

SOUTH CENTRAL RAILWAY
SECUNDERABAD DIVISION

SYLLABUS FOR PROMOTION AS JUNIOR ENGINEER IN TRS ORGANISATION through LDCE
25% Quota.

PART-A

A)	<u>Basics of electricity</u>
1)	Study of Electricity, Ohms Law, Magnetism, Electromagnetic induction, Flemings R.H. Rule, L.H. Rule, Lenz's Law, self inductance, Mutual inductance, Study of AC circuits i.e., RL, RC, RLC Circuits, Series Resonance, Parallel resonance. Current, voltage and Resistance division networks and various network combinations using R, L & C.
2)	Study of power factor and the improvement methods demand and economy in installation of electrical energy.
3)	Measurements of Resistance, current voltage, power study of various types of meters and equipments used, Megger, diode tester, ammeter, Voltmeter etc., uses of shunts, multipliers.
B)	<u>DC Generators:</u>
	Working principles of D.C. Generators, DC shunt generators, DC series generators and DC compound generators.
C)	<u>DC Motors:</u>
	Study of DC motors and their performance characteristics and Speed characteristics. DC series motor as traction motor and its suitability for traction applications.
D)	<u>Transformers:</u>
	Study of Transformers and concept of Mutual induction. Step down, Step Up transformers, Auto transformers, Current transformers and Potential Transformers. Applications of Transformers. Their role in Electricity.
E)	<u>Induction Motors:</u>
1)	Study of 3phase induction motors and their performance characteristics. Their applications, Torque speed characteristics. VFD drives and their application to Induction Motors.
2)	Study of 3 phase induction motors principle, maintenance and overhauling, study of Induction generator, working principles, study of Arno, Aux, machines of A.C. Loco
3)	Advantages of Induction motors over DC Series motors.
F)	<u>Transmission and distribution networks:</u>
	Study of transmission lines and distribution lines and under-ground cables, study of erecting the lines determination of conductor size and re-cabling of locomotives.
G)	<u>Importance of Earthing and Earth testing procedure:</u>
	Why earthing is to be done, PIPE earthing, Plate earthing, Maintenance free earthing, Study of Earth testing procedure, insulation test for various equipments and testing of insulators.
H)	Basics of Electronics, Diodes, Transistors, Amplifiers, Oscillators, GTOs, IGBTs and their properties.
I)	MCBs, Contactors, Fuses, selection of rating of MCBs, contactor, fuses based on current rating.
J)	<u>Electrical Safety and ACTS and Rules.</u>
1)	Electricity act and safe rules and Shock treatment, first aid and use of Fire Extinguishers.
K)	<u>ELECTRICAL TRD EQUIPMENT and Its BASIC Knowledge:</u>
	Electrical OHE and Its arrangement, Traction Substation Layout and its Equipment.
L)	<u>CONTROL SYSTEMS</u>
	Basics of control systems, Open loop, closed loop, gain, controller
M)	<u>Measuring instruments & Instrumentations</u>
	Basics of instrumentation, transducers, Bridges, Relays, MCBs, Sensors
N)	<u>Basics of Microprocessors & Microcontrollers</u>

O)	Basics of ICT, UDM, IREPS, ICMS, HRMS, SLAM, Word,PPT,Excel
P)	Personal safety
	<u>PART-B</u>
A)	<u>Conventional Locomotives(WAG-7, WAP-4)</u>
1)	Study of Conventional Locomotive circuits i.e., Power circuits and control circuits, parameters of A.C. Circuits, study of power supply arrangements of A.C. traction (Conventional Locomotives).
2)	Study of WAP-4 & WAG5/7 Bogie, wheel arrangements, suspension arrangements and all mechanical features like elements of Vibration, Oscillation, Damping devices, Elasticity etc. Study of Pneumatic circuitry of WAP-4 & WAG5/7, Study of various Pneumatic Valves, braking system.
B)	<u>3-Phase Locomotives (WAP-7, WAG-9)</u>
1)	Study of Electronic devices i.e., IGBT and GTOs as control switches in power circuitry and auxiliary circuitry of 3phase Locomotives.
2)	3phase induction Motors as Traction Motors: Study of Characteristics, use of 3phase induction motors for traction duty. Study of Traction Motor used in A.C locomotives. WAP7 & WAG-9 Maintenance, repairs, overhauling of Traction motors of 3Phase Locomotives.
3)	Study of 3Phase Locomotive circuits i.e., Power circuits and control circuits, parameters of A.C. Circuits, Simple calculations, study of power supply arrangements of A.C. traction (3phase Locomotives). IGBT as a control device in POWER circuits and Auxiliary converter circuits. Advantages of IGBT based Locos over GTO based Locos.
4)	Study of current collection in 3Phase Locomotives, study of roof equipments of A.C. Loco.
5)	Study of 3phase Locomotive Transformers, overhaul and maintenance of Transformers, conditions for parallel operation of transformer, Maintenance and overhauling tests to be conducted on the transformer, testing of transformer.
6)	Study of Auxiliary converter circuits (BUR circuits) and components. Auxiliary converters (BURs) power supply and load sharing between during normal condition and during isolation of one BUR. Study of fault messages and troubleshooting based on fault messages.
7)	Study of Transformer cooling circuit and function of TFP MPH & their protections.
8)	Study of SR coolant circulation and function of SRMPH& their protections.
9)	Machine room layout of 3phase locomotives. Locations of various equipment in Machine room.
10)	Study of various types of MCBs, contactors and relays, study of relays and contactors used in the 3phase Locomotives.
11)	Study of batteries in 3phase locomotives, commissioning (initial charging), maintenance and reclamation and battery charging procedures.
12)	Safe working on the 3phase locomotive; precautions to be taken, Fire preventive measures in the locomotive and study of fire fighting.
13)	Study of circuits, analysis of faults in WAG-9 Locomotives i.e., study of circuits, cabling Index and other drawings.
14)	Protective functions in three phase locomotive (ABB document 3EHP 541526), working of VCD, Failure mode operation, Inching mode operation, Constant speed control, Traction Interlock, SR Interlock and Indication of faults using BPFA & LSFL
15)	Study of WAG-9/9H Bogie, wheel arrangements, suspension arrangements and all mechanical features like elements of Vibration, Oscillation, Damping devices, Elasticity i.e., Springs and dampers etc.
16)	Study of Sander gear and Brake rigging, various types of brake systems in 3phase Loco. Differences between TBU/PBU type brake rigging and conventional Brake rigging.
17)	Study of Regenerative braking and advantages over Dynamic braking.

18)	Different lubricants used in WAP 7/ WAG9 locomotives
19)	Study of Pneumatic circuitry of WAG-9, Study of various Pneumatic Valves, braking systems. Study of E70 based and CCB based Brake systems. Study of PTDC mode of operation in CCB brake system.
20)	Study of maintenance schedules for various equipments in the 3-phase Locomotive, its periodicity. Important checks to be carried out during schedules.
21)	Study of 3phase Locomotives, testing, engine fitness and troubleshooting procedure.
22)	Different size of cables used in various circuits like power, auxiliary and control circuits.
23)	MU connection and various cocks position during MU. Operation MU combinations.
24)	RDSO Modification and SMIs implementation and maintenance of various records for 3phase Locomotives.
25)	Study of new equipments in Loco such as CVVRS, Vacuum Toilet, VCD, DPWCS, TCAS, RTIS, RMS, Wheel flange lubrication (WFL), EOTT , CAB AC and Hotel load converters, etc,
26)	Various types of transformers used in 3 phase locomotives.
27)	Locomotive dimensions.
	PART –C
1)	Railway service conduct rules, Pass rules, D&A rules, Hours of employment regulations, payment of wages act, WC act.
2)	Procurement of Stores- stocked items and non –stocked items, imprest stores, stock verification. PL number and its verification.
3)	Rules and regulations about Official Language i.e., Hindi as Official Language. Knowledge on Hindi language.


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JE - EXAM QUESTION BANK

A. Basics of Electricity

sl.no	QUESTIONS	OPT 1	OPT 2	OPT 3	OPT 4	ANSWERS
1	The resistance of a conductor is inversely proportional to its	length	Area of cross section	specific resistance	density	Area of cross section
2	The resistance of a conductor is directly proportional to	length	Area of cross section	specific resistance	density	length
3	Formula for electric power is	$P=V/I$	$P=I/V$	$P=VI$	None	$P=VI$
4	In electric heating appliances, the material of heating element is	Nichrome	copper	aluminium	Zinc	Nichrome
5	When electric current flows through a conductor, it	Gains electrons	looses electrons	no changes	becomes hot	Gains electrons
6	The total work done by an electrical appliance during its operation, is called electrical	Current	potential difference	Energy	power	Energy
7	In parallel combination of electrical appliances, total electrical power	Increases	Decreases	Does not change	remain same	Increases
8	Among which of the following resistance does not depend :	density	length	Area of cross section	temperature	density

9	A voltmeter is used to find p.d. in any electrical circuit which of the statement given below is true	A voltmeter is a low resistance instrument and is connected in series circuit	A voltmeter is a high resistance instrument and is connected in parallel circuit	A voltmeter is a low resistance instrument and is connected in direct circuit	A voltmeter is a high resistance instrument and is connected in series circuit	A voltmeter is a high resistance instrument and is connected in parallel circuit
10	Which of the following statement is not true, regarding the electrical set-up for the verification of Ohm's law:	The single key is used to switch on/off the electric circuit	The ammeter is connected in series circuit	The rheostat can only increase the resistance in electric circuit	The voltmeter is connected in parallel with the known resistance	The rheostat can only increase the resistance in electric circuit
11	The SI unit of resistance	Ohm	Joule	Watt	Newton	Ohm
12	The obstruction offered by material of conductor to the passage of electric current is known as :	Resistance	Conductance	Inductance	All of these	Resistance
13	The relation between potential difference (V) and current (I) was discovered by :	Ohm	Newton	Ampere	Volta	Ohm
14	The unit of potential difference	volt	ohm	faraday	Ampere	volt

15	The amount of work done in joules, when one unit electric charge moves from one point to another point in an electric circuit is called :	electric current	electric resistance	electric conductance	potential difference	electric conductance
16	The instrument used for measuring electric current is :	ammeter	voltmeter	galvanometer	potentiometer	ammeter
17	The SI unit of electric current is :	Ampere	volt	ohm	faraday	Ampere
18	The rate of flow of an electric charge is known as :	electric current	electric conductance	Electrical Conductor	Electric potential	electric current
20	A watt meter can be connected to a high current circuit by using	Eddy current transformer	Potential transformer	Current transformer	Shunt	Current transformer
21	A D.C voltmeter can be directly used to measure	Insulation resistance	Power factor	Frequency	polarity	Power factor
22	Electric pressure is also called	voltage	energy	resistance	power	voltage
23	The substances which have a large number of free electrons and offer a low resistance are called	conductors	semi-conductors	inductors	insulators	conductors

24	Out of the following which is not a poor conductor	Cast iron	Carbon	Copper	Tungsten	Copper
25	Out of the following which is an insulating material	gold	Paper	sliver	copper	Paper
26	The property of a conductor due to which it passes current is called	reluctance	resistance	conductance	inductance	conductance
27	Conductance is reciprocal of	resistance	reluctance	inductance	capacitance	resistance
28	With rise in temperature the resistance of pure metals	increases	decreases	first increases and then decreases	remains constant	increases
29	Three resistances of 10 ohms, 15 ohms and 30 ohms are connected in parallel. The total resistance of the combination is	5 ohms	10 ohms	15 ohms	55 ohms	5 ohms
30	In a circuit a 33 Q resistor carries a current of 2 A. The voltage across the resistor is	33 V	66 V	80 V	132 V	66 V
31	A light bulb draws 300 mA when the voltage across it is 240 V. The resistance of the light bulb is	600	800	1000	400	800

32	The resistance of a parallel circuit consisting of two branches is 12 ohms. If the resistance of one branch is 18ohms, what is the resistance of the other	18	36	48	64	36
33	Four wires of same material, the same cross-sectional area and the same length when connected in parallel give a resistance of 0.25 Q. If the same four wires are connected isseries the effective resistance will be	3	4	2	1	4
34	A current of 16 amperes divides between two branches in parallel of resistances 8 ohms and 12 ohms respectively.The current in each branch is	6.4 A, 6.9 A	6.4 A, 9.6 A	4.6 A, 6.9 A	4.6 A, 9.6 A	6.4 A, 9.6 A
35	Which of the following material has nearly zero temperature co-efficient of resistance	Porcelain	Manganin	Carbon	copper	Manganin
36	You have to replace 1500 resistor in circuit. You have no 1500 resistor but have several 1000 Q ones which you would connect	two in parallel	two in parallel and one in series	three in parallel	three in series	two in parallel and one in series
37	Two resistors are said to be connected in series when	same current passes in turn through both	both carry the same value of current	total current equals the sum of branch currents	sum of IR drops equals the applied e.m.f.	same current passes in turn through both

38	Which of the following statement is true both for a series and a parallel D.C. circuit?	Elements have individual currents	Currents are additive	Voltages are additive	Power are additive	Power are additive
39	Which of the following materials has a negative temperature co-efficient of resistance	Copper	Aluminum	Carbon	Brass	Carbon
40	Ohm's law is not applicable to	vacuum tubes	carbon resistors	high voltage circuits	circuits with low current densities	vacuum tubes
41	For which of the following 'ampere second' could be the unit	Reluctance	Charge	Power	Energy	Charge
42	The rating of a fuse wire is always expressed in	ampere-hours	ampere-volts	kWh	amperes	amperes
43	The filament of an electric bulb is made of	tungsten	copper	carbon	alluminium	tungsten
44	The resistance of a few meters of wire conductor in closed electrical circuit is	practically zero	low	high	very high	practically zero
45	If a wire conductor of 0.2 ohm resistance is doubled in length, its resistance becomes	0.4 ohm	0.6 ohm	0.8 ohm	1.0 ohm	0.4 ohm

