>c.</b> 127.22/2 in SB 1	<b>d.</b> 127.22/2 in SB 2		
145.	VCD is required to acknowledge after att	taining of kmph of train speed.	(	)
	a. 5 kmph	<b>b.</b> 1 kmph		
	<b>c.</b> 1.5 kmph	<b>d.</b> 15 kmph		
146.	In WAG 9, when parking brakes are release	ased PB gauge reads	(	)
	<b>a.</b> 5 Kg/cm <sup>2</sup>	<b>b.</b> 0 Kg/cm <sup>2</sup>		
	<b>c.</b> 6 Kg/cm <sup>2</sup>	<b>d.</b> 3.5 Kg/cm <sup>2</sup>		
147.	During loco brake testing WAG 9 should	not to move belowKN.	(	)
	a. 100 KN	<b>b.</b> 150 KN		
	<b>c.</b> 300 KN	<b>d.</b> 125 KN		
148.	SS 19 belongs to sub s	ystem.	(	)
	a. Fire detection	<b>b.</b> Train bus		
	c. Processor FLG 1	<b>d.</b> Processor FLG 2		
149.	Continuous pressing of PSA for 68 secon	nds caused to	(	)
	a. Continuous sanding	<b>b.</b> Penalty brakes in Dead man's mode		
	c. Vigilance penalty brakes	<b>d.</b> None of the above		
150.	CSC can be activated after attaining of	kmph of train speed.	(	)
	a. 5 kmph	<b>b.</b> 1 kmph		
	<b>c.</b> 1.5 kmph	<b>d.</b> 15 kmph		

## Question Bank for Chief Loco Inspector SC Division

Sub: General Descriptive

- 1 What are the duties of LI being as first official to accident site?
- What are the duties of loco inspector during Train parting?
- What are track parameters affect the running of a train?
- What are the measurements to be taken in derailed Loco?
- 5 What are the measurements to be taken in derailed coach?
- 6 How an accident message will be given and explain with contents?
- 7 Explain how excess twist will cause an accident with diagram
- 8 What is sharp flange, how it will cause an accident?
- 9 How a joint report will be prepared at accident side by supervisors?
- What are parameters available in strip chart of SPM and how they can be read?
- What are the parameters of a wagon that will contribute to an accident?
- What is cross level variation and it will cause an accident?
- What is versine and what is the permitted value and how it will cause an accident?
- What is super elevation what is the permitted values and how it will cause an accident?
- Write various oscillations that happen in locomotives while on run with brief explanation of each.
- Draw the sketch of tyre defect gauge with locating parameters at which they can measure?
- Draw the sketch of track gauge with locating parameters at which they can measure
- What are the reasons for short length (below 2 feet ) between point of mount and point of drop and long length (above 2 feet) between point of mount and point of drop
- What is the procedure to be followed if any Rly. Staff found in drunken state while 'Sign-ON' and 'Sign-OFF'.
- How the Overtime can be reduced?
- How the PAD and PDD can reduce?
- How will you improve the implementation of 10 hrs rule?
- How you will improve the 'C' grade loco pilot to higher grades.
- How will you conduct a fact finding inquiry if loco hit a foreign body being a first official to the spot?
- 25 What are the reasons for panto entanglement?
- What is regulated OHE and unregulated OHE
- What is insulated overlap span and insinuated overlap span.
- Write the various type insulators using in OHE and at what places they will be used.
- Write the various jumpers using in OHE and at what location they will be used?
- What are the items to be checked at LC gate?
- What is the latest committee contributed by the Govt. of India to improve Railway safety and what are the main recommendations to improve safety.
- Write short notes on AIRs and ARME and their locations in BZA division.
- 33 Define the following
  - a) Rly. accident
  - b) Consequent accident
  - c) Indicative accident

- d) Yard derailment
- What the various types are of inquires which is held to investigate into Rly. accident
- How the periodic medical examinations and psychological tests of staff contribute towards improved safety in train operations?
- Describe some of the mechanical / electronic safety devices recently introduced for better safety in train operation?
- How the monitoring and periodic screening of staff help in reducing accidents.
- What are your suggestions to improve safety consciousness among the running staff to reduce the train accidents
- What are the duties of CTLC?
- What are the duties of TLC?
- What are the duties of CC?
- What are the duties of CCC?
- Being a first official to the accident spot of panto entanglement how you will deal the situation.
- Being a first official to the accident spot of manned level crossing gate how will you deal the situation?
- Being a first official to the accident spot of train passed a stop signal at ON how you will deal the situation.
- Being a first official to the accident spot of wagon derailment how you will deal the situation.
- Being a first official to the accident spot of wagon derailment by taking two routes how you will deal the situation.
- Being a first official to the accident spot of rear end collision how you will deal the situation.
- 49 How an electrical fault isolated in OHE
- Who is authorized to operate Switch Mains.....?
- What are the various sectionings and parallellings provided in OHE either to isolate or to make continuity and explain the location of each location at which they used?
- Write about payment wage act?
- Write about minimum wages act?
- Write about the importance of workman's compensation act.
- What are the factors which will not comes under WCA during accident for payment of compensation?
- What are the duties of supervisor in case of on duty injury or disablement of an employee
- How many schedules available Workman's Compensation Act and what are they
- What are the points to be displayed at work place under factories act?
- Write short notes about factory act.
- What are norms to be kept in mind while preparing loco links explain with illustration?
- What are norms to be kept in mind while preparing crew links, explain with illustration?
- What are the advantages of air brakes
- What are the disadvantages of air brakes
- In BZA loco shed 150 locos are available. How much outage can be given to goods if coaching requirement is 41.
- What is EKM of loco and crew how these will be calculated?
- What are the services / movements comes under ineffective outage