46	Three 60 W bulbs are in parallel across the 60 V power line. If one bulb burns open	there will be heavy current in the main line	rest of the two bulbs will not light	all three bulbs will light	the other two bulbs will light	the other two bulbs will light
47	One newton meter is same as	one joule	one watt	one joule second	five joules	one joule
48	What is the working principle of a Transformer	Transformer works on the principle of self induction	Transformer works on the principle of mutual induction	Transformer works on the principle of ampere law	Transformer works on the principle of coulomb law	Transformer works on the principle of mutual induction
49	Transformer ratings are given in	kVA	HP	kVAR	kW	kVA
50	What is the current transformer	transformer used with an A.C. voltmeter	transformer used with an A.C. ammeter	transformer used with an D.C. voltmeter	transformer used with an D.C. ammeter	transformer used with an A.C. ammeter
51	Current transformers are	parallel connected type of instrument transformers	series connected type of instrument transformers	parallel connected normal transformers	series-parallel connected type of instrument transformers	series connected type of instrument transformers
52	Which of the following is not a part of transformer installation	Breather	Conservator	Exciter	Buchholz relay	Conservator
53	Transformer core is generally made of	Cannot be determined	Can be made with any of the above method	By stacking large number of sheets together	Single block of core material	By stacking large number of sheets together

54	The purpose of the transformer core is to provide _____	Low reluctance path	High inductive path	High capacitive path	High reluctance path	Low reluctance path
55	Transformers are generally designed for	one-time use	on-site problem solving	off-site problem solving	short-time use	on-site problem solving
56	Which type of flux does transformer action need	Alternating electric flux	Alternating magnetic flux	increasing magnetic flux	constant magnetic flux	Alternating magnetic flux
57	Primary winding of a transformer _____	Could either be a low voltage or high voltage winding	Is always a high voltage winding	Cannot be determined	Is always a low voltage winding	Could either be a low voltage or high voltage winding
58	Which of the following transformer, Buchholz's relay can be fixed on	Welding transformers	Oil cooled transformers	Auto-transformers	Air-cooled transformers	Oil cooled transformers
59	What is the function of a breather in a transformer	To arrest flow of moisture when outside air enters the transformer	To cool the transformer oil	To provide oxygen inside the tank	To cool the coils during reduced load	To arrest flow of moisture when outside air enters the transformer
60	An ideal transformer will have maximum efficiency at a load such that _____	copper loss > iron loss	cannot be determined	copper loss = iron loss	copper loss < iron loss	copper loss = iron loss
61	For a transformer with primary turns 400, secondary turns 100, if 20A current is flowing through primary, we will get	800A at secondary	40A at secondary	80A at secondary	5A at secondary	80A at secondary

62	The full-load copper loss of a transformer is 1600 W. At half-load, the copper loss will be	1600 W	6400 W	400 W	800 W	400 W
63	Power transformers other than distribution transformers are generally designed to have maximum efficiency around	10% overload	Near full-load	Half-load	No-load	Near full-load
64	Voltage regulation of transformer is given by	$V_2 - E_2 / E_2$	$V_2 - E_2 / V_2$	$E_2 - V_2 / V_2$	$E_2 - V_2 / E_2$	$E_2 - V_2 / E_2$
65	No-load current in the transformer is _____	Sinusoidal distorted	Sinusoidal	Steps	Straight DC	Sinusoidal distorted
66	For a 20kVA transformer with a turn ratio of 0.4 what amount of total power is transferred inductively	10kVA	8kVA	50kVA	12kVA	12kVA
67	Which of the following is not a routine test for transformers	Polarity test	Radio interference test	Core insulation voltage test	Impedance test	Radio interference test
68	The direction of rotation of a D.C. series motor can be changed by	interchanging supply terminals	interchanging field terminals	either of A. and B. above	None of the above	interchanging field terminals
69	Which of the following application requires high starting torque	Lathe machine	Centrifugal pump	Locomotive	Air blower	Locomotive

70	According to Fleming's left-hand rule, when the forefinger points in the direction of the field or flux, the middle finger will point in the direction of	current in the conductor	Voltage in the conductor	resultant force on conductor	none of the above	current in the conductor
71	When two D.C. series motors are connected in parallel, the resultant speed is	more than the normal speed	less than the normal speed	normal speed	zero	normal speed
72	What will happen if the back e.m.f. of a D.C. motor vanishes suddenly	The motor will stop	The motor will continue to run	The armature may burn	The motor will run noisy	The armature may burn
73	In case of D.C. shunt motors the speed is dependent on back e.m.f. only because	back e.m.f. is equal to armature drop	armature drop is negligible	flux is proportional to armature current	flux is practically constant in D.C. shunt motors	flux is practically constant in D.C. shunt motors
74	D.C. motors are widely used in	pumping sets	air compressors	electric traction	machine shops	electric traction
75	By looking at which part of the motor, it can be easily confirmed that a particular motor is D.C. motor	Frame	Shaft	Commutator	Stator	Commutator
76	Which of the following law/rule can be used to determine the direction of rotation of D.C. motor	Lenz's law	Faraday's law	Coloumb's law	Fleming's left-hand rule	Fleming's left-hand rule
77	The speed of a D.C. series motor is	proportional to the armature current	proportional to the square of the armature current	proportional to field current	inversely proportional to the armature current	inversely proportional to the armature current

78	D.C. series motors are used	where load is constant	where load changes frequently	where constant operating speed is needed	none of the above situations.	none of the above situations.
79	Sparking at the commutator of a D.C. motor may results in	damage to commutator segments	damage to commutator insulation	increased power consumption	all of the above	all of the above
80	The power factor at resonance in R-L-C parallel circuit is	Zero	0.08 lagging	0.8 leading	Unity	Unity
81	In a R-L-C circuit	Power is consumed in resistance and is equal to IR	Exchange of power takes place between inductor and supply line	Exchange of power takes place between capacitor and supply line	All above are correct	All above are correct
82	In an AC. circuit, a low value of kVAR compared with kW indicates	Low efficiency	High power factor	Unity power factor	Maximum load current	High power factor
83	The power factor of a D.C. circuit is always	Less than unity	Unity	Greater than unity	Zero	Unity
84	The form factor is the ratio of	Peak value to r.m.s. value	r.m.s. value to average value	Average value to r.m.s. value	None of the above	r.m.s. value to average value
85	Pure inductive circuit takes power from the A.C. line when	Applied voltage decreases but current increases	Applied voltage increases but current decreases	Both applied voltage and current increase	Both applied voltage and current decrease	Applied voltage decreases but current increases
86	The apparent power drawn by an A.C. circuit is 10 kVA and active power is 8 kW. The reactive power in the circuit is	4 kVAR	6 kVAR	8 kVAR	16 kVAR	6 kVAR

87	In a sine wave the slope is constant	Between 0° and 90°	Between 90° and 180°	Between 180° and 270°	No where	No where
88	The r.m.s. value of pure cosine function is	0.5 of peak value	0.707 of peak value	Same as peak value	Zero	0.707 of peak value
89	In a pure capacitive circuit if the supply frequency is reduced to 1/2, the current will	Be reduced by half	Be doubled	Be four times at high	Be reduced to one fourth	Be reduced by half
90	Capacitors for power factor correction are rated in	kW	kVA	kV	kVAR	kVAR
91	For the same peak value which of the following wave will 'have the highest r.m.s. value?	Square wave	Half wave rectified sine wave	Triangular wave	Sine wave	Square wave
92	The r.m.s. value of a sinusoidal A.C. current is equal to its value at an angle of _____ degrees.	90	60	45	30	45
93	Power factor of an inductive circuit is usually improved by connecting capacitor to it in	Parallel	Series	Either (A) or (B)	None of the above	Parallel
94	In a series L-C circuit at the resonant frequency the	Current is maximum	Current is minimum	Impedance is maximum	Voltage across C is minimum	Current is maximum

95	A pure inductance connected across 250 V, 50 Hz supply consumes 100 W. This consumption can be attributed to	The big size of the inductor	The reactance of the inductor	The current flowing in the inductor	The statement given is false	The statement given is false
96	In a parallel R-C circuit, the current always _____ the applied voltage	Lags	Leads	Remains in phase with	None of the above	Leads
97	Induction motor runs at _____ speed	synchronus speed	Asynchronus speed	both	None of the above	Asynchronus speed
98	Formule for Synchronus speed	$120 \times F/P$	$120 \times P/F$	$60 \times F/P$	$60 \times P/F$	$120 \times F/P$
99	Maximum torque in an induction motor depends on	Frequency	reactance	square of supply voltage	all of the above	all of the above
100	starting torque of a squirell cage induction motor is	is less than full load torque	same as full load torque	slightly more than full load torque	None of the above	is less than full load torque
101	Diode conducts in _____ biased	Forward	Reverse	Either forward or reverse	None of the above	Forward
102	GTO is ----terminal devise, IGBT is ---terminal device, Thyristor is ----terminal device	2,2,3	3,2,3	3,4,3	3,3,3	3,3,3

103	Chopper circuit function is	) converts AC to DC	converts AC to AC	Converts DC to AC	Converts fixed DC to Variable DC.	Converts fixed DC to Variable DC.
104	Resonance circuit in a combination of which parameters_____	R,L,C	R,C	R,L	diode, R, L	R,L,C
105	Harmonic filter ckt is combination of which parameters	R,L,C	R,C	R,L	diode, R, L	R,L,C
106	Hexa Decimal number system has -----no. of symbols or digital values	8	10	16	12	16
107	Decimal number system has -----no. of symbols.	8	10	16	12	10
108	A Byte has ____ no. of Bits	8	10	16	12	8
109	when a Logical gate two inputs made high and its output become high what is that Gate name----	OR	AND	NAND	1 & 2	1 & 2
110	A DC voltage measuring meter most commonly uses which type of meter_____	PMMC meter	Moving Iron meter	Tacho meter	None of the above	PMMC meter

111	Optical wave length loss commonly measures in which unit_____	Watt	Coulombs	Lux	dB	dB
112	Illumination measures in which unit_____	Watt	Coulombs	Lux	dB	dB
113	Most commonly used IC no in timer circuit is_____	) IC7432	IC 7404	IC 555	IC 7408	IC 555
114	Positive and Negative in any DC circuit can be identified by using_____instrument.	Test Lamp	capacitance meter	RLC meter	None of the above	None of the above
115	Which one is correct regarding A Squirrel Cage Induction Motor_____	It uses carbon brushes to feed armature	Rotor bars are embedded in the Armature slots	Armature winding and Stator winding available	None of are correct.	Rotor bars are embedded in the Armature slots
116	How a three phase Induction Motor can be rotate in reverse direction?	By interchanging all three phases	By inter changing any two phases	By interchanging either armature or stator winding	None of the above	By inter changing any two phases
117	How a DC series or shunt motor can be reversed	By interchanging input supply i.e positive and negative	By inter changing any two phases	By interchanging either armature or stator winding	None of the above	By interchanging either armature or stator winding
118	Which motor has highest starting Torque?	DC series Motor	DC shunt Motor	3ph Squirrel cage Induction Motor	both 1& 2	DC series Motor
119	Shunts and Multipliers are used in which measuring instruments respectively?	Wattmeter, Ammeter	) Energy meter, ammeter	Ammeter, Voltmeter	capacitance meter, Voltmeter.	Ammeter, Voltmeter

120	Shunts and Multipliers are connected to meters in _____ way to the measuring instruments	Across & Series	series & Across	series & series	Across & Across	Across & Series
121	A electrolyte capacitor has _____ type of terminals	No terminal marking	Phase and Neutral	Positive and Negative	2 & 3	Positive and Negative
122	A Surge arrester uses which type of material	Non Linear resistor	Linear resistor	capacitor	Inductor	Non Linear resistor
123	Which type of insulating material used in high rated Electrical Circuit Breakers	Vacuum	SF6	Both 1 & 2	None of the above	Both 1 & 2
124	In a measuring instrument a small straight line and a wave symbol indicates what?	DC and AC	DC and Pulsated DC	Pulsated DC and three phase	None of the above	DC and AC
125	Inductance, Resistance and Capacitance measuring units	mH, mF, Kilo Ohms	mF, ohms, lumens	H, Ohms, μ F	L, R, F	H, Ohms, μF
126	Which insulating medium is preferred in EHV circuit breakers?	SF6	Vacuum	Oil	Air	SF6
127	A Mho relay is _____	Direction relay	Non directional relay	Current relay	Both 2 & 3	Direction relay

128	differential Relay is used for_____	protection of Long lines	protection of short distance faults in transmission line	Protection of Transformer	Protection of three phase fault in lines	Protection of Transformer
129	If three 5mF capacitors are connected in Delta connection what is the resultant capacitance across any two terminals?	7.5 mF	15mF	5mF	2.5mF	7.5 mF
130	If three 5mF capacitors are connected in Star connection what is the resultant capacitance across any two terminals?	7.5 mF	15mF	5mF	2.5mF	2.5mF
131	A 50HZ frequency sine wave completes one cycle in _____ time	0.002sec	20msec	0.2 sec	2sec	20msec
132	which soft switch device commonly used in electronic circuit in place of EM relay_____?	MOSFET	BJT	Diode	Both of the above	MOSFET
133	Which transducers are used for measuring the illumination, voltage, current respectively	Lux Meter, PT, CT	PT,CT, Luxmeter	Lux meter, PT, CT	None of the above	Lux Meter, PT, CT
134	The effect of inserting a resistance in series with the field winding of a shunt motor is to:	increase the magnetic field	increase the speed of the motor	decrease the armature current	reduce the speed of the motor	increase the speed of the motor
135	The stationary alternator should not be connected to live bus-bars because it	Is likely to run as synchronous motor	Will get short – circuited	Will decrease bus - bar voltage though momentarily	Will disturb generated emf's of other alternators connected in parallel	Will get short – circuited

136	The frequency of voltage generated by an alternator having 4 poles and rotating at 180rpm is	6Hz	7200-Hz	120-Hz	450-Hz	6Hz
137	The effect of increasing air gap length in the induction motor will increase the	Power factor	Speed	Magnetizing current	Air gap flux	Magnetizing current
138	An SCR is turned off when	Anode current is reduced to zero	Gate voltage is reduced to zero	Gate is reverse biased	None of the above	Anode current is reduced to zero
139	Harmonics in transformer result in	Increased core losses	Increased I^2R losses	Magnetic interference with communication circuits	All of the above	All of the above
140	The full load copper loss of a transformer is 1600W. At half-load the copper loss will be	6400W	1600W	800W	400W	400W
141	Power transformers are generally designed to have maximum efficiency around	No Load	half Load	Near Full Load	10% overload	Near full-load
142	Two transformers are connected in parallel. These transformers do not have equal percentage impedance which results	Short-circuiting of the secondaries	Power factor of one of the transformers is leading while that of the other lagging	Transformers having higher copper losses will have negligible core losses	Loading of the transformers not in proportion to their kVA ratings.	Loading of the transformers not in proportion to their kVA ratings.
143	The changes in volume of transformer cooling oil due to variation of atmospheric-temperature during day and night is	Conservator	Breather	Bushing	Buchholz relay	Conservator

	taken care of by which part of transformer?					
144	An SCR has PN junctions.	Two	Three	Four	None of the above	Three
145	Which of the following statements is false? A) A DC motor converts electrical energy to mechanical energy B) The efficiency of a DC motor is the ratio input power to output power C) A DC generator converts mechanical power to electrical power D) The efficiency of a DC generator is the ratio output power to input power	C Only	C & D only	B only	None of the above	B only
146	The unit of magnetic flux density is the:	Weber	Weber per metre	Ampere per metre	Tesla	Tesla
147	A 4-pole three-phase induction motor has a synchronous speed of 25 rev/s. The frequency of the supply to the stator is:	50Hz	100Hz	25Hz	12.5Hz	50Hz

148	<p>In a three-phase induction motor. Which-of the following-statements are false?</p> <p>(a) The slip speed is the synchronous speed minus the rotor speed</p> <p>(b) As the rotor is loaded, the slip decreases</p> <p>(c) The frequency of induced rotor e.m.f.s increases with load on the rotor</p> <p>(d) The torque on the rotor is due to the interaction of magnetic fields</p>	All of the above	C only	B only	A and C only	B only
149	The slip speed of an induction motor depends upon	Armature current	Supply voltage	Mechanical load	Eddy currents	Mechanical load
150	The energy stored in a 10 μ F capacitor when charged to 500V is	1.25 mJ	0.025 J	1.25 J	1.25 C	1.25 J

3PHASE LOCOMOTIVES

Sl.no	QUESTIONS	OPT 1	OPT 2	OPT 3	OPT 4	ANSWER
1	WAG 9 loco is having type of bogie.	Bo-Bo flexi coil	Co-Co Tri mount	Co-Co flexi coil	Co-Co tetra mount high adhesion	Co-Co flexi coil
2	Three phase loco is having number of roof bars.	2	3	4	3+3	3
3	In 3Ø loco, SS 06 belongs to sub system	Auxiliary converter No. 1	Auxiliary converter No. 2	Auxiliary converter No. 3	Traction converter No. 1	Auxiliary converter No. 1
4	In 3Ø loco, to isolate panto No. 1 keep panto selector switch in Position	AUTO	I	II	II&I	II
5	In 3Ø loco, to switch on flasher light switch to be operated.	AFL	BPFL	ZFL	Auto brake	BPFL
6	In 3Ø loco, SS 03 belongs to sub system	Traction bogie 1	Traction bogie 2	Main power	Harmonic filter	Traction bogie 2
7	Parking brake is provided to wheels in WAG 9 loco.	1, 4, 5 & 8	2, 6, 7 & 11	2 & 11	1, 6, 7 & 12	2, 6, 7 & 11

8	In 3Ø loco, SS 01 belongs to sub system.	Traction bogie 1	Traction bogie 2	Main power	Harmonic filter	Main power
9	In 3Ø loco, Loco grounding key is(HOM operates withkey)	Solenoid valve No. 30	IG 68	IG 38	E 70	IG 38
10	In 3Ø loco, 3Ø scavenging blower collects dust from air filters of.....&	Oil cooling blower	Machine room blower	Bogie blower	Oil cooling blower & Bogie blower	Oil cooling blower & Bogie blower
11	In 3Ø loco, for charging of BP pressure COC to be kept open.	A 8 COC	74 COC	47 COC	70 COC	70 COC
12	In 3Ø loco, If ZBAN is switched ON in working cab, happens.	BP pressure drops to 'O'	FP pressure drops to 'O'	BC pressure raises to 3.5 kg/cm2	None of the above	BP pressure drops to 'O'
13	In WAG 9, maximum brake cylinder pressure with direct brake is	1.8 kg/cm2	2.5 kg/cm2	5 kg/cm2	3.5 kg/cm2	3.5 kg/cm2
14	In 3Ø loco, SS 02 belongs to sub system.	Traction bogie 1	Main power	Traction bogie 2	Harmonic filter	Traction bogie 1
15	In 3Ø loco, In case of emergency, ALP can stop the train by operating	Emergency stop switch	Emergency brake valve	BPVG	Emergency stop switch or Emergency brake valve	Emergency stop switch or Emergency brake valve

16	Procedure for quick charging of BP pressure in 3Ø loco is	Press BPVG	Keep A9 in release position	Press PVEF	Press 'Emergency stop' switch	Keep A9 in release position
17	The position of mode switch in leading cab of 3Ø loco provided with Knorr brake is	HLPR	Lead	Trail	Test	Lead
18	In 3Ø loco, Machine room blowers & their scavenging blowers works in Mode(s).	Driving mode only	Cooling mode only	Off	Driving mode & Cooling mode	Driving mode & Cooling mode
19	In 3Ø loco, normal position of 152 switch is	'0'	'1'	'Norm'	None of the above	'0'
20	In 3Ø loco, positions of 154 Switch are	I, II	Norm, I, II and I & II	Norm	0 & 1	Norm, I, II and I & II
21	In 3Ø loco, SS 04 belongs to sub system.	Traction bogie 1	raction bogie 1	Main power	Harmonic filter	Harmonic filter
22	WAG 9 loco having number of dampers in primary suspension.	8	4	64	40	8
23	In 3Ø loco, SS 08 belongs to sub system	Auxiliary converter No. 1	Auxiliary converter No. 2	Auxiliary converter No. 3	Battery	Auxiliary converter No. 3

24	In 3Ø loco provided with Knorr brake, Auto brake valve (A9) handle can be locked or unlocked inposition .	Emergency	Neutral	Full service	Minimum reduction	Full service
25	Three phase loco having number of additional COCs (total coc on both sides).	4	8	16	2	8
26	In 3Ø loco, SS 05 belongs to sub system.	Harmonic filter	Battery	Batteries	Hotel load	Hotel load
27	WAG 9 loco is provided with No. of direct brake cylinders and No. of parking brake cylinders.	12 & 4	12 & 12	4 & 12	12 & 6	12 & 4
28	3 phase loco is fitted with type of traction motors.	3 Ø AC Asynchronous squirrel cage induction motor	TAO 659	Hitachi	Hitachi or TAO 659	3 Ø AC Asynchronous squirrel cage induction motor
29	When three phase loco is attached as dead and if parking brakes are released manually, parking brake pressure gauge shows kg/cm2 .	0 Kg/cm2	4 Kg/cm2	5 Kg/cm2	6 Kg/cm2	0 Kg/cm2
30	In 3Ø loco, Continuous glowing of LSFI indicates	Priority 1 fault	Priority 2 fault	At least one sub system is isolated	Priority 1 fault or Priority 2 fault	At least one sub system is isolated

31	In 3Ø loco, position of control Electronics (CE) during cab changing is	OFF	ON	Self hold mode	None of the above	Self hold mode
32	In 3Ø loco, location of BPFL switch is	FLCU	In both cabs Panel A	In both cabs Panel B	In both cabs Panel C	In both cabs Panel C
33	In 3Ø loco, during self hold mode, CE will remain in ON for minutes	15	10	20	Will not Switch OFF	10
34	To move 3 Ø loco as live or dead ensure& brakes are released.	Parking brakes, proportional	Parking , Direct brakes	Direct brakes, proportional	None of the above	Parking , Direct brakes
35	In 3Ø loco, if Throttle (ATDC) is failed, keep switch in position.	154,0	152,0	152,1	160,1	152,1
36	In 3Ø loco, when parking brakes are applied, parking brake gauge shows	0 Kg/cm2	3.5 Kg/cm2	4 Kg/cm2	6 Kg/cm2	0 Kg/cm2
37	In 3Ø loco provided with Knorr brake, when it is attached as banker, keep mode switch in.....position.	HLPR	Lead	Trail	Test	HLPR
38	In 3Ø loco, SS 15 belongs to sub system.	Cab 2	Memotel (Speedometer)	Fire detection	Processor FLG1	Fire detection

39	Location of Emergency stop push button switch in three Ø loco is	In both cabs Panel A	In both cabs Panel B	In both cabs Panel C	In both cabs Panel D	In both cabs Panel A
40	Yoke pin dia in mm new?	a. 88.9mm	b. 100mm	c. 101mm	d. 102mm	Ans: a
41	WAG 9 locos are having Number of dampers (in both primary and secondary suspension).	16	20	40	10	20
42	Three phase loco is having number of auxiliary converter(s).	1	2	3	4	3
43	In 3Ø loco, when harmonic filter is isolated, speed of the train is restricted to	60 Kmph.	40 Kmph.	25 Kmph	No such restriction	40 Kmph.
44	Three Ø loco having No. of 3 phase auxiliary motors in loco under frame.	2	4	12	8	4
45	In 3Ø loco, location of Bogie blower No. 2 is	Machine room No. 1(near cab-2)	Machine room No. 2(near cab1)	Under machine room No. 1	Under machine room No. 2	Machine room No. 1(near cab-2)
46	If RS pressure is below 8 Kg/cm ² and MCPs are not working, MCPA starts automatically provided BL key is in Position.	"C"	"D"	"C" or " D"	None of the above	"C" or " D"

47	In 3Ø loco from Cab 1, if both side head lights are not working checkMCB in SB1 panel.	310.1/1.	310.1/3 .	310.1/2.	112.1 .	310.1/1.
48	In 3Ø loco before operating throttle, ensure node information on screen.	FLG 504	FLG 550	FLG 570	FLG 590	FLG 590
49	WAG 9 loco having number of helical springs in primary suspension.	8	16	4	32	32
50	In 3Ø loco, loco grounding switch is	HOM	BL key	Blue KABA key (IG 38)	HPT	Blue KABA key (IG 38)
51	In 3Ø loco, location of MCP 1 is	In machine room No. 1	In machine room No. 2	Below machine room No. 2	Below machine room No. 1	Below machine room No. 1
52	In 3Ø loco, Oil cooling blower cools&..... oils	SR-1 , SR2	TFP-1 , TFP2	TFP oil & SR oil	Traction motors	TFP oil & SR oil
53	In 3Ø loco, to isolate truck No. 1 (traction converter-1), keep.....switch in.....position.	154 , I position	154 , II position	154 , Auto position	154 , I & II position	154 , I position
54	In 3Ø loco, if battery voltage drops to volts for 30 seconds, P2 message appears.	92 Volts	82 Volts	90 Volts	85 Volts	92 Volts

55	In 3Ø loco, for application of parking brakes speed should be below.....	5 Kmph	15 Kmph	1.5 Kmph	Zero Kmph	5 Kmph
56	In 3Ø loco, SS 16 belongs to sub system	Cab 2	Fire detection	Memotel (Speedometer)	Processor FLG1	Memotel (Speedometer)
57	In proportional working, maximum brake cylinder pressure in WAG 9 loco is	1.8 kg/cm2	3.5 kg/cm2	2.5 kg/cm2	5 kg/cm2	2.5 kg/cm2
58	In 3Ø loco, normal position of panto selector switch is	Norm	I	II	Auto	Auto
59	In 3Ø loco, location of Fire detection unit (FDU) is	SB 1	SB 2	HB 2	Panel 'C'	SB 2
60	In 3Ø loco, between two operations of PSA pressing for sanders,time gap is required.	10 to 12 Minutes	10 to 12 Seconds	12 to 15 Seconds	30 Seconds	10 to 12 Seconds
61	Battery voltage in three phase loco should be Above Volts	85	90	92	110	92
62	Three phase loco is having number of battery boxes.	2	4	6	32	2