- How many employees are required if 2 members working in a shift of 12 hrs roster and 8 hrs roster
- How the assessment of goods crew will be done.
- 69 Expand GT KM and what is the formula for calculating the GT KM
- What is the line capacity and what are the factors affecting the Line capacity?
- 71 What is operating ratio? How to improve it?
- what is ruling gradient and how it is affecting the sectional Load?
- 73 What is critical block section
- Why isolation is needed and interlocking is needed? Explain with illustration.
- 75 Write the advantages of MAS signals than TAS signals.
- What is an electric shock, how first aid will be render to the electrocuted person?
- 77 What is the procedure to conduct running time trials?
- How the load trials will be conducted what are factors affecting in fixing of train load.
- Write the duty at a stretch and rest rules pertaining to Running staff.
- Draw a sketch of crew link having 8 men
- How the dead loco will be cleared.
- What are steps to be taken to improve outage in goods service?
- What are the steps to be taken to improve the average speed
- What is punctuality? Advise how to improve the punctuality and factor affecting the punctuality.
- What is Booked speed, Max. Permitted Speed, Minimum running time and Normal running time?
- How to negotiate a neutral section having 30 kmph caution order at neutral section
- How will you counsell a loco pilot to drive a train if 20 KMPH speed restriction is existing at the peak of the gradient?
- 88 Expand the following
  - 1) RITES 2) IRIEEN 3) COFMOW 4) RDSO 5) CORE 6) FOIS 7) COIS 8) IVRS 9) CRIS 10) IRISET
- 89 Expand the following
  - 1) BCM 2) TTM 3) SPART 4) TRR 5) TFR 6) TSR 7) PQRS 8) BWM
- What is fire? How fires are classified and hoe the each fire will be controlled?
- Write the procedure to be followed to condemn a detonator and fusee
- What are the ill affects if lateral clearance is more in loco?
- What are the points to be observed in new erection of signal
- How tracks reading will be taken during derailment
- What are the reasons for stalling
- What is combined train report?
- 97 What is Quick coupling?
- Write about Working time table and passenger time table and why skip time is necessary?
- Write the types of passes available in Railways to the Railway employees.
- 100 Write the entitlement restrictions of various passes to running staff
- What is the metal pass and what are the various metal passes available in Railways.
- 102 What is the split pass?
- 103 What is hospital pass?
- 104 What is privilege pass?
- What are the service restrictions in issuing of number of privilege passes to the Railway employee?
- 106 What are the service restrictions to issue post retirement passes?

- 107 What is the time limit in usage of privilege pass?
- What are the route restrictions to be followed in using of privilege pass
- What is school pass and whom it will be issued
- 110 Who are eligible for include in privilege pass.
- 111 If wife and husband both are Railway employees, how many passes both are eligible
- What is SDP and for what distance it can be used?
- 113 What is 'DCP' and to whom it will be issued?
- Is Recognized organized labor member eligible for duty pass for proceeding any general body meeting.
- When a son aged beyond 21 years will be included in a privilege pass?
- When a daughter aged beyond 21 years will be included in a privilege pass?
- 117 Up to what date last year passes and PTOs can be issued?
- If last year passes issued in current year up to what date it will eligible to travel?
- 119 If a loco pilot retiring in a 31<sup>st</sup> Jan how many privilege passes and PTOs he is eligible?
- What is joining time for first 1000 kms?
- How many days joining time is admissible during request transfer?
- What are the restrictions to be followed to suspended employee in respect to promotion?
- 123 What type of documents can be allowed to examine by the DE.
- Write about the documents in respect to DAR cases.
- Who will be nominated as presenting officer and who will be nominating as inquiry officer?
- What is periodicity of PME to be followed?
- What are medical standards to be maintained by a loco pilot and Loco Inspector, Box boy, Running cook, and RR bearer?
- 128 If person completed his PME on June 20<sup>th</sup> of 43<sup>rd</sup> year, what is his next medical due date.
- What are the PME period treated as on duty?
- 130 If an employee is changing his spectacles, how may days he is eligible to undergo PME?
- What are the differences between PME and special PME?
- What are the occasions can the employee can be directed for special PME?
- What action can Railway administration has to take if an employee reports after 45days absent?
- What action can Railway administration has to take if an employee reports after 90 days absent?
- What are the types of leaves existing in Railways?
- Write about Leave rules.
- What is the procedure to grant quarantine leave?
- How many days of LAP/LHAP credited in January?
- How many days LAP can be enchased?
- 140 How a sick leave can be commuted?
- Write short notes on paternity leave.
- " " Maternity leave
- " " Hospital leave
- " Casual leave
- " " Special casual leave
- " leave not due
- 147 If a person joins in December into Railway how many casual leaves he is eligible?

- 148 Is casual leave can prefix or suffix with any kind of leave?
- How many days of causal leave eligible to running staff in a calendar year?
- What is S.O.P in granting of leave by Sr. Supervisor to Running staff and other staff?
- Distinguish between hospital leave and special disability leave
- How is un availed portion of joining time will be Dealt?
- Write the duty roster of running staff.
- List out the categories under HOER and indicate rostered hours of each category?
- Write the differences between Essentially Intermittent and Continuous categories.
- Write about PNM and JCM
- 157 Distinguish between Excluding and Continuous category
- Distinguish between Supernumerary posts and Temporary post
- 159 What is assumed attendance?
- Write short notes on Intensive and Essentially Intermittent category.
- 161 What are the allowances admissible to running staff?
- 162 How TA will be calculated?
- 163 What is the formula for calculating for Over Time Allowance?
- What is the formula for calculating for break rest allowance?
- 165 How shunting allowance admissible to running staff?
- 166 How OSRA will be admissible to running staff
- Write short notes on OSDA
- 168 What is officiating allowance and how it will be calculated?
- 169 What is transfer grant?
- 170 How much amount can be granted towards spectacles?
- 171 What is the formula for calculating NDA?
- What are the advances that running staff are admissible?
- 173 How many types of quarters available in Railways?
- Write the entitlement of quarters to running staff?
- 175 What is the procedure to allot Railway quarters?
- When a Railway servant will be placed under suspension
- What are the compulsory deduction from subsistence allowance during suspension period
- What are to be taken to keep the number of employees in control under the suspension
- What are the entitlements are eligible to the suspended employee
- 180 What are the restrictions on the suspended employee
- 181 To whom the suspension are revocation orders to be served
- What are the minor penalties
- 183 What are the major penalties
- 184 What is the procedure to impose minor penalty
- What is the procedure to impose minor penalty during the loss of Railway properties
- 186 What are the differences between major and minor penalties
- 187 What is the procedure for imposing major penalty
- 188 What are the various stages in imposing procedure of imparting major penalty
- 189 What are the occasions to follow common proceedings
- 190 Write model time schedule for progress of major penalty 'DAR' cases?
- 191 What is daily order sheet?
- What are the norms to be followed while appointing an inquiry officer
- 193 What are the occasions to change inquiry officer?
- What are the norms to be followed in selecting a defense counsel?
- 195 Who all are called prosecution witness and defense witness