63	Three Ø loco having number of single phase auxiliary motors	12	4	8	13	4
64	In 3Ø loco, to operate reverser ensure node information on screen and MR pressure should be more than 6.4 kg/cm2	FLG 504	FLG 550	FLG 570	FLG 590	FLG 570
65	In 3Ø loco, battery charger input MCB No. is and located in	100 , HB-1	100 , HB-2	112.1 , SB-2	112 , SB-1	100 , HB-2
66	In 3Ø loco, if speed is more than % than loco MPS, only audio visual indications will appear.	0.005	0.05	0.15	0.5	0.05
67	Over current relay in three Ø loco is	OCR 86	MVR 86	OCR 78	None of the above	OCR 78
68	In 3Ø loco, to switch OFF control electronics procedure of operating BL key is.....	"D" to "OFF" wait for 2 to 4 seconds	"OFF" to "C" wait for 2 to 4 seconds	"C" to "OFF"	All the above	All the above
69	In 3Ø loco, SS 18 belongs to sub system.	. Fire detection	Memotel	Processor FLG 1	Processor FLG 2	Processor FLG 2
70	In 3Ø loco, for cooling mode procedure of operating BL key is	"D" to "OFF" wait for 2 to 4 seconds	"OFF" to "C" wait for 2 to 4 seconds	"C" to "OFF" then to "C" again	All the above	All the above

						
71	In 3Ø loco, normal position of ZTEL switch is	ON	OFF	'Norm'	Zero	OFF
72	In 3Ø loco, to close the DJ, ensure node information on screen (in driving mode).	FLG 504	FLG 550	FLG 570	FLG 590	FLG 550
73	When ZTEL is switched ON Tractive Effort(TE) is limited to kN in WAG 9.	0.8 to 1.5 KN	300 KN	150 KN	458 KN	300 KN
74	In 3Ø loco, to isolate panto No. 2 keep panto selector switch in position and close..... coc.	Auto , PAN 1 & 2	II , PAN 1	I , PAN 2	I & II , PAN 1 or 2	I , PAN 2
75	In 3Ø loco, from cab 2, if both side head lights are not working check MCB No. in SB2 panel.	310.1\1	310.1\3	310.1\4	310.1\2	310.1\2
76	In 3Ø dead loco, COC should be open for charging BP pressure into auxiliary reservoir.	70COC	47COC	74COC	136COC	47COC
77	While 3Ø loco working as banker, put on Switch and close 70 cut out cock in pneumatic panel.	ZTEL	ZBAN	BLNO	None of the above	ZBAN

78	. For resetting VCD in WAG 9 loco, Wait for Seconds in E70	120	100	240	160	120
79	. For resetting VCD in WAG 9 loco, Wait for Seconds in CCB 2.0	120	100	240	32	32
80	Location of MCP 2 in three Ø loco is	Machine room No. 1	Machine room No. 2	Loco left side below Machine room No. 1	Loco right side below Machine room No. 2	Loco right side below Machine room No. 2
81	In 3Ø loco, SS 17 belongs to sub system.	Fire detection	Memotel	Processor FLG 1	Processor FLG 2	Processor FLG 1
82	Before performing shunting with 3Ø loco, keep switch in position.	154 ; 0	154 ; 1	160 ; 0	160 ; 1	160 ; 0
83	While working with WAG 9 with light load, if Harmonic filter is isolated, work with normal speed after isolating	Auxiliary converter-1	Traction converter-1 & 2	Auxiliary converter-2	Traction converter-1	Traction converter-1
84	In 3Ø loco, to isolate VCD, keepswitch in Position	154,1	154,0	237.1,0	237.1,1	237.1,0
85	In 3Ø loco, Battery charger gets supply from	Auxiliary converter No. 1	Auxiliary converter No. 2	Traction converter No. 1	Auxiliary converter No. 3	Auxiliary converter No. 3

86	In 3Ø loco, if battery voltage drops below volts, loco will shut down.	82 Volts	87 Volts	90Volts	92Volts	82Volts
87	In 3Ø loco, Battery charger output MCB No. is and its location is at.....	110 ; SB 1	110 ; SB 2	100 ; HB 1	100 ; HB 2	110 ; SB 2
88	In 3 phase locos, normal position of direct brake handle (SA9) in rear cab is	Apply	Release	FS & Locked	None of the above	Release
89	In 3Ø loco, VCD is required to acknowledge from kmph of speed onwards.	5	1	1.5	15	1.5
90	In 3 phase locos, when parking brakes are released PB gauge shows Kg/cm2	3.5	0	5	6	6
91	During loco brake testing WAG 9 loco should not to move up to	100	150	300	125	150
92	In 3Ø loco, continuous pressing of PSA for more than 60 seconds is called asmode.	None of the above	VCD acknowledgement	Dead man	VCD isolation	Dead man
93	In 3Ø loco, Constant speed control (CSC) can be activated above kmph of speed.	5	1	1.5	15	5

94	In 3Ø loco inching mode, minimum speed is kmph and maximum speed is kmph	0.8 & 1.5	0.5 & 15	0.5 & 1.5	0.8&0.5	0.5 & 1.5
95	Three phase loco is provided with Number of batteries.	110	13	26	78	26
96	In 3Ø loco, for 'Driving' mode, move BL key fromposition to Position	D' to 'OFF'	OFF' to 'D'	'OFF' to 'C'	'D' to 'OFF' then to 'D'	OFF' to 'D'
97	In 3Ø loco, Auxiliary converter No. 2 feedsmotors (write any two).	Traction motor blower 1 & 2	Transformer oil pump 1 & 2	SR Oil pump 1 & 2	Any one of the above	Any one of the above
98	In 3Ø loco, glowing of BPFA and flickering of LSFI indicatesfault.	Isolation of sub system	Priority 1	Priority 2	Both Priority 1 & 2 faults at a time	Priority 1
99	While energizing 3Ø loco if UBA meter showing "0" and corridor lights also not glowing check, MCB No.	100	110	112	112.1	112
100	Expand 'F0201P1' in 3Ø loco.....	Fault in Traction Bogie No. 1	Priority 1 fault	S. No.1 in priority-1	All the above	All the above
101	In 3Ø loco, if vigilance penalty brakes are applied BP pressure drops to kg/cm2	2	2.5 to 3.0	2.5 to3.0	0	2.5 to 3.0

102	In 3Ø loco, during cab changing, before leaving cab keep direct brake handle (SA9) inposition.	Apply	Release	FS & Locked	None of the above	Release
103	Maximum permissible speed of WAG 9 loco is Kmph.	100 Kmph.	130 Kmph.	140 Kmph.	160 Kmph.	100 Kmph.
104	In 3Ø loco, on moving BL key from 'D' to 'OFF' position, brakes will apply automatically.	Direct brakes	Auto brakes	Parking brakes	All brakes	Parking brakes
105	In 3Ø loco, parking brakes are applied and released through switch	Solenoid valve	BPCS	BPPB	None of the above	BPPB
106	To apply or release parking brakes in 3Ø dead loco provided with knorr brake, operate	PBRCOS	PERCOS	PBPDS	PBBUS	PBBUS
107	In 3Ø MU locos, COCs to be opened and COCs to be closed in trailing loco (slave loco).	47 ; 70, 74 & 136	70, 74 & 136 ; 47	70 & 74 ; 136 & 47	74 , 70; , 47 &136	74 , 70; , 47 &136
108	In 3Ø loco, SS 14 belongs to sub system.	Cab 1	Cab 2	Fire detection	Auxiliaries in HB 2	Cab 2
109	In WAG 9 at a time number of traction motors can be isolated.	1	2	3	4	3

110	In 3Ø loco, each Auxiliary converter output supply is	830 Volts	380 Volts $\pm$ 22.5% of AC 3 Ø	550 Volts of AC 3 Ø	415 Volts of AC 3 Ø	415 Volts of AC 3 Ø
111	Hotel load facility is available in loco(s).	WAP 5	WAP 7	All WAP 5 and modified WAP 7	All three phase locos	All WAP 5 and modified WAP 7
112	In 3Ø MU locos, panto of leading loco and panto of trailing loco will raise.	Leading; Leading	Leading; Trailing	Trailing; Leading	Trailing; Trailing	Leading; Trailing
113	While clearing 3Ø loco (provided with Knorr brake) as dead, mode switch position in both cabs is	HLPR	Trail	Test	Trail	Trail
114	In 3Ø loco, Pressing of BPVG continuously for more than 60 seconds is calledmode.	VCD isolation	Dead man	VCD acknowledgement	None of the above	Dead man
115	Electrical brake in three phase loco is called as.....	Independent loco brake	Parking brake	Re-generative brake	Automatic train brake	Re-generative brake
116	In three Ø locos, VCD is required to acknowledge once in every seconds.	8	60	68	160 in WAG9 or WAP7 & 120 in WAP5	60
117	In 3Ø loco, SS 13 belongs to sub system.	Cab 1	Cab 2	Fire detection	Auxiliaries in HB 2	Cab 1

118	In 3Ø loco, Auxiliary converter No. 1 feeds tomotors.	Traction Motor Blower 1 & 2	Oil cooling Blower 1 & 2	Four oil pumps and two MCPS	All the above	Oil cooling Blower 1 & 2
119	In 3 phase locos, auto brake valve handle (A9 in E70 brake system) having number of positions.	4	5	6	2	6
120	In 3Ø loco, Auto brake handle (A9) can be inserted or taken out in position.	Potential	Main	Harmonic filter	None of the above	Potential
121	Direct brake handle (SA9) is having number of positions in 3 phase locos.	3	2	4	6	2
122	In 3Ø loco, after raising panto and touches to contact wire transformer gets supply.	Potential	Main	Harmonic filter	None of the above	Potential
123	In 3Ø loco, MCPA works up to Kg/cm2 of RS pressure.	5.2 Kg/cm2	6.4 Kg/cm2	10 Kg/cm2	6.0 Kg/cm2	6.0 Kg/cm2
124	In 3Ø loco, during general check up, to be checked which is connected between bogie transom and loco body.	Traction frame	Vertical dampers	Helical springs	Traction link	Traction link

125	In 3Ø loco, AFL actions are	TE/BE drops to 'O'	Flasher Light works	BZ-V-O-F sounds	All the above	All the above
126	 type of fire extinguishers is provided in three phase locos.	BC	DCP	CO2(Carbon dioxide)	Fixed DCP & Portable CO2	CO2(Carbon dioxide)
127	In 3Ø loco, constant speed control will de-activate automatically if BC pressure increased above kg/cm2.	1	1.5	0.25	0.6	0.6
128	In 3Ø loco, SS 11 belongs to sub system.	Cab 1	Cab 2	Auxiliaries HB1	Auxiliaries HB2	Auxiliaries HB1
129	In modified three phase loco, flasher light works when BL key is in position(s).....	Driving mode	Cooling mode	Driving mode or cooling mode	Driving mode or cooling mode or in non working cab	Driving mode or cooling mode or in non working cab
130	In 3Ø loco, on run glowing of BPFA alone indicates fault	Priority 1	One of the sub system is isolated	Priority 2	Priority 1 fault or Priority 2 fault	Priority 2
131	In 3Ø loco, before energising three Ø loco put on battery MCB No.and BA charger MCB.....	100 ; 110	112.1 ; 110	110 ; 112.1	100 ; 112	112.1 ; 110

132	In 3Ø loco, if any fault occurs, it will be displayed in	Memotel	Display screen	a & b of above	None of the above	Display screen
133	In three phase locos number of sub systems is provided.	18	19	17	5	19
134	If BP is not charging beyond 3 kg/cm ² in In 3Ø Knorr brake loco, keep auto brake valve(A9) in position for 10 seconds and bring back to Run.	Release	Full Service	Emergency	Minimum reduction	Full Service
135	Location of Harmonic filter resistances in 3Ø loco is	Loco roof	Inside FB	d. Minimum reduction	By the side of pneumatic panel	Loco roof
136	BL key positions in three Ø loco are.....	"OFF"	"D"	145	"OFF" , "D" & "C"	"OFF" , "D" & "C"
137	In 3Ø locos, LSCE lamp glows when CE temperature is increased more than.....0C,.	100	92	Location of Harmonic	70	70
138	In 3Ø loco, purpose of 'Hotel load' is	For working of MU	For pneumatic supply to coaches	For working of coaches	For electrical supply to complete formation AC coaches	For electrical supply to complete formation AC coaches
139	In 3Ø loco, SS 12 belongs to sub system	Cab 1	Cab 2	Auxiliaries HB1	Auxiliaries HB2	Auxiliaries HB2

140	To apply parking brakes in 3Ø dead loco, press. side plunger of solenoid valve.	Left	Any plunger	Right	None of the above	Left
141	In 3Ø loco, UBA meter needle deviates when BL key is in mode of BL key.	Driving	Cooling	Driving or Cooling	None of the above	Driving or Cooling
142	WAG 9 locos are having number of drain cocks	2	3	4	5	4
143	In 3Ø loco, to bring isolated sub system into service (system isolated sub system) procedure is	Switch OFF and switch ON CE	Reset concerned MCB	Close concerned COC	Operate concerned rotating switch	Switch OFF and switch ON CE
144	In 3Ø loco, in failure mode operation, positions of throttle only will be in service.	0.33	0.67	1	All the above	All the above
145	In 3Ø loco, Status code '00' means	Major fault in loco	No sub system isolated	Minor fault in loco	No fault and No sub system isolated	No fault and No sub system isolated
146	In 3Ø loco, during loco brake test, ensure BC gauge shows kg/cm2, BP gauge shows kg/cm2 and PB gauge shows kg/cm2.	3.5 , 5 & 0	3.5 , 5 & 6	0, 5 & 6	None of the above	3.5 , 5 & 6

147	If speed of the train is increased more than % than loco MPS, emergency brakes will apply in 3Ø loco.	0.005	0.05	0.1	0.5	0.1
148	In 3Ø loco, Auxiliary converter No. 3 feeds motors(write any two).	Three Ø scavenging blower 1&2	MCP 1 & 2	Battery charger	All the above	All the above
149	In 3Ø loco, Constant speed control (CSC) will be de-activated automatically if BP pressure drops (with or with out A9) more than kg/cm2 .	1	1.5	0.25	0.6	0.25
150	In 3Ø loco, to isolate truck No. 2 (traction converter-2), keep.....switch in.....position.	154 , I	154 , II	154 , Norm	154 , I & II	154 , II
151	In 3Ø loco, SS 10 belongs to sub system.	Battery	Brake system	Auxiliaries HB1	Auxiliary converter No. 3	Brake system
152	In 3Ø loco, Constant speed control (CSC) will be de-activated automatically if throttle disturbed above % in TE side or BE side.	0.33	0.66	0.03	No such limit, on moving throttle	0.03
153	In 3Ø loco, location of Bogie blower No. 1 is	Machine room No. 1(near cab-2)	Machine room No. 2(near cab-1)	Under machine room No. 1	Under machine room No. 2	Machine room No. 2(near cab-1)

154	In gradient area and terminal goods yards Constant speed control (CSC) of 3 phase loco should not be used.	Up	Down	Steep down	Undulating	Undulating
155	In 3Ø loco, acknowledge the fault message by pressingbutton.	'Ack' key in panel C	BPFA	BPCS	BPVR	BPFA
156	While working three Ø loco as banker, close COC in pneumatic panel.	70	74	136	ALL THE ABOVE	70
157	In 3Ø loco, to reset the Fire detection unit (FDU) press thebutton	BPFA	reset button on FDU	Rotate Emergency stop button	BPVR	reset button on FDU
158	In 3Ø loco,..... auxiliary motors works only in cooling mode(write their names).	All three Ø and single Ø motors	Only single Ø motors & MCPA	All single Ø motors and MCP 1 & 2	None of the above	Only single Ø motors & MCPA
159	In three Ø loco, if 'Catenary voltage out of limit' appears on screen, change Fuse after lowering panto and try.	FL	CCBA	No need to Change	Potential Transformer	Potential Transformer
160	In three Ø loco, SS 09 belongs to sub system.	Battery system	Brake system	Auxiliaries HB1	Auxiliary converter No. 3	Battery system

161	In 3 phase knorr brake loco, rear cab mode switch position is	HLPR	Lead	Trail	Test	Trail
162	In 3 phase loco cab changing is to be done with in minutes otherwise CE will switch OFF.	10	0	15	20	10
163	In 3 phase locos, Harmonic filter resistances are cooled by	Atmospheric air	Blower	Pneumatic pressure	None of the above	Atmospheric air
164	In 3 phase locos, in cooling mode, for panto and DJ Creates pressure.	MCPs	MCPA	Both a and	None of the above	MCPA
165	In three Ø loco potential transformer is connected to roof bar.	Middle	Panto 1	Panto	None of the above	Middle
166	In 3Ø loco, In case of emergency, ALP can stop the train by operating	Emergency stop switch	Emergency brake valve	BPVG	Emergency stop switch or Emergency brake valve	Emergency stop switch or Emergency brake valve
167	The axle load of WAG 9 is - -----	23 ± 2% tones	21.5 ± 2% tones	27.5 ± 2% tones	20.5 ± 2% tones	20.5 ± 2 % tones
168	Type of three phase locomotive available on Indian Railways	WAP1/WAP5/WAP4	WAG7/WAG9/WAP7	WAP5/WAP7/WAG9	WAP4/WAP7/WAG9	WAP5/WAP7/WAG9

169	Advantage of three phase locos.	Regenerative basis	UPF	Both a & b	None of the above	Both a & b
170	In 3 phase locomotives, three phase indicates?	Three phase OHE supply system	Three phase supply to the motor	Both a & b	None of the above	Three phase supply to the motor
171	Higher horse power locomotive available with type of locomotive on Indian Railways.	WAG9	WAP7	WAG7	WAP4	WAP7
172	Important power device used in three locomotive for power conversion	IGBT	GTO	Transistor	IGCT	IGBT
173	Type of Pantograph used in 3 phase	AM12	AM92	IR03H	Both b & c	AM12
174	Different gear ratios in WAG-9 loco is	15:77, 18:64	15:77, 21:107	15:77, 21:107	15:77, 17:77	15:77, 21:107
175	Voltage applied to Traction Motors (Phase to Phase) in WAG-9 loco is	2180 Volts	2800 Volts	750 Volts	None of the above	2180 Volts
176	If ZBAN is switched "ON"	FP drops to zero	Over charging of BP takes place	BP drops to zero	BP & FP drops to zero	BP drops to zero
177	Machine Room blower-I receives supply from	BUR-1	BUR-2	415 Volts directly	110Volts directly from Transformer	415 Volts directly

178	Machine Room blower works	In cooling mode	In driving mode	In cooling and Driving modes	In Driving and self hold mode	In cooling and Driving modes
179	Minimum Voltage relay in 3 phase locos is for	Sensing of OHE Voltage in driving mode	Sensing of OHE Voltage in cooling mode	Voltage protection in self hold mode	Over voltage protection in simulation mode	Sensing of OHE Voltage in cooling mode
180	Purpose of using single phase machine Room blower in 3 phase locos	Facilitating to work in driving mode for cooling machine room	Facilitating to work in self hold mode for cooling machine room	Facilitating to work in simulation mode for cooling machine room	Facilitating to work in cooling mode for cooling machine room	Facilitating to work in cooling mode for cooling machine room
181	Minimum voltage relay in three phase locos	86 in SB-2	78 in SB-1	86 in SB-1	78 in SB-2	86 in SB-1
182	For working in cooling mode BL is to be operated from	D-OFF-C	D-OFF-C	D-OFF-C-OFF-C	b & c	A&B SAME
183	Continuous glowing of LSFI indicates	Any of the sub-system is isolated	A priority-II fault	Any auxiliary motor is isolated	None of the above	Any of the sub-system is isolated
184	DC Link voltage of Traction Converter is	1172 Volts	2180 Volts	2800 Volts	None of the above	2800 Volts
185	Battery charger rectifier in 3 phase locos:	Half Wave	Bridge Full wave	Full Wave center tap	Both b & c	Bridge Full wave
186	BUS STATION cooling fans work on	110Volts	48Volts DC	24Volts DC	110Volts AC	48Volts DC

187	MUB acts when DC link Voltage reaches:	2800 Volts	2100 Volts	3200 Volts	3000 Volts	3200 Volts
188	VCB trips when transformer oil temperature rises to	80 degrees	84 degree	75 degrees	70 degrees	84 degree
189	Output of Auxiliary winding is	415Volts	1000Volts	2100Volts	1200Volts	1000Volts
190	In three phases locos Priority-II message means	Trips VCB	Shut down loco	Isolates sub-system	Allows normal functioning	Allows normal functioning
191	"ASC:0081-PS Fault Storage CGP" message is logged in three phases based on	Differential voltage	Differential current	Differential earth fault	None of the above	Differential current
192	VCB trips when auxiliary circuit current exceeds	280Amps	400Amps	500Amps	1000Amps	400Amps
193	Output frequency of a Traction Converter is	60-120HZ	65-132HZ	50-100HZ	None of the above	65-132HZ
194	ZTEL switch is used in	Banking mode	Inching mode	Simulation mode	None of the above	Inching mode
195	Type of batteries used in three phase locos	NiCd	Both a & c	Lead Acid	None of the above	NiCd

196	Time delay of Timer relay in MR Blower	08 sec	10sec	12sec	05 sec	10sec
197	Current rating of OCB MCB is	40 Amps	63 Amps	80 Amps	16 Amps	63 Amps
198	In STB-1 signal "AMSB 0102 LVCB" "L" indicates	Action of the loco driver	Message	Command order	None of the above	Action of the loco driver
199	The brake application time through DBC in WAG-9 locos is	06 to 09 secs	10 to 15 secs	15 to 20 secs	15 to 20 secs	15 to 20 secs
200	Number of electronic cards available in E-70 panel	4	6	2	3	4
201	The pressure switch associated with working of Baby compressor is	Pn 26	Pn 60	Pn 59	Pn 6	Pn 26
202	The number of sanders to be kept in service in WAG-9 locos is	8	12	4	None of the above	8
203	In E-70 brake system locos the coc-47 is used for	Moving the loco dead	Application of brakes through A9	Operation/Isolation of PBU	Operation/Isolation of sanders	Moving the loco dead
204	The size of choke available in sander circuit in WAG-9 locos is	5.5mm	2mm	3mm	4mm	3mm

205	The switch used for isolation of vigilance control device is	125	154	160	237.1	237.1
206	The operating pressure of contactors in TC1, 2 & HF	10kg/sqcm	6kg/sqcm	5kg/sqcm	8kg/sqcm	8kg/sqcm
207	The pressure switch used for monitoring working of pantograph is	Pn 44	Pn 60	Pn 09	Pn 26	Pn 09
208	After completion of self-test in 3Ø locomotives following node will appear	590	570	550	504	504
209	Conversion of BP control pressure into electrical signal in 3Ø locomotives is done by_____.	Pressure sensor	Pressure switch	Pressure transducer	None of the above	Pressure transducer
210	260 indicate _____equipment.	Filter block	SR rack	Pneumatic panel	BUR	Pneumatic panel
211	MU is not possible if _____card is defective in any one of the 3Ø locomotives.	SLG1	ALG1	FLG1	SLG2	FLG1
212	If MVR is not picking up then_____. _____.	Traction not possible	RB not possible	Cooling mode not possible	Driving mode not possible	Cooling mode not possible

213	_____ & _____ proces sor cards present only in VCU1 and VCU2 respectively.	FBV, DIA	STB, FBV	ZBV, DIA	STB, ZBV	ZBV, DIA
214	_____ no. of processor cards is interchangeable between VCU1 and VCU2 after reloading the appropriate software.	2	5	6	3	5
215	SLG1 & SLG2 is interchangeable by changing _____ _____.	Hex address & Software	Software	Hex address only	Not interchangeable	Hex address & Software
216	TM speed sensor output is connected to _____ card in the _____ rack.	ASC PERI, SR	NSC PERI, SR	STB, VCU	HBB, VCU	ASC PERI, SR
217	Number of TFP and SR oil pressure sensors available in loco are _____ and _____ _____ respectively .	4,4	4,2	2,4	1,2	4,2
218	BUR 1 & 2 operate at _____ Freq uencies. i) 37 Hz ii) 50 Hz iii) 44 Hz	I & II	I, II & III	II only	I & III	I & II
219	Consider following activities 1. SR changing 2. SRMPH changing 3. OCB radiator changing	1&4	2 & 3	2 & 4	1 & 3	1 & 3

	4. VCB changing Which of the above activities requires roof lifting?					
220	Consider following activities 1. TM changing 2. Wheel Set changing 3. Axle damper changing 4. PHS changing Which of the above activities requires loco lifting?	1 & 4	3 & 4	2 & 3	1 & 2	1 & 2
221	Correct arrangement of foot switches in 3Ø locomotives from Left to right in loco cab is_____.	PVCD PVEF PSA	PSA PVCD PVEF	PVEF PSA PVCD	PSA PVEF PVCD	PSA PVEF PVCD
222	In SR1 rack of 3Ø locomotives, speed sensor connected to Sub-D "C" senses speed of _____.	TM3	TM2	TM1	TM4	TM2
223	For performing shunting _____ switch to be kept in _____ position and the speed limit is _____ kmph.	154, 'I", 10 kmph	152, '0", 5 kmph	160, 'I", 15 kmph	162, '0", 5 kmph	160, 'I", 15 kmph
224	While working loco in _____ mode, VCD need not be acknowledged.	Shunting	Constant Speed	Inching mode	Braking mode	Inching mode

225	Which of the following statement is correct.	Teeth of bull gear of WAG9 $\leq$ Teeth of bull gear of WAP7	Teeth of pinion of WAG9 $>$ Teeth of pinion of WAP7	Teeth of bull gear of WAG9 $>$ Teeth of bull gear of WAP7	None of the above	Teeth of bull gear of WAG9 $>$ Teeth of bull gear of WAP7
226	The number of teeth on the M/s ARC make Hall effect speed sensor ring are_____.	30	120	60	90	120
227	If the TM rotates at a speed of 600 rpm then the frequency of pulse generated by ARC make speed sensor is_____.	1.8 KHz	0.6KHz	0.3 KHz	1.2 KHz	1.2 KHz
228	Consider following statements 1. No Inductance variation between different phases of motor 2. Low IR value 3. Low Temperature rise above ambient during run test 4. Low dB level recorded during run test Which of the above statements indicates healthy motor?	1, 2 & 3	2, 3 & 4	1, 3 & 4	1, 2 & 4	1, 2 & 3
229	Contactors 52/2 in auxiliary circuit is used for redistribution of_____	MRB	SCTMB	TMB	Battery Charger	SCTMB