196	What are the differences between fact finding and 'DAR' inquiry				
197	What are the difference of Rule No. 9 and 14 of DAR act?				
198	What is the procedure to be followed during expert inquiry?				
199	How an inquiry report shall be prepared				
200					
201	What is the determination of appellate authority				
202	What are the differences between removal and dismissal?				
203	What are the facilities to be given to the defense counsel?				
204	What are the circumstances to postpone and inquiry?				
205	What is the role of an IO if delinquent wants to submit any defense				
	witness/documents				
206	What is the procedure to be followed while examining the prosecution witne	ess and			
	defense witness during inquiry?				
207	What is procedure to be followed by an I.O. during any submission by CE d	uring			
	inquiry	C			
208	Write the abbreviations of the following				
	1) DAR 2) VC 3) SPE				
209	Who is the head for vigilance at zone level?				
210	What are standard forms for the following				
	a) Order suspension under Rule No.5 (1)				
	b) Order suspension under Rule No.5 (2)				
	c) Appointment of Inquiry/Board inquiry				
	d) All the forms				
211	What is differences between disciplinary authority and appellate authority				
212	What is differences between revision and review				
213	Standards for using disciplinary proceedings				
214	Order of suspension under Rule 5 (1)	SF-1			
215	Order of deeming a railway servant under suspension under Rule 5(2)	SF-2			
216	Certificate to be furnished by suspended official under Rule 2043 (I)-R-II	SF-3			
217	Order of revocation of suspension under Rule 5(5)(c)	SF-4			
218	Charges sheet for major penalty under Rule 9	SF-5			
219	Refusing of Permission to inspect documents	SF-6			
220	Appointment of Inquiry/Board of Inquiry	SF-7			
221	Appointment of Presenting Officer	SF-8			
222	1				
223					
224					
225	Appointment of presenting officer in common proceedings SF-10(b)				
226					
227	Charge-sheet for initiation of Minor penalty proceedings in cases where	SF-11(b)			
	Disciplinary Authority decides to hold the inquiry under Rule 11(1)(b)/11(2)				
228	Taking disciplinary action for minor penalty where charge-sheet for major	SF-11(c)			
	penalty was initially issued				
229	Memorandum where action is proposed under Rule 14(i)	SF-12			
230	Standard form of sanction under Rule 2308 RII	SF-12			
231	Standard Form of charge-sheet for proceedings under Rule 2308 RII SF-14				

### Question Bank for Chief Loco Inspector <u>SC Division</u>

Sub: G&SR

- 1 Write the essentials of absolute block systems
- 2 Write the essentials of automatic block system
- What are the trains can be dispatched to open communication in single line during total interruption of communications
- 4 What is station section and block section.
- 5 Write the station section of B-class station multiple aspect signals in double line
- Write the station section of B-class station multiple aspect signals in single line
- Write the station section of B-class station two aspect signals in double line
- 8 Write the station section of C-class station multiple aspects in double line.
- 9 Write the conditions to grant line clear in B-class station double line
- Write the conditions to grant line clear in A-class station
- Write the conditions to grant line clear in C-class station
- 12 Explain bloc overlap and signal overlap.
- 13 What type of abnormalities will come under breach of block rules?
- What block back and block forward.
- 15 Why **Isolation** and **Interlocking** is required in the signalling system.
- 16 Explain what is unsignalled movement?
- 17 Explain how a train can be received in to an obstructed line.
- 18 Explain how a train can be received into an unsignalled line.
- 19 How to distinguish the general rule and subsidiary rule.
- Write about subsidiary signals.
- 21 What is a Repeating Signal and Signal Repeater
- What are the minimum equipment of signals be provided in A-class, B-class and C-class station.
- Write about exchanging of alright signals
- Write the procedure to work a train without guard.
- 25 Writer the procedure to work a train without brakevan.
- Write the significance for provision of IB signal. Explain how the signal is provided with diagram and write how to pass IB signal at ON.
- Write about detonating signals
- Write about fusee signals
- 29 Write about block section limit board and shunting limit board.
- Write about various engineering indicators come across while working a train.
- Write about Stop-board, S-board, W-board, W/L-board, W/B-board and shunting warning board.
- Write how to pass an automatic signal at 'ON' in double line and single line.
- How the communications will be opened in single line during total interruption of communications.
- How the trains can be worked in automatic block system if prolonged failure of automatic signals.
- 35 How the train can be secured in block section and station section.
- What are the precautions to be taken while working material train?
- How to clear the front portion and leftover portion from block section?
- How many types of shunting available and explain each of them.
- Write about the responsibilities for supervising the shunting
- 40 How many types of interlocking are available? Explain each of them

- 41 What are the occasions to issue a caution order? How it will be prepared and served.
- Write about station working rules.
- Write about various types of ODCs working.
- How the wagons containing explosives and inflammables will be marshalled in various trains.
- Which is the circumstance called as total interruption of communication and in double line how the trains can be dealt?
- What is train signal register and what are the contents available in it.
- Write about the duties of loco pilot in case loco unable to haul the load?
- Write the duties of loco pilot in case of train parting.
- 49 How the trains will be worked in case one line obstructed in double line.
- 50 What is the significance of each column provided in T-1425(a) & (b)
- How a damaged vehicle can be cleared?
- How you will guide the loco pilot to clear the stalled train from the peak of the gradient.
- A train arrived to BZA by 120 min. late. BZA-MAS is the last lap of its journey. Engg. Allowance is 34 min, traffic allowance is 48 min. and loco allowance is 32 min. Explain how the train can be gained punctuality.
- Write about the indications of accident siren and in case of siren defect how the communication is dealt.
- How the railway accidents are categorized?
- How a run-over case is dealt.
- Write short notes on block ticket
- Write the conditions for taking off home signal.
- Write about point indicator and trap indicator
- Write about how a stop signal can be passed at ON.
- What are the duties of loco pilot in absence of fixed signal?
- Write about the hand signals.
- Write the duties of loco pilot in case of accident.
- Why signal warning boards are necessary and where they are provided.
- What are the duties of loco pilot while starting from an originating station?
- How the guard can be intimated by the loco pilot to protect the train in rear in case unable to proceed further.
- How the engineering indicators will be provided in case of various speed restrictions within 200 meters at same spot.
- How many types of working systems are existing and among them which are available in S.C.Railway.
- How an automatic gate signal will be passed at ON.
- What are the occasions to back the train and what is the procedure be followed.
- 71 How a semi automatic signal will be passed at 'ON'
- What are the warning boards available at neutral sections? Write the duties of loco pilot while passing at neutral sections.
- How many types of freight train BPCs are available and explain them.
- 74 What are the communications available between loco pilot and guard?
- What are the various injuries related to accident manual and explain each of them.
- How the train can be worked in case explosion in track or train.
- What are the instructions regarding the usage of portable field telephone.
- 78 How many types of signals available
- How a train can be dealt on calling on signal
- How many types of repeating signals available and explain each of them.