230	If any one of the BURs isolated which of the following indicates correct position of 52.4/1, 52.4/2, 52.5/1 & 52.5/2 Contactors.	close close close open	close open close open	close open close close	close open open close	close open close open
231	Which of the following statements is correct?	89.5 – Earth fault relay in auxiliary converter and it is located in HB1 panel	89.5 – Earth fault relay in 415/110v and it is located in HB2 panel	89.5 – Earth fault relay in auxiliary converter and it is located in HB2 panel	89.5 – Earth fault relay in 415/110v and it is located in HB1 panel	89.5 – Earth fault relay in auxiliary converter and it is located in HB1 panel
232	24V and 48V DC-DC converter feeds _____ and _____ respectively.	Electronic rack cooling fan & Indication lamps	Indication lamps & Electronic rack cooling fan	Indication lamps & Head light	Head light & Indication lamps	Indication lamps & Electronic rack cooling fan
233	Transformer in 3Ø locomotives is having _____ number of windings.	5	6	7	8	8
234	MCB for machine room lightning is _____.	310.1/1	310.7	338.1	310.4	310.4
235	_____ number of change over contactors are provided in auxiliary circuit of 3Ø locomotives.	6	9	10	8	10
236	Which of the following is not a valid zinfo for "ASC1:0082 PS fault storage GBC".	1106	120D	130E	1406	1406

237	In STB1 signal "AMSB_0102 LVCB on" "L" Stands for _____	Live voltage CKT	Line voltage CKT	Low voltage CKT	Linear voltage CKT	Line voltage CKT
238	Horse power of a WAG-9 loco is _____	6000 HP	5000 HP	7000 HP	6500 HP	6000 HP
239	Maximum tractive effort of a WAG-9 loco is _____	54 T	47T	52 T	56 T	47T
240	Maximum speed of a WAG- 9 loco is _____ =	110 KMPH	140 KMPH	100 KMPH	130 KMPH	100 KMPH
241	Maximum braking effort of a WAG-9 loco is _____	170 KN	260 KN	160 KN	189 KN	260 KN
242	Ampere- Hour capacity of a WAG-9 loco battery is _____	199	75	110	120	199
243	Lubricant used in gear cases of three phases locos is _____	460 RR	450 RR	478 RR	438 RR	460 RR
244	Number of Bus stations available in three phase locos is _____	8	6	5	7	7
245	Switch no 154 has _____ positions.	4	2	3	5	4

246	Purpose of oil cooling blowers in three phase locos is to _____	Remove this excess heat from oil circulating through the traction converter.	Remove this excess heat from oil circulating through the transformer assemblies.	Both a & b	None of the above	Both a & b
247	IN SGCI Labyrinth, SGCI stands for _____	Spheroidal grap cast Iron	Spheroidal graphite cast Iron	Spheroidal cast graphite Iron	Sphero cast graphite Iron	Spheroidal graphite cast Iron
248	Traction motor mounting arrangements in three phase locos is _____	Semi suspended on bogie frame	Fully suspended on bogie frame	Partial suspended on bogie frame	None of the above	Fully suspended on bogie frame
249	Capacity of a battery in three phase loco is _____ AH.	199	200	75	120	199
250	Over current relay in three phase locos is _____.	78	86	88	89.1	78
251	Power converter is isolated by switch No. _____	160	154	152	150	154
252	Sub-system `06' corresponds to _____	Auxiliary converter No. 1	Auxiliary converter No. 2	Auxiliary converter No. 3	Battery	Auxiliary converter No. 1
253	Power factor in three phase locos is _____	1	0.8	0.9	0.75	1

254	Input and output of potential transformer is _____ and _____ respectively.	25 /100	25 /200	25 /300	25 /400	25 /200
255	Oil used in gear case of WAG9 locos Auxiliary machine _____.	Shello 150	servo press 150	servo gem RR3	150 S	servo gem RR3
256	"NSC2: 0082 PS fault storage GBC" with Zinfo:1312 hex indicates defect in _____ valve set.	12/2	13/3	14/4	15/5	12 /2
257	Two locomotives of ELS/KZJ are provided with TCN/VCU. The acronym TCN stands for _____.	Train Communication Net	Train Common Network	Train Communication Network	Trainier Communication Network	Train Communication Network
258	In M/s BHEL make IGBT locomotives, TM1 firing is controlled by _____.	DCU1	DCU2	DCU3	DCU4	DCU2
259	25A8 module is controlled by _____M/s BHEL make IGBT SR.	DCU1	DCU2	DCU3	DCU4	DCU3
260	Pre charging contactor in SR is used for _____.	Reducing inrush current	Reducing over current	Reducing inrush voltage	Reducing over voltage	Reducing inrush current
261	When MCB 63.1/2 is tripped, It will consequently lead to_____.	Bogie working due to low converter oil temperature	Bogie working due to high converter oil temperature	Bogie isolation due to high inverter oil temperature	None of the above	Bogie isolation due to high converter oil temperature

262	411 location indicates_____.	VCU2 rack	VCU1 rack	VCD rack	None of the above	VCU1 rack
263	Limits of OHE voltage during working of WAG9 locomotive is _____kV to _____kV.	15.5 kV and 30 kV	17.5 kV and 25 kV	17.5 kV and 30 kV	17.5 kV and 35kV	17.5 kV and 30 kV
264	If temperature of SR exceeds_____degrees then TE/BE is reduced to '0' and exceeds_____degrees VCB will be off.	50, 80	64, 85	60, 80	64, 80	64, 80
265	The letters V-O-F on cab buzzer indicates_____.	Over speed and Fire	Vigilance and Fire	Vigilance, Over speed and Fire	Vigilance, Over speed	Vigilance, Over speed and Fire
266	Self hold mode means_____.	CE will remain active for 1 min.	CE will remain active for 10 mins.	CE be off.	CE will remain active for 12 mins.	CE will remain active for 10 mins.
267	The fault message F0101p1 results in_____.	Harmonic power off	Main power off	Aux power off	None of the above	Main power off
268	S/R interlock activates after attaining a speed of _____kmph.	8 KMPH	10 KMPH	20 KMPH	5 KMPH	10 KMPH
269	In _____mode, working of VCD can be tested on standstill position in 3Ø locomotives.	LT	Simulation	HT	None of the above	Simulation

270	ZBV stands for_____.	train bus	MU train bus	dead loco train bus	None of the above	MU train bus
271	The brake rigging arrangement of WAG9 locomotives is similar to _____locomotive.	WAP-4	WAG7	WAP-5	WAP-7	WAG7
272	The grease used for lubrication of bearings of FRA 6068 is_____.	RR 120	SHC 120	SHE 120	HC 120	SHC 120
273	In 3Ø loco, to isolate panto No. 2 keep panto selector switch in position and close..... coc	Auto , PAN-1 & 2	II , PAN-1	I , PAN-2	I or II , PAN-1 or 2	I , PAN-2
274	In 3Ø dead loco, coc should be open for charging BP pressure into auxiliary reservoir.	70	47	74	136	47
275	While 3Ø loco working as banker, put on switch and close 70 cut out cock.	ZTEL	ZBAN	BLHO	None of the above	ZBAN
276	In 3Ø loco, SS-17 belongs to sub system	Processor FLG-1	Memotel	Processor FLG-2	Fire detection	Processor FLG-1
277	To perform shunting with 3Ø loco, keep switch in position.	154 in 0	154 in 1	160 in 0	160 in 1	160 in 0

278	While working with WAG-9 with light load, if Harmonic filter is isolated, work with normal speed after isolating	Auxiliary converter-1	Traction converter-1 & 2	Traction converter-1	Auxiliary converter-2	Traction converter-1
279	In 3Ø loco, Battery charger is getting supply from	Auxiliary converter-1	Auxiliary converter-3	Auxiliary converter-2	Traction converter-1	Auxiliary converter-3
280	While energizing 3Ø loco, if UBA meter is showing "0" and corridor lights also not glowing check, MCBs No.	100;110	110;112	100;112.1	112; 112.1	112; 112.1
281	In 3Ø loco, for charging of BP pressure coc to be kept open.	A-8	47	70	74	70
282	In 3Ø loco, if battery voltage drops below volts, loco will shut down.	90	92	87	82	82
283	In 3Ø loco, Battery charger output MCB No. is and its location is at.....	110 ; SB1	100 ; HB2	110 ; SB2	100 ; HB1	110 ; SB2
284	In 3Ø loco, VCD is required to be acknowledged from kmph of speed.	1.5	5	15	1	1.5
285	During loco brake testing of WAG-9 loco should not to move up to KN.	100	300	150	200	150

286	In 3Ø loco, continuous pressing of PSA for more than 60 seconds is called asmode.	VCD isolation	VCD acknowledgement	Dead man	None of the above	Dead man
287	In 3Ø loco, Constant speed control (CSC) will be de-activated automatically if BP pressure drops (with or without A9) more than Kg/cm2 .	0.25	1	1.5	0.6	0.25
288	In 3Ø loco, Auxiliary converter No.2 feedsmotors	Traction motor blower-1 & 2	SR Oil pump-1 & 2	Transformer oil pump-1 & 2	All of the above	All of the above
289	In 3Ø loco, SS-10 belongs to sub system	Battery	Auxiliary converter No. 3	Brake system	Auxiliaries HB1	Brake system
290	While clearing 3Ø loco (provided with Knorr brake) as dead, mode switch position in both cabs is	Trail	Lead	Test	HLPR	Trail
291	In 3 Ø loco potential transformer is connected toroof bar.	Panto-1	Middle	Panto-2	None of the above	Middle
292	In 3Ø loco, if 'Catenary voltage out of limit' appears on screen, change fuse after lowering panto and try.	Potential Transformer	FL	CCBA	UBA	Potential Transformer

293	While working 3Ø loco as banker, close coacs in pneumatic panel	74&136	70& 136	70&74	all of the above	70& 136
294	In 3Ø loco, to reset the Fire detection unit (FDU) press thebutton.	Press Reset button on FDU	ESPB	BPVR	BPFA	Press Reset button on FDU
295	In gradient area and terminal goods yards Constant speed control (CSC) of 3Ø loco should not be used.	Undulating	UP	DOWN	Steep Down	Undulating
296	In 3Ø loco, if speed is more than % than loco MPS, only audio visual indications will appear.	5	0	0.5	1	5
297	Over current relay in 3Ø loco is	OCR-86	MVR-86	QLM	OCR-78	OCR-78
298	In 3Ø loco, battery charger input MCB No. is and located in	100 , HB-1/BUR2	112 , SB-1/SR1	100 , HB-2/BUR2	112.1 ,SB-2/SR2	100 , HB-2/BUR2
299	3Ø loco is having number of auxiliary Converter (s).	3	1	2	4	3
300	If speed of the train is increased more than than loco MPS, emergency brake will apply in 3Ø loco.	10%	50%	5%	1%	0.1

301	Parking brake is provided towheels in WAG-9 loco	2, 6, 7 & 11	1, 4, 5 & 8	1, 6, 7 & 12	2 & 11	2, 6, 7 & 11
302	3Ø loco having number of additional cocs (total coc on both sides).	4 + 4	4	16	2	4 + 4
303	In 3Ø loco, SS-05 belongs to sub system.	Hotel load	Harmonic filter	Brake system	Fire detection	Hotel load
304	WAG-9 loco is provided with No. of direct brake cylinders and No. of parking brake cylinders	12&4	12&12	4&12	12&6	12&4
305	In 3Ø loco, position of control Electronics (CE) during cab changing is	Self hold mode	off	on	none of the above	Self hold mode
306	In 3Ø loco, location of BPFL switch is	In both cabs Panel C	FLCU	In both cabs Panel A	In both cabs Panel B	In both cabs Panel C
307	To move 3 Ø loco as live or dead ensure& brakes are released.	Parking , Direct brakes	Direct brakes, proportional	Parking brakes, proportional	none of the above	Parking , Direct brakes
308	In 3Ø loco, if throttle (ATDC) is failed, keep switch in position.	152 , 1	154,0	160,1	152,0	152 , 1

309	In 3Ø loco, when parking brakes are applied, parking brake gauge shows	0 Kg/cm2	4 Kg/cm2	3.5 Kg/cm2	6 Kg/cm2	0 Kg/cm2
310	In 3Ø loco, SS-15 belongs tosub system.	Fire detection	Cab-2	Memotel (Speedometer)	Processor FLG-1	Fire detection
311	In 3Ø loco, to isolate panto No.1 keep panto selector switch in Position.	Auto	I	II	I & II	II
312	Location of Emergency stop push button switch in 3Ø loco is	In both cabs Panel A	In both cabs Panel B	In both cabs Panel C	In both cabs Panel D	In both cabs Panel A
313	WAG-9 locos are having number of dampers (in both primary and secondary suspension).	20	16	40	10	20
314	Location of MCP-2 in 3Ø loco is	Loco right side below Machine room No.2	Loco left side below Machine room no.1	Machine room No.1	Machine room No.2	Loco right side below Machine room No.2
315	In 3Ø loco, glowing of BPFA and flickering of LSFI indicatesfault.	Priority-1	Isolation of sub system	Priority-2	Both Priority-1 & 2 faults at a time	Priority-1
316	In 3Ø locos, VCD is required to acknowledge once in every seconds.	160 in WAG-9 or WAP-7 & 120 in WAP-5	8	68	60	60