- What are the signals cannot be used for shunting operation.
- 82 If two home signals are placed on same post, explain to which route they belong.
- Why signal sighting committee is needed and what is the periodicity of inspections?
- Write the duties of loco pilot on seeing a flasher light on adjacent line.
- Write the duties of loco pilot in case of explosion of a detonator
- How the train can be protected in case of accident in double line absolute block system.
- How the train can be protected in case of accident in double line automatic block system
- How the train can be protected during the total interruption of communication in single line absolute block system
- 89 How the train can be protected on double line during total interruption of communication
- How the train can be stopped on out of course at station in automatic block system
- What are the duties of loco pilot when train detained at first stop signal
- What are the precautions to be taken when moving a C-class ODC in electrified section
- How the trains can be dealt during struck up of permissible signal in OFF aspect.
- What are the authorities will be given in single line to perform shunting at various occasions provided with push button type block instrument.
- What is the authority to perform shunting in double line multiple aspect signals at various occasions?
- Write the differences between position light shunt signals and shunting permitted indicator.
- How a train can be dispatched from an un-signalled line?
- 98 What are the differences of interlocked working and non-interlocked working?
- 99 Why sand humps are necessary?
- 100 How the train can be passed on a weld failure / rail fracture or multiple rail fracture?
- How a work spot having stop and start will be protected by engineering indicators.
- 102 Define ISMD?
- 103 Which equipment is given the fourth option in the order of preference in obtaining line clear?
- Which no. of channel/frequency is freezed for obtaining / granting line clear when line clear is obtained/granted through VHF sets?
- 105 If SM of station 'X' cannot obtain the attention of station 'Y' on the block instrument, after how many minutes, the SM 'X' will go to next means of communication?
- Which type of indicative accident is reportable by telephone to Railway Board by the Zonal Railway and by the Division to the Zonal Railway?
- Who is the accepting authority for all other Consequential Train Accident, except UMLC accidents?
- 108 What is the station section at a Class 'B' station with Multiple Aspect Signals on double line?
- What is the authority required for performing shunting beyond outermost facing point/BSLB on a double line class 'B' station?
- "Dispatch a message from a block station intimating the block station immediately in rear on a double line or either side on a single line that the block section is obstructed or being obstructed". What is this?
- 111 What is the name given to the celebrations that are going on in our Railway?

# Question Bank for Chief Loco Inspector <a href="SC Division">SC Division</a>

Sub: G&SR Objective

1.	Approved special instructions means special instructions approved by		
2.	Anemometer is provided for measuring		
3.	Wind velocity considered dangerous iskmph and above.		
4.	No railway servant directly connected with the working of trains shall take alcoholic drinks or narcotics within hours before commencement of duty.		
5.	BOL in TAS and MAS ismtrs. and mtrs.		
6.	BOL shall be reckoned fromsignal.		
7.	SOL in TAS and MAS ismtrs. andmtrs.		
8.	Isolation is compulsory when the speed of run through trains exceedskmph.		
9.	In semaphore territory when there are no lights in OFF position, to pass the reception signals, the Driver can proceed		
10.	To attach an O D C prior approval ofshould be taken		
11.	Speed of "C" class O D C shall not exceed kmph on BG		
12.	Signal Warning Board is provided in rear of FSS atmtrs. in electrified section.		
13.	When inner distant is provided, the distant signal shall haveandaspects only.		
14.	The calling on signal shall display light in ON position during night.		
15.	The calling on signal may be provided below any stop signal except		
16.	Shunt Signal may be provided below any stop signal except		
17.	When shunt signal is defective is the authority for the Driver to pass the signal.		
18.	When shunting permitted indicator is defective is the authority for the Driver to pass the Shunting Permitted Indicator.		
19.	Detailed instructions regarding working of Shunting Permitted Indicator will be incorporated in		
20.	signal does not show any light in any position at any time.		
21.	A Semi Automatic stop signal is distinguished by		
22.	Fog signal post is located atmtrs. in rear of outer most signal of the station.		
23.	Fog signal post is painted with & colours alternatively.		
24.	Visibility Test Post is painted with& colours alternatively.		
25.	Visibility Test Post is located at mtrs. from SM's office.		
26.	Normal aspect of the fixed signals, except automatic signals, will be		
27.	The speed of a train while entering terminal goods yard is restricted to kmph.		
28.	The speed of a train in 1 in 8 ½ turnout provided with 60 kg sleepers and rails restricted to kmph.		

29.	Normal authority to proceed on double line is
30.	When LSS fails in token less territory on single line, the authority shall be
31.	The minimum vacuum required in engine of a goods train is
32.	The minimum vacuum required in brake van of a goods train isCms.
33.	Twin pipe system is provided in trains
34.	Under approved special instructions, when a colour light distant signal is combined with LSS the aspect in its ON position shall showlight.
35.	A gate stop signal in automatic territory is distinguished bymarker
36.	Backlight of semaphore signal will be visible inposition of the signal.
37.	On double line, authority to pass Home Signal of a class C station at ON is
38.	When Advanced Starter is defective on double line the authority for the Driver to start a train is
39.	On single line token less section when advanced starter is defective authority to proceed for the Driver is
40.	The presence of outlying siding points is indicated by marker board.
41.	In MAS signaling a single arm home is sufficient when the speed of trains through station does not exceedskmph.
42.	The OFF aspect of the Warner Signal indicates
43.	When an IB signal is defective, before starting the train the Driver shall be givenauthority.
44.	When a signal is newly erected or recited, caution order shall be issued for a period ofdays.
45.	Slip siding is provided to protect
46.	Catch siding is provided to protect
47.	Even though all signals are semaphore signals at a station, under approved special instructions signal can be a colour light signal.
48.	Shunting in the face of an approaching train outside the home/outer most facing points in TAS/MAS shall only be done where
49.	While performing shunting on passenger carrying train, shunting engine with or without coaches shall first come to a halt atmtrs. away from the train.
50.	Whenever attaching or detaching offour wheeler unit wagons or more taken place a fresh B P C shall be issued.
51.	At intermediate station when vehicles attached to train the entry in V.G. shall be made by
52.	A single four wheeler vehicle must not be marshalled between
53.	By express trains a maximum of coaches may be attached in rear of the rear brake van excluding officers carriage.
54.	When shunting the wagons loaded with petrol the speed shall not be more thankmph.