317	In 3Ø loco, on run glowing of BPFA alone indicates fault.	Priority-2	Priority-1	One of the sub system is isolated	Priority-1 fault or Priority-2 fault	Priority-2
318	Location of Harmonic filter resistances in 3Ø loco is	Loco roof	Inside FB	Machine room No-2	By the side of pneumatic panel	Loco roof
319	In 3Ø loco, to bring isolated sub system into service (system isolated sub system), procedure is	Switch OFF and switch ON	Reset concerned MCB	Close concerned COC	Operate concerned rotating switch	Switch OFF and switch ON
320	In 3Ø loco, Status code '00' means-----	Major fault in loco	No sub system isolated	Minor fault in loco	No fault and No sub system isolated	No fault and No sub system isolated
321	In 3Ø loco, Auxiliary converter No.3 feeds Motors.	TMB 1&2	MCP-1 & 2	OCB 1&2	TFP PUMP 1&2	MCP-1 & 2
322	In 3Ø loco, In case of emergency, ALP can stop the train by operating	Emergency stop switch	Emergency brake valve	BPVG	Emergency stop switch or Emergency brake valve	Emergency stop switch or Emergency brake valve
323	In 3Ø loco, Constant speed control (CSC) will be de-activated automatically if throttle is disturbed above % in TE side or BE side.	0.33	0.66	0.03	No such limit, on moving Throttle	0.03
324	WAG-9 loco is havingtype of bogie.	Bo-Bo flexi coil	Co-Co Tri mount	Co-Co flexi coil	Co-Co tetra mount high adhesion	Co-Co flexi coil

325	3Ø loco having ... number of single phase 415V auxiliary motors.	12	4	8	13	4
326	In 3Ø loco, Machine room blowers & their scavenging blowers works in..... Mode(s).	Driving mode only	Cooling mode only	Driving mode & Cooling mode	Off	Driving mode & Cooling mode
327	In WAG-9, location of air dryer is	Behind MCP-1 in left side	Between two trucks	Behind cattle guard-1 loco pilot side	Behind cattle guard-1 in ALP side	Behind cattle guard-1 loco pilot side
328	In 3Ø loco, location of MCP-1 is	In machine room No.1	In machine room No.2	Below machine room No.2	Below machine room No.1	Below machine room No.1
329	In 3Ø loco, 3Ø scavenging blower collects dust from air filters of &	Oil cooling blowers-1&2	Bogie blowers-1&2	Machine room blowers- 1,2	Oil cooling blower & Bogie blower	Oil cooling blower & Bogie blower
330	In 3Ø loco, to operate reverser ensure node information on screen and MR pressure should be more than 6.4 kg/cm2.	FLG-504	FLG-590	FLG-550	FLG-570	FLG-570
331	In 3Ø loco, when harmonic filter is isolated, speed of the train is restricted to	60 Kmph.	40 Kmph.	25 Kmph.	no such restrictions	40 Kmph.

332	In 3Ø loco, location of Fire detection unit (FDU) is	SB-1	SB-2	HB-2	panel	SB-2
333	In proportional working, maximum brake cylinder pressure in WAG-9 loco iskg/cm2	1.8 kg/cm2	2.5 kg/cm2	3.5 kg/cm2	5 kg/cm2	2.5 kg /cm2
334	3Ø loco is having No. of 3 phase auxiliary motors in loco under frame.	2	4	12	8	4
335	If RS pressure is below 5.2 Kg/cm2 and MCPs are not working, MCPA starts automatically provided BL key is in position.	"C"	"D"	"C" or " D"	None of the above	"C" or " D"
336	In 3Ø loco before operating throttle, ensure node information on screen.	FLG-504	FLG-550	FLG-570	FLG-590	FLG-590
337	In 3Ø loco, SS-03 belongs tosub system.	Traction bogie-1	Traction bogie-2	Main power	Harmonic filter	Traction bogie-2
338	In 3Ø loco, Oil cooling blower cools ...&.....Oils/ water coolant.	SR-1 , SR-2	TFP-1 , TFP-2	TFP & SR	Traction motors	TFP & SR
339	In 3Ø loco, to isolate truck No.1 (traction converter-1), keep switch in position.	154 , I position	154 , II position	154 , auto position	154 , I & IIposition	154 , I position

340	In 3Ø loco, if battery voltage drops to volts for 30 seconds, P-2 message appears.	92 Volts	82 Volts	90 Volts	85 Volts	92 Volts
341	In 3Ø loco, for application of parking brakes speed should be below.....	5 Kmph	15 Kmph	1.5 Kmph	ZERO Kmph	5 Kmph
342	Full form of RTIS	Real Train Information System	Real-time Train Information System	Real Train Information Scheme	Remote Train Information System	Real-time Train Information System
343	Full form of CVVRS	Camera Video Voice Recording System	Crew Voice & Video Recording System	Crew Voice & Video Recording System	Cabin Video Verification and Recording Scheme	Crew voice and video Recording System
344	Brake cylinder pressure on application of penalty brake through KAVACH in 3 phase loco is	1.8 Kg/cm2	2.5 Kg/cm2	2.8 Kg/cm2	3.5 Kg/cm2	2.5 Kg/cm2
345	Type of Brakes Applied by Loco TCAS are	Normal brakes	Full Service brakes	Emergency Mode	all the above	all the above
346	Full form of BIU in KAVACH	Brake interface unit	Brake intermediate unit	Brake interconnection unit	None of the above	Brake interface unit
347	Expand the RDAS _____.	Railway Driver Assistance System	Railway Driving Assurance System	Railway Drowsiness Avoidance system	Railway Dynamic adjustment system	Railway Driver Assistance System

348	Expand the EoTT _____.	Extension of Train Telemetry	Extension of Train Telemetry	Extension of Traction Telemetry	End of Train Telemetry	End of Train Telemetry
349	How many cameras are typically installed in each AC locomotive for CVVRS?	4	8	6	10	6
350	kVA Rating of TFP used for HLC.	7775	7475	6735	None of the above	7775
351	Output voltage of HLC	750V AC 3 Phase	750V DC 3 Phase	415V AC 3 Phase	415V DC 3 Phase	750V AC 3 Phase
352	Expand HOTEL regarding HLC	Head On generation Tail End Load	Head On generation trail End Load	Head On generation Tail Extention Load	None of the above	Head On generation Tail End Load
353	Waterless urinal is accessible at ____ loco speed	0 kMPH	5 kMPH	100 kMPH	130 kMPH	0 kMPH
354	Expand DPWCS	Distributed power wireless communication system	Divided power wireless communication system	Distributed power wireless control system	Distributed protocol wireless communication system	Distributed power wireless communication system
355	DPWCS can be connected to maximum ____ locos	2	3	4	5	5
382	In Medha propulsion SR how many modules are available	2	5	9	8	9

383	Name the different types of input/ output cards available in Propulsion equipments	Digital, Analog	only digital	only Analog	Processor cards	Digital, Analog
384	In which propulsion system DC link over voltage protection uses EM contactor	MEDHA	SIEMENS	BHEL	ATIL	SIEMENS
386	No of vehicle control processor cards used in BHEL, MEDHA, ATIL, Siemens propulsions respectively_____	5, 4, 2,2	5,3,4,4	3,2,1,1	3,3,2,2	5, 4, 2,2
387	Choose the correct answer regarding GTO and IGBT propulsion Locos	GTO loco is Bogie control and IGBT loco is Axle control	IGBT have faster switching time compared to GTO.	GTO locos generates more harmonics than IGBT locos.	All of the above	All of the above
388	Locomotive CAB AC has how many no of Motors and its working voltage.	2, 230V 1ph AC	3, 415V 1Ph AC	3, 415V 3ph AC	None of the above	3, 415V 3ph AC
389	In IGBT Aux convertor Rectifier Module uses which power equipment	Diodes	IGBT	Thyristor	MOSFET	Thyristor
390	In BHEL propulsion SR DC link Over voltage protection IGBT available in which no. Module	A4	A6	A8	A5	A5
391	Train Bus in three phase loco is used for_____	To communicate with Traction Convertor	To communicate with Aux Convertor	To communicate with other loco through wired connection	None of the above	To communicate with other loco through wired connection

392	Different BUR ventilation frequencies used in IGBT propulsion locos	30,44,50	37,47,50	37,42,50	37,40,50	37,47,50
393	As per RDSO/MS/505 (Rev.1) The VCD Acknowledgment push button provided at what location in three phase locos	Beside the PVEF	In A Panel	Beside the Angle Transmitter	In D-Panel	Beside the Angle Transmitter
394	What is the maximum DC link voltage in Auxiliary converter _____	500 volts	700 volts	800 volts	None of the above	800 volts
395	As per the ABB protective document, what is the AC primary voltage range in three phase locos _____	17.5 kV to 30 kV	15 kV to 25 kV	17.5 kV to 25 kV	19 kV to 30 kV	17.5 kV to 30 kV
396	At what converter oil temperature VCB will trip in three phase locos	Equal and above 80 °C	Equal and above 100 °C	Equal and above 75 °C	Equal and above 90 °C	Equal and above 80 °C
397	What is the capacity of the three phase loco CAB AC unit _____	0.5 ton at 35 °C Ambient	1 ton at 35 °C Ambient	2 ton at 35 °C Ambient	1.5 ton at 35 °C Ambient	2 ton at 35 °C Ambient
398	What is the blower motor capacity in CAB AC unit of three phase loco _____	0.25 KW	0.5 KW	1 KW	0.75 KW	0.25 KW
399	In three phase loco if any BUR gets isolated, will CAB AC work or not?	Yes, it will work	No, it will not work	It is irrelevant to BUR isolation	None of the above	No, it will not work

400	In CAB AC unit, motor contactors works at what voltage _____	110 Volt AC	110 Volt DC	450 volts	24 volt DC	110 Volt AC
401	In KAVACH(TCAS) version.4, how many additional pressure sensors provided in locomotive _____	3	2	4	1	4
402	In KAVACH(TCAS), which equipment reads the RFID tags fitted on the track	RFID reader	Remote Interface Unit	DMI unit	GPS antenna	RFID reader
403	In KAVACH(TCAS) equipment, how many sims cards are used for GPS/GSM and where it is located	2 No's in control unit	1No in DMI	2 No's in GPS antenna	2 No's in BIU unit	2 No's in control unit
404	The basic purpose of RMS unit in three phase loco is used for _____	For identifying the location of the loco	For identifying the location speed of the loco	For remotely monitoring the fault data of three phase loco	None of the above	For remotely monitoring the fault data of three phase loco
405	What is the abbreviation of RTIS equipment available in three phase locos_____	Real Time Train Information System	Real Time Identification System	Real Time Information System	None of the above	Real Time Train Information System
406	What is the full form of DPE in RTIS unit _____	Display Processing Engine	Display Processor Element	Display Protective Equipment	None of the above.	Display Processing Engine
407	Which makes of RTIS units available in IR three phase locomotives _____	Medha, BEL	BEL, L&T	ATIL, L&T	Medha, ATIL	BEL, L&T

408	What is the full form of CVVRS	Crew Voice and Video Recording System	CAB Voice and Video Recording System	Camera Voice and Video Recording System	None of the above	Crew Voice and Video Recording System
409	In CVVRS, which equipments stores the audio and video data and what type of cable is used	NVR, CAT 6 cable	PVR, CAT 6 cable	NVR, CAT 4 cable	MVR, CAT 6 cable	NVR, CAT 6 cable
410	What is the memory card size used in CVVRS unit and camera capacity in three phase locomotives	2 TB, 2 MP	1TB, 2MP	2TB, 3MP	None of the above	2 TB, 2 MP
411	The purpose of the hotel load converter in three phase locomotives	To supply the auxiliaries of locos	To supply the traction motors	To supply power to coach lights and AC loads	None of the above	To supply power to coach lights and AC loads
412	What is the output voltage of HLC converter _____	3Ø 415V	3Ø 750V	3Ø 2150V	3Ø 1000V	3Ø 750V
414	In three phase loco HB panel 63A, 40A MCBs are used in which Aux. Motors respectively?	TMB,CP	OCB,MRB	MRB,SCMRB	MRB,CP	TMB,CP
415	SRMPH motor MCB rating used in GTO and IGBT three phase locomotives respectively	32A, 10A	32A, 63A	20A, 10A	None of the above	32A, 10A
416	ZBAN switch is used for _____	Cooling mode	Inching mode	Banking mode	None of the above	Banking mode

419	Which BL switch is used to energize the HLC converter	BLDJ	BLHO	BLCP	None of the above	BLHO
420	What is the setting of RGCP in kg/cm2?	8.5/ 10.5	. 7.5/ 8.5	8.0/ 10.0	9.0/ 10.0	8.0/ 10.0
421	What is the setting of the Low MR pressure switch in kg/cm2?	8.5/ 10.5	5.6/ 6.4	8.0/ 10.0	5.0/ 6.0	5.6/ 6.4
422	Current is collected from OHE to A.C.loco through?	Transformer	circuit breaker	Pantograph	servo motor	Pantograph
423	Maximum air pressure in 3ph electric loco brake cylinder with A9 application is	2.5 kg/cm2	3.5 kg/cm2	2.0 kg/cm2	5.0 kg/cm2	2.5 kg/cm2
424	AFL circuit works in case of	train parting	chain pulling	brake application	both (1) & (2)	both (1) & (2)
425	Conventional Panto raising time is adjusted between	6 to 10 sec.	5 to 10 sec.	5 to 8 sec.	None	6 to 10 sec.
426	What is the brake cylinder pressure applied through SA9 in 3ph electric locos	2.5 kg/cm2	3.5 kg/cm2	5 kg/cm2	1.8 kg/cm2	3.5 kg/cm2
427	What is the condemn limit for conventional panto carbon strip?	3.5 mm	4.5 mm	5 mm	2.5 mm	3.5 mm