55. The empty/load handle should be set in empty position when the wagon is empty partially loaded with gross load not exceedingtonnes.	y or	
When full train is shunted across the main line, shunting must be supervised only by		
57. While hand shunting of vehicles fitted with other than roller bearing on a gradient ste than 1 in 200 the speed is restricted tokmph.	eper	
58. Shunting beyond advanced starter and up to FSS of opposite direction on single line t less section is	oken	
59. Shunting of wagons containing explosives shall be carried out only under the supervision	on of	
60. The speed of a tower wagon shall bekmph.		
61. The speed of an engine returning on T/609 shall not exceedkmph.		
62. The speed restriction that has to be observed by a Driver when headlight of engine fai BG iskmph.	ls on	
63speed restriction to be imposed by the SM when he receives the message o fracture of less than 30mm.	f rail	
64. The speed of the light engine proceeding on T/J 602 is restricted tokmph.		
65. Maximum speed of the relief engine proceeding on T/A 602 on double line is		
66. Speed of the first train during temporary single line working is restricted kmph	l to	
67. The speed while pushing back with guard traveling in engine showing hand signals, not exceedkmph	shall	
68. The speed of the train while pushing back with guard traveling in leading vehicle fitted braking equipment shall not exceedkmph.	with	
69. While engine returning to bring the remaining portion of train left behind in block see should not exceedkmph	etion	
70. A gate cum distant signal shall be located at a distance ofmtrs. in rear o gate	f the	
71. Where trains are booked to stop for less than 5 min. at a station outgoing tokens sha delivered	ll be	
72. The signals shall not be taken OFF for shunting purpose is		
73. The gate signal in automatic signalling with extinguished A marker shall seminated in the signal in automatic signalling with extinguished A marker shall seminate signal in automatic signalling with extinguished A marker shall seminate signal in automatic signalling with extinguished A marker shall seminate signal in automatic signal sign	show	
74. Normally the life of a detonator is		
75. Normally the life of a fusee is		
76. Life of a detonator after successful tests can be extended by one year each time subject maximum of	ed to	
77. Life of a fusee after successful tests can be extended by one year each time subjected maximum of	ed to	
78No. of detonators shall be given to a Fog signal man.		

79.	When a petrol man does not arrived to station in time as per schedule time, SR can be imposed.
80.	When a passenger train does not arrive withinmins. after running time, it shall be deemed as trains unusually delayed.
81.	When a goods train does not arrive withinmin. after running time the SM shall send search party.
82.	During thick foggy and tempestuous weather, impairing visibility detonators shall be placed at a distance of 270 mtrs. from
83.	In emergency during night a material train may be ordered by
84.	The B P C issued by T X R for a material train valid fordays.
85.	Material train should be checked by T X R once in a
86.	When a material train is stabled at station, the responsibility for the protection is lies with
87.	Provision of side lights may be dispensed with in
88.	When a token extracted and subsequently misplaced in block section, the authority for the Driver of a train by SM of rear station is
89.	When a Driver loses the token while on run in the block section he shall
90.	Authority to proceed on automatic block system is
91.	In Automatic block system when all signals and communications are failed, trains are worked on
92.	When LSS fails on single line automatic block system the ATP is
93.	When train run on T/D 912 the speed shall not exceedkmph
94.	During TSL working the second and subsequent trains proceeding on wrong line on automatic block system shall observe a speed restriction ofkmph.
95.	Example for Breach of Block Rules
96.	Interruption to through traffic for more than 12 hours on main line is called
97.	On trunk routes interruption to through traffic exceeds hours is treated as serious dislocation to traffic.
98.	Where the damage to property exceeds Rs it is treated as serious accident.
99.	First aid boxes of Station shall be checked by the respective ADMO's once in
100	If inter distance between the stationary train & the observation is less thanmtrs. outside station limits, is treated as an averted collision
101	1. An example of consequential accident is
102	2. Joint inspection of medical relief van by DMO, DSO, DME & DEE will be conducted once in
103	Outside the station section, when the distance between obstruction & the train having come to stop is less than 400 mtrs. it is treated as

	MRT is to be turned out within mins. from stations having direct ch facilities.
	MRT shall be dispatched to accident stop from stations having indirect dispatch ies within
106.	ART shall be ready within mins. by day and mins. by night.
107.	Accident siren four long and one short indicates
108.	Accident siren three long and one short indicates
109.	During day time accident relief train shall be dispatched within mins.
110.	No. of wagons loaded with explosives are allowed by goods train
111.	No. of wagons containing explosives are allowed by parcel / mixed train
112. explo	Minimum no. of guard wagons are required between wagons containing sives and a passenger carriage.
113.	On sections when double heading is prohibited distance equivalent between train e and the dead engine shall be wagons.
	On double line section during total interruption of communications the direction of shall remain
115.	During total interruption of communication all trains shall be stopped at
116.	Time interval between subsequent trains on double line at the time of total aption of communication is mins.
117.	Authority to enter into the obstructed block section in absolute block system is
118. given	During foggy weather impairing visibility in Absolute block system, caution order to Driven shall contain speed restriction ofkmph.
119.	Authority to be given to Driver during TSL working is
120.	Form No. of block ticket
121. shall l	Trolleys and lorries working during night under block protection on double line be treated as
122.	Trains not allowed on block ticket are
123.	Authority to receive a train on to an obstructed line is
124.	Authority to start a train from non-signaled line provided with common starter is
125. of	Before detaching engine within station limits where gradient is 1 in 600 hand brakes vehicles shall be applied.
126. steepe	If the wagons are fitted with roller bearing gradient is considered as er gradient.
127.	Pushing back should be done only with the permission of
128.	Whistle code to indicate fouling mark not cleared is
129.	Whistle code to alert SM to exchange all right signal is

is	The only signal that can't be taken OFF during total interruption of communication
131. clear ii	When block telephone has failed next means of communications for obtaining line n order of preference is
132. openin	A motor troley/ trolley/moped trolley shall be accompanied by while ag out communication on single line.
133.	authority will be given to Driver while returning back after opening unication with or without train on single line.
134.	During power block trains may be allowed.
135.	The danger zone is within the radius of mtr. in electrified section.
136.	When healthy section is temporarily isolate and re-energised, the SM shall issue a order to the Driver of first train to restrict the speed to kmph.
137.	The lowest rank employee who can organize line block on control telephone is
138.	Generally not more than mins. shall be allowed to a goods train to start ngine has been attached when it is not tested by vacuum exhauster/air compressor.
139.	The time permitted for GDR check of train consisting of 60 units ismins.
140.	In ghat section area the Guard and Driver will be given LR trips.
141. by	If an air brake train stalls at a gradient of 1/400 and above the brakes should applied
142.	Breathyliser test of crew is done
143.	If a detonator is exploded by a train,distance to be worked cautiously.
144.	The no. of detonators that are available with Driver are
145.	will be switched automatically in loco, during accidents.
146.	is the duty of LP while approaching LC gate.
147. before	After detaching loco from load, the safety check that is to be exercised by the Driver working light engine is
148. becom	Weather Asst. Driver can clear a section with restricted speed in case Driver ing incapacitated?
149.	If a Driver experiences abnormal jerk before IBS, where should he stop his train?
150. would	At the time of taking charge if the flasher light glows but not blink what action you take?
151.	What would you do in case you get a call to work an ART, while under rest?
152.	After which check / restriction, non derailed coaches of a passenger train involved in nt be allowed for onward journey?
153. failure	What immediate action will you take if a train stops on a gradient section due to of OHE?
154.	Action to be taken by a driver, immediately on bursting a detonator is
155.	Necessity of brake feel test is

156. What would you do if calling on signal show OFF aspect while approsignal?	oaching a stop
When LP passing IBS at 'ON' due to non-working of phone and after min speed to be maintained.	r waiting for 5
158. At what distance from obstruction detonators are placed on occ automatic signaling area?	cupied line in
159. Colour of flasher light is	
160. In absolute block system the maximum speed of the train while pushin normal conditions is kmph.	ng back during
The whistle code to indicate the train parting is	
162. The safety radius in which no person / staff should be allowed while detonator is mtrs.	le exploding a
163. In case of working with two or more engines coupled, who shall be obey the signals?	responsible to
164. After passing automatic signal at ON at what distance would you stop obstruction?	on observing
What is the maximum speed of the train during day if no contact est TPC and OHE supply is restored after 5 mins?	tablished with
166. In absolute block system on BG at what distance detonators are protection of train?	placed for a
167. The absolute block system at what distance detonators are place approach signal of the station during fog?	ed before the
On failure of OHE, after what time the flasher light should be switched	d on?
169. What immediate action would you take by noticing sudden drop of vacuum on run?	BP pressure /
Special instructions are issued by	
171. Shunting order form No	
172. General rules are issued by	
173. In emergency a goods train can be ordered without guard by	_
When a train is held up at FSS for more than mins. the depute Asst. Driver to go to the station.	e Driver shall
175. Divisional caution order form No. is	
176. Authority for a relief loco / train into the occupied block section in au system is	ıtomatic block
177. W/L board should be located at a distance of mtrs. befo double line.	ore LC gate in
178. Emergency telephone point is provided at every mtrs. in O	HE area.
179. Mock drills of ART shall be conducted once in by a safety	officer.
180. At standard III interlocking station maximum speed over M/L is	

181.	While passing through a neutral section speed of a train should not be less than
182. kmp	During TIC on D/L ATP for the Driver is and speed is h.
183.	Maximum speed for shunting operations is kmph.
184.	Authority to perform shunting into rear block section on D/L is
185. cab,	When electric loco leading cab defective and Asst. Driver is driving from trailing speed should not be exceed kmph.
186.	Speed of a train while testing detonators iskmph.
187. restr	Stop indicator is located mtrs. before the stop dead and proceed speed iction.
188.	After stopping at the stop indicator Driver shall sign in the book.
189.	When a fusee is lighted it gives a bright red flame for mins.
190. signa	While receiving a train on an obstructed line, SM shall arrange to show a stop hand al at mtrs. before the obstruction.
191.	Whistle code to indicate alarm chain pull is
192.	FP pressure in loco shall be $_{_{_{_{_{_{}}}}}}$ kg / cm <sup>2</sup> and in SLR is $_{_{_{_{_{_{}}}}}}$ kg / cm <sup>2</sup> .
193.	The most restricted aspect of a distant signal is
194.	Violently waving a white light horizontally across the body of a person indicates
195.	The signal that protects the block section is
196.	At present No. of types of interlocking standards available.

## Question Bank for Chief Loco Inspector SC Division

Sub: Official Language

- 1 When official language act formed?
- Write the communication procedure between 'A' and 'B' region central govt. officers?
- Write the communications procedure between central govt. and state government offices of various regions
- 4 Write the communications procedure between state govt. offices of various regions.
- 5 What are the states in 'A', 'B' and 'C' regions
- 6 Write short notes on proficiency in Hindi
- 7 Write short notes on working knowledge on Hindi
- 8 Write short notes on manuals, codes other Literature articles of .... etc. to be maintained in relation to official language act.
- 9 What are examinations will be held for improving Hindi and explain them briefly.
- 10 What are the incentives to be given to clerks in encouraging Hindi?
- 11 What are the incentives to be given to stenographers in encouraging Hindi?
- 12 What are the awards established for promoting Official language.
- 13 What is the importance on forming of official language?
- 14 Write your suggestions to improve the implementation of official language?

### Question Bank for Chief Loco Inspector SC Division

Sub: D & A R Objective

- 1 A Railway servant may be placed under suspension:---
  - (A) where a disciplinary action for imposition of minor penalty is pending
  - (B) where a disciplinary action for imposition of major penalty is pending
    - (C) Where a fact-finding inquiry is pending on a report against him.
  - (D) Where a case against him in respect of a Civil Suit is pending in a Court of Law.
- 2 The headquarters of a railway servant under suspension shall be :---
  - (A) The place where the Divisional headquarters is located.
  - (B) The place where his family is residing
  - (C) His last place of duty.
  - (D) No station since he is not performing duties.
- 3 Find out the deductions which should not be made from the subsistence allowance:---
  - (A) Rent for quarters.
  - (B) Income Tax
  - (C) LIC Premia
  - (D) Subscription to PF
- 4 One of the following is not a major penalty. Find out.
  - (A) Reduction to lower service / post / grade for a specified period without loss of seniority.
  - (B) Reduction to lower service / post / grade for a specified period with loss of seniority.
    - (C) Reduction to lower stage in time scale of pay for 4 years (NR).
  - (D) Withholding of increment with recurring effect for a period of 6 years.
- 5 One of the following is an irregular penalty. Find out.
  - (A) Withholding of increment with recurring effect.
  - (B) Withholding of increment with loss of seniority.
  - (C) Withholding of increment exceeding 3 years.
  - (D) Withholding of increment not exceeding 6 months.
- 6 An Enquiring Authority appointed to hold an inquiry against a railway servant :-
  - (A) should be incharge supervisory official of the unit of charged official.
    - (B) should be gazetted officer.
    - (C) should be higher than the charged official.
    - (D) should be one who is immediately in lower grade to Disciplinary Authority.
- 7 Annexure III to SF 5 is :--
  - (A) A list of Articles of Charges.
  - (B) Statements of imputations of misconduct in respect of each Article of charge.
    - (C) A list of relied upon documents.
    - (D) A list of witnesses by whom charges are proposed to be proved.

8 The purpose of issuing a charge-sheet to a railway servant, is :---(A) to warn him to be careful in future. (B) to afford him an opportunity to defend himself from the accusation.  $\mathbf{C}$ (C) Where minor penalty is imposed affecting the pensionary benefits of the charged official. (D) Where services of a railway servant are to be terminated in accordance with the terms of agreement. 9 A retired railway servant may act as defence counsel. (A) in not more than 2 cases. В (B) in not more than 5 cases. (C) in any number of cases. (D) in no case. 10 Find out the Order against which Appeal does not lie:--(A) an order of deemed suspension. (B) an order of E.O. passed during the course of enquiry. (C) an order made by the G.M. (D) an order enhancing any penalty imposed by G.M. "Charge" means - a railway servant's action :--D (A) not appriciated by the Controlling Officer. (B) of an out-standing nature. (C) violating a standing order and made known to him to explain. (D) None of the above. 12 Find out among the following the aspect which is vilotive of principles of natural C iustice :--(A) the offence alleged to have been committed by railway servant was made known to him. (B) the charged official was given an opportunity to produce defence documents. (C) the witnesses on behalf of D.A. were not allowed to be crossexamined by the charged employee. (D) the I.O. appointed to hold enquiry was a disinterested person. 13 An officer who is competent to impose the penalty of "Compulsory Retirement" C on a given railway servant, will also have the powers to impose :--(A) any other penalty lower than CR only. (B) any one of the minor penalties only. (C) penalties of 'Removal' & 'Dismissal' also. (D) no other penalty hihger or lower than Compulsory Retirement. 14 The time allowed to charged official to submit his revision petition to the B appropriate authority is :--(A) 15 days (B) 45 days (C) 60 days (D) 180 days 15 Where departmental proceedings and criminal proceedings in a Court are running B concurrently:---(A) Departmental proceedings should be finalised earlier to criminal proceedings. (B) Departmental proceedings should not be finalised till criminal proceedings are finalised. (C) Departmental proceedings should be dropped soon after the

initiation of criminal proceedings.

- (D) The Court hearing the criminal case should be advised to pend its proceedings till finalisation of departmental case.
- 16 A witness who is summoned by Disciplinary Authority to prove the charges, D deposes before I.O. in favour of charged official. Such a witness is called.
  - (A) Expert witness
  - (B) Defence witness
  - (C) Prosecution witness
  - (D) Hostile witness
  - (E) Irrelevant witness
- 17 During re-examination of a witness in the departmental inquiry by in I.O.

В

- (A) a question to bring out altogether a new evidence can be asked.
- (B) a question to explain certain statements made by him in the earlier cross-examination, can be asked.
  - (C) the witness should be asked to tell his story again.
- (D) the witness should be put questions to reiterate his answers given in the examination-in-chief.
- 18 The power to remove a doubt or interpret any of the provisions of RS (D&A) D Rules, 1968 rests with :--
  - (A) Divisional Railway Manager
  - (B) Chief Personnel Officer
  - (C) Railway Board
  - (D) The President of India
- 19 The document through which the alleged misconduct is communicated to a A railway servant advising him to submit explanation, is called :--
  - (A) Charge sheet
  - (B) Penalty Notice
  - (C) Show-Cause Memorandum
  - (D) Daily Order Sheet
  - (E) None of the above.
- 20 "Revision" under Rule 24 (2) & 24 (3) of RS (D&A) Rules is confined to railway D servants who have been imposed :--
  - (A) Any one of the MINOR penalties only
  - (B) any one of the MAJOR penalties only.
  - (C) Any penalty MAJOR or MINOR.
  - (D) Penalties of Dismissal, Removal and Compulsory Retirement.
- Where there is no presenting officer nominated, a charged official [non-gazetted- D serving-SCRailway] may present his case during inquiry :--
  - (A) With the assistance of any person.
  - (B) With the assistance of serving railway employee of any railway including Railway Board.
  - (C) With the assistance of only the serving railway employee of SC Railway.
  - (D) With the assistance of serving or retired railway employee of SC Railway.
- 22 Authority competent to nominate Inquiring Authority to hold enquiry in the D manner specified in Rule 9 of D&A Rules against a non-gazetted railway servant is:-
  - (A) General Manager
  - (B) Revising Authority
  - (C) An authority to which disciplinary authority is immediately subordinate.
    - (D) Disciplinary Authority

23 One of the following is barred from acting as Defence Counsel. Find out. C (A) A serving employee of the same railway to which charged official belongs. (B) A retired employee of the same railway to which charged official belongs. (C) A serving employee of the same railway to which charged official belongs but pm deputation to Ministry of Labour. (D) A serving Welfare Inspector. One of the following is not a penalty under DAR. Find out.  $\mathbf{C}$ (A) Withholding of Privilege Passes (B) Withholding of Post-Retirement Passes (C) Withholding of PTOs (D) Withholding of Privilege Passes and PTOs "Revision" of a penalty under Rule 25 of RS [D&A] Rules is applicable to :--25 (A) All the minor penalties only (B) All the major penalites only (C) All the minor and major penalties (D) Compulsory Retirement, Removal and Dismissal 26 An official of recognised trade union may assist a charged official during C departmental inquiry, if the charged official is :--(A) a non-gazetted railway servant only (B) either of Group-C or Group-D or Group-B only (C) a member of any group (D) another office-bearer of the same Union only Speaking order means Α (A) Reasons recorded in support of decision taken by the Disciplinary Authority (B) The memorandum communicating the penalty (C) The written statement of defence of the charged official (D) The report of the Inquiry Officer 28 Revision of one's own orders is permissible. NO 29 The competent authorities should themselves sign the communication of orders YES passed by them. Where a penalty of compulsory retirement or removal or dismissal is subjected 31 NO to suo-moto revision and the penalty is upheld, the railway servant is entitled to prefer an appeal to the authority immediately higher than the one who held suomoto revision. To enhance a penalty already imposed, the railway servant should be given an YES opportunity to show cause as to why penalty imposed on him should not be enhanced. 33 Where a charge is denied, imposition of major penalty without conducting of YES enquiry in the manner specified in Rule 9 is incorrect. For disciplinary powers conferred on authorities in a zonal railway, Schedule -I of R.S. (D&A) Rules 1968, shall be referred to. 35 Revision Authority shall be higher in rank that that of Appellate Authority YES whether appeal is preferred to or not. Denial of request of a railway servant to be heard in person before disposal of NO his appeal is not a violation of principles of Natural Justice. Disciplinary Authority is always the one who is immediately subordinate to YES Appellate Authority. Appellate Authority means the authority to which the disciplinary authority is YES immediately subordinate.

39 Where a railway servant is transferred to another railway after he has been YES imposed with a penalty, the competent authorities to dispose his Appeal and Revision Petition shall be those on the Railway where he has received the penalty. 40 A Group 'D' railway employee who has been removed from service, after his NO appeal has been disposed (Penalty upheld) by D.P.O. can prefer Revision Petition directly to GM. 41 Where a railway servant has been imposed with a penalty of reduction in time NO scale of pay and if it is operative from a future date, the railway servant may be promoted and operate the penalty in higher grade. 42 Where a railway servant has been imposed with a penalty of reduction to lower YES grade / post and reduction is operate to postpone future increments, he loses his original seniority in the grade / category from which he has been reduced. 43 No authority lower than appropriate appointing authority in relation to a NO railway servant can impose penalty of reduction to lower grade / post. 44 Penalty of withholding of PRC passes can be imposed on a railway servant who YES retired from service during pendency of DAR proceedings. NO 45 Suspension is a penalty. 46 On appeal, if penalty is reduced, revision can still be sought. YES Revision action, subject to certain exceptions, should not be initiated until after YES the period for submission of appeal is over where no appeal is preferred. 48 Where no penalty is imposed by Disciplinary Authority, Appellate Authority NO has the powers to impose the penalty on the concerned railway servant. Reduction of a railway servant to a lower post which he never held is in order NO since he continues in railway service. While imposing penalty of compulsory retirement it should be ensured that D.A YES is not lower in rank than that of the Appointing Authority. No penalty shall be imposed with retrospective effect. YES The minimum penalty that should be imposed in the case of proven illegal gratification is - one of Minor Penalties. 53 Imposition of penalty of reduction in time scale of pay with recurring effect and YES also with loss of seniority is correct. Where a railway servant has been imposed with a penalty of imposition of YES withholding of increment and if it is operative from a future date, the railway servant can be promoted if due for such promotion. 55 A Loco Pilot (Goods) of BZA Division is imposed with a penalty by ADEE / TRSO/BZA. Then he is transferred to GTL Division where he submitted an appeal against the penalty. The Appellate Authority in this case is Sr.DEE /TRSO/ GTL Division. 56 Imposition of major penalty without conducting an inquiry in the manner NO specified in Rule 9, where all charges are admitted, is prohibited.

Appellate Authority need not be immediately subordinate to Revising YES

Authority in all cases.

penalty by Revising Authority where no penalty has been imposed by Disciplinary Authority. 59 Association of railway servants with Organisation banned under Unlawful YES Activities (Prevention) Act, 1967, are liable to be dealt in departmental proceedings. 60 A railway servant seeking election to the post of a Director in which he has to YES exercise administrative responsibility should obtain prior sanction of the Competent Authority. Failure on the part of the Supervisory Official to ensure the integrity and YES devotion to duty of all staff working under his control is a violation of Conduct Rules. 62 Railway servants are not prohibited from bringing any outside influence in NO respect of allotment of residential quarters. A railway servant has been under suspension. Major penalty proceedings have been initiated. Finally minor penalty is imposed. Hence the period of suspension shall be treated as -----64 The powers to revoke suspension order lie with -----Disciplinary Authority Suspension period shall be treated as duty when -----Minor penality 65 imposed When charge sheet [SF 5] issued for unauthorised absence, Necessary 66 quoting rule 3 (1) (i) [maintain absolute integrity at all times] is-------- ( necessary / not necessary ) 67 In the cases where it is proposed to impose punishment of President of India withholding of pension, the show-cause Notice is to be issued by ----- (Discipllinary Authority on the Railway / President) 68 A railway servant on deputation to an outside body ----- Cannot be (can be / cannot be) permitted to be a Defence Councel to another railway servant in a departmental inquiry. 69 Whether a railway servant under suspension can be permitted to Can be permitted act as Defence Counsel? 70 The maximum number of cases, at any point of time, a serving Two cases railway servant can accept to be the Defence Counsel are -----71 A retired railway servant may be permitted to be the Defence Five cases Counsel in not more than ----- cases at any given point of time. 72 Whether there is any bar for initiation of departmental proceedings on the same charge where criminal proceedings are already in process in a Court of Law? "Dismissal" from service causes loss of employment, pension, --- Gratuity and PF ----- and -----74 "Removal" from service causes ----- and ----- and -----Employment and Pension The effect of withholding of increment with cumulative effect is Seniority loss of -----76 Write the circumstances in which a retired railway servant of SC Cannot permitted Railway against whom departmental enquiry is pending can have a serving railway servant of Western Railway as Defence Counsel 77 As per the model time schedule, the major penalty proceedings 150 days or 5 are to be completed within ----- [period - days or months]

58 Show cause Memorandum need not be issued to a Railway servant to impose a NO

78	There are three kinds of Charge-sheets bearing SF Nos		
79	Article of charge means	(b) Allegations made against charged employee.	
80	Annexure IV to SF 5 carries	List of Witnesses to be examined	
81	A supervisory official holding independent charge of a Unit has the powers to impose penalty of Censure on	Minor penalty charge sheet	
82	A railway servant under suspension does not receive any pay for the period of suspension but receives	After revoked	
83	An exparte inquiry means an inquiry held in the absence of	Charged employee	
84	Where an appeal is disposed by Chief Personnel Officer [Admn] revision petition lies to	General Manager	
85	The time allowed to a railway servant to nominate a person to be his Defence Counsel is days from the date of appointment of E.O.	10 days	
86	A legal practioner can be permitted to be a Defence Counsel to a railway servant where in a case official is nominated as to present the case in support of charges, on behalf of Disciplinary Authority, before the Inquiring Officer.	Railway, Presenting Officer	
87	The time allowed to a railway servant to submit written brief of defence is days after receipt of charge-sheet.	10 days	
	G&SR/Accident Manual		
Fill i	n the Blanks		
1. 2. 3.	Accidents are classified intocategories and they areTrain accidents are divided intoparts and they areLoss of railway property above Rs is treated as serious accidents.	 lent.	
4. 5.	Consequential train accidents that are reportable to Railway Board General target time for turning out ART during day / night is minutes.	Safety Directorate are	
6. 7. 8.	General target time for turning out MRV with direct / indirect despatch facility is minutes. Composition of MRV is and		
8. 9.	Mock drill for ART / MRV shall be conducted once in in case they are not moved on account of accidents is the ex-gratia to be paid in case of death/serious injury /	simple injury in train	
	accidents.		

- Gate accidents where prima-facie failure is on Railways.

  11. Rs...... is the compensation paid in cases of death in train accidents.
- 12. Accident siren three long, one short indicate -----
- 13. Accident siren four long, one short indicate -----
- 14. ---- is the duration of long siren and ----- is the duration of short siren.
- 15. Threshold value of Railway property loss is fixed at Rs..........
- 16. In the event of breakdown of control telephone, trains shall be given precedence over each other -in that process running of Goods trains takes ------place.

----- is the ex-gratia to be paid in case of death / serious injury / simple injury at manned LC

17. Block instrument bell code 000000 indicate -----

10.

- 18. Block instrument bell code 000000000 indicate -----
- 19. BCC and PCC is valid for a period of -----
- 20. As a temporary measure when DSTE/ADSTE issue BCC for Signal Maintainers, such BCC is valid for -----and such extension is limited to -----

- 21.
- 22.

-----