428	What is the codal life of a pantograph?	18 years	10 years	15 years	12 years	12 years
429	What is the span of bow assembly of a conventional pantograph?	1800 mm	1850 mm	2030 mm	1620 mm	1800 mm
430	What is the span of bow assembly of a High reach pantograph?	1800 mm	1850 mm	2030 mm	1620 mm	2030 mm
431	What is the transverse flexibility limit for a pantograph?	50 mm with 40 kg wt.	40 mm with 30 kg wt	30 mm with 30 kg wt	25 mm with 50 kg wt	30 mm with 30 kg wt
432	What is the full form of ADD in HRPT?	Auto drop device	Air development device	Auto drag device	Air demand device	Auto drop device
433	What is the full form of ORD in HRPT?	Over Reach Detector	Over Reach Device	Over Roof Device	On Roof Device	Over Reach Device
434	What is the pressure switch setting of Panto pressure switch?	8.5/ 10.5	5.6/ 6.4	4.5/ 5.5	5.0/ 6.0	4.5/ 5.5
435	What is the pressure switch setting of the Brake cylinder pressure switch?	0.3/ 0.6	5.6/ 6.4	. 4.5/ 5.5	5.0/ 6.0	0.3/ 0.6
436	Which panel in the cab of 3ph locos houses the pneumatic gauges?	A Panel	B Panel	C Panel	D Panel	B Panel

437	What is the direction of operation of ALP Emergency COC handle?	East to West	Clockwise	Anti clockwise	North to south	Anti clockwise
438	What is the full form of PTDC?	Pneumatic Travel Distance Controller	Part Time Development Controller	Pneumatic Time Dependant Controller	Partial Time Discharge Controller	Pneumatic Time Dependant Controller
439	Which COC should be opened in Dead Mode of Operation?	74	70	136	47	47
440	Which valve is responsible for brake application during PTDC mode?	. C3W valve	KE Valve	16-CP	20-CP	KE Valve
441	What is the BAT/BRT of SA9 in 3ph Locos?	8/10-15 sec	8/ 12 sec	6/ 9 sec	15/ 20 sec	8/10-15 sec
443	What is the BAT of A9 in WAG-9 Locos?	6-9 sec	18-24 sec	. 10-15 sec sec	45-60 sec	18-24 sec
444	What is the BRT of A9 in WAG-9 Locos?	6-9 sec	18-24 sec	. 10-15 sec sec	45-60 sec	45-60 sec
446	What is the volume of MR reservoir in 3 phase loco?	410 Ltrs	470 Ltrs	480 Ltrs	450 Ltrs	450 Ltrs
447	What is the volume of an AR reservoir in 3 phase loco?	210 Ltrs	270 Ltrs	240 Ltrs	250 Ltrs	240 Ltrs

448	Which brakes are applied if OHE is lost during Regenerative braking?	Blending brakes	Rheostatic brake	A9 brake	SA9 brake	Blending brakes
449	Which switch is used for isolation of VCD?	127.85	127.17	127.7	237.1	237.1
450	Which switch is to trip the Pneumatic panel?	127.85	127.17	127.7	237.1	127.7
451	Which fault message comes if LED 6 is not glowing on the Control Card of brake electronic cards?	Traction not allowed on this Loco or slave Loco	Traction not allowed with applied brakes	Traction not allowed with auto brakes	Fault in Brake Electronics	Fault in Brake Electronics
452	What is the fault if LED1 of Control Card brake electronic cards is glowing?	SA9-1 defective	SA9-2 defective	A9-1 defective	A9-2 defective	A9-1 defective
453	Which EP-115 is energised in Self Hold mode?	31	32	both 31 & 32	None of 31 & 32	both 31 & 32
454	What is the function of Brakeaway Protection Valve?	to cutoff MR pipe in case of MU parting	to cutoff DB pipe in case of MU parting	to cut off BP pipe in case of MU parting	to cut off FP pipe in case of MU parting	to cutoff DB pipe in case of MU parting
455	What can be the reason for AFI shooting?	Leakage in BP circuit	Leakage in FP circuit	leakage in DB circuit	both (a) & (c)	both (a) & (c)
456	What is the standard for the CP efficiency test?	BP should be between 4.0-4.5 kg/cm2	BP should be between 4.5-4.0 kg/cm2	BP should not fall below 4.0 kg/cm2	BP should not fall below 4.5 kg/cm2	BP should not fall below 4.0 kg/cm2

457	Which Valve releases the A9 BC pressure during Regenerative braking?	Dynamic brake cut out valve	PVEF	UL-MV	Isolate EP Valve	Dynamic brake cut out valve
458	Which of these faults is a P2 fault?	S/R Interlock Brake COC	S/R Interlock loco brake	Alarm Chain Pulling	S/R interlock Auto brake	Alarm Chain Pulling
459	Which electronic cards are available in the Brake electronics rack?	HBB, STB, DIA, FLG	PSU, HBB, control, FLG	PSU , Control, LPO, Blender	LPO, Blender, HBB, FLG	PSU , Control, LPO, Blender
460	Where is the Air Dryer located in a pneumatic circuit of 3 ph loco?	Between CP & MR1	Between MR1 & MR2	After MR2	Between MR1 and AR	Between MR1 & MR2
461	Which COC charges AR in a dead loco?	74	70	47	136	47
462	Which coupler is concerned with the Vigilance device in 3 ph loco?	237.A	260.A	260.C	260.B	237.A
463	Which MCB is used to trip Air dryer supply?	. 237.1	127.7	48.1	128.1	128.1
464	What is the function of Isolate EP Valve (36)?	to isolate BP charging and destruction in dead loco	to isolate BP charging and destruction in MU loco	to isolate BP charging	to isolate BP destruction	to isolate BP charging and destruction in MU loco

465	Which EP valve is de-energised during VCD penalty to drop BP?	14	36	33	16	14
466	What is the minimum speed required for VCD to come into service?	1.5 kmph	2 kmph	10 kmph	40 kmph	1.5 kmph
467	What is the speed restriction in case of Harmonic filter isolation?	1.5 kmph	2 kmph	10 kmph	40 kmph	40 kmph
468	What is the speed restriction during PTDC mode of operation?	1.5 kmph	2 kmph	10 kmph	40 kmph	10 kmph
469	What is the role of ULVs in pneumatic circuit?	to remove the air between CP and NRV while CP starts	to remove the air between CP and MR1 while CP starts.	to assist the air dryer in purging.	to remove the air between CP and Air dryer while CP starts	to remove the air between CP and NRV while CP starts
470	When does the air dryer come in service?	When moisture is increased in air dryer over specific limit	While CPs are working	When CPs have stopped working	When moisture is accumulated in MRs.	While CPs are working
471	Which valve is responsible for A9 braking during normal mode of operation in CCB locos?	16-CP	20-CP	ER-CP	BP-CP	16-CP
472	Which valve is responsible for SA9 braking during normal mode of operation in CCB locos	16-CP	20-CP	ER-CP	BP-CP	20-CP

473	Which valve is responsible for BP charging cut-off in CCB locos when high flow of BP is observed?	16-CP	20-CP	ER-CP	BP-CP	BP-CP
474	Type of Bogies used in WAG-9	a. B-B Bogie	b. CO-CO Flexy coil Bogie	c. BO-BO Bogie	d. None of the above	Ans: d
475	No. of sand boxes in WAG-9	a. 6	b. 9	c. 8	d. 2	Ans: c
476	Hand brake will be provided on wheel No.	a. Wheel No 9	b. Wheel No 6	c. Wheel No 1	d. Wheel No 2	Ans: d
477	The type of lubricant used in WAG-9 Gear case	a. SERVO SYN RR460	b. Block compound	c. TAR	d. S.P.150 Oil	Ans: a
478	D.P.T used to detect	a. Saface crack	b. Blow hole	c. Internal Flaw	d. None of the above	Ans: a
479	No of axle boxes in WAG-9 loco	a. 6	b. 16	c. 12	d. 24	Ans: c
480	MPT test full form	a. Magnetic powder test	b. Magnetic liquid test	c. Magnetic particle test	d. Metal particle test	Ans: c

481	Range of B.C piston travel	a. 100-110mm	b. 107-117mm	c. 80-100mm	d. 90-107mm	Ans: b
482	Height of rail Guard	a. 103-118mm	b. 104-119mm	c. 105-118mm	d. 102-116mm	Ans: b
483	Wheel to wheel distance	a. 1596 to 1600mm	b. 1595.5-1599mm	c. 1594-1600mm	d. None of the above	Ans: b
484	No. of brake blocks required per loco in WAG-9C	a. 20	b. 19	c. 22	d. 24	Ans: d
485	Diameter of New wheel of WAG-9	a. 1096 mm	b. 1087 mm	c. 1077 mm	d. 1066 mm	Ans: a
486	Buffer height range	a. 1030- 1105 mm	b. 1036 - 1100mm	c. 1035-1200mm	d. 1040-1100mm	Ans: a
487	Full form of CBC	a. Cylindrical buffer coupling	b. Centre buffer coupling	c. Centre body coupling	d. Centre bogie coupling	Ans: b
488	Permissible wheel diameter difference between bogie to bogie	a. 5-10mm	b. 15-30mm	c. 20-25mm	d. 15-25mm	Ans: d
489	Condemned size of wheel dia in WAG-9	a. 1105mm	b. 1016mm	c. 1030mm	d. 1000m	Ans: b

490	Gear ratio of WAG-9 Loco is	a. 21:107	b. 16:65	c. 17:55	d. 18:96	Ans: a
491	Back lash is the measure of gap between	a. Bull gear and pinion teeth	b. Bogie and Axle box	c. S.T and T.M	d. None of the above	Ans: a
492	No. of teeth measured for "k" value of WAG-9 Bull gear.	a. 9	b. 15	c. 26	d. Both a&b	Ans: d
493	In WAG-9 centre pivot is used to	a. Transfer vertical load	b. Transfer lateral load	c. Transfer tractive load	d. None of the above	Ans: c
494	Slack adjuster is used to adjust	a. Adjust buffer height	b. Brake power adjustment	c. Brake cylinder piston lengths	d. Adjust rail guard	Ans: c
495	Diameter of wheel is measured by	a. Profile gauge	b. screw gauge	c. wheel gauge	d. tong tester	Ans: c
496	Measuring Instrument to measure R.W,F.W&T.W is	a. Profilometer	b. "D" gauge	c. Profile Gauge	d. Wire gauge	Ans: c
497	SAFETY CHAINES are connected between	a. Wheel to Wheel	b. Body to Body	c. Bogie to Bogie	d. Body to Bogie	Ans: d
498	No of pull rods present in WAG-9 loco	a. 16	b. 08	c. 32	d. 12	Ans: b

499	No of primary vertical shock absorbers per bogie in WAG-9	a. 4	b. 8	c. 6	d. 10	Ans: b
500	Type of Bogie OF WAG-9	a. Casting	b. Fabricated Bogie	c. Cast Iron	d. None of the above	Ans: b
501	Axle box grease used in WAG-9	a. RR460	b. SHELL NERITA	c. RR5	d. RR600	Ans: b
502	Types of Bearings in WAG-9 axle box	a. Conical	b. CRU	c. Taper roller	d. Needle roller	Ans: b
503	Type of bearing used in WAG-9 suspension tube	a. Roller	b. Conical	c. CYLINDRICAL roller	d. Needle bearing	Ans: c
504	Gap between brake block and wheel interface on released condition of WAG-9	a. 20mm	b. 15mm	c. 10mm	d. 5mm	Ans: c
505	Gap between sander nozzle to wheel face WAG-9	a. 48	b. 32	c. 30	d. 40	Ans: d
506	Sand nozzle height above rail WAG-9	a. 120	b. 100	c. 80	d. 60	Ans: d
507	No of outer helical springs per bogie WAG-9	a. 02	b. 06	c. 08	d. 10	Ans: c

508	No of inner helical springs per bogie WAG-9	a. 10	b. 08	c. 16	d. 02	Ans: b
509	Draft gear is present in	a. Centre pivot	b. CBC	c. Compressor	d. SIV	Ans: b
510	SWL full form	a. shot work load	b. Slow work load	c. safe working load	d. None of the above	Ans: c
511	No of color codes given for tested helical springs of WAG-9	a. 2	b. 5	c. 4	d. 7	Ans: c
512	1 Inch is equal to	a. 24.5mm	b. 25.4mm	c. 23.5mm	d. 26.5mm	Ans: b
513	Type of TM provision in bogie WAG-9	a. Axle Hung Nose suspended	b. Axle having bogie fixed	c. Torque arm	d. None of the above	Ans: a
514	Conical rubber pads are provided for WAG-9	a. End axle box	b. middle Axle box	c. all axle boxes	d. None of the above	Ans: a
515	The type bushes used in Eq beam +compensating beam	a. Iron bush	b. Plastic Bush	c. Polyamide self lubricating bush	d. Nylon bush	Ans: c
516	No of side bearers provided for WAG-9 loco	a. 08 Per loco	b. 6 Per loco	c. 5 Per loco	d. 4 Per loco	Ans: a

517	Racers and throwers are provided on	a. Centre pivot	b. Side bearers	c. On the journal	d. on the bogie	Ans: c
518	No of brake cylinder provided per bogie in WAG-9 Loco.	a. 08	b. 04	c. 06	d. 07	Ans: b
519	Strongest weld joint is obtained by	a. Gas welding	b. MIG welding	c. Arc welding	d. None of the above	Ans: b
520	MIG welding stands for	a. Material inert gas welding	b. metal inert gas welding	c. Molten inert gas welding	d. None	Ans: b
521	No of parking brakes in WAG-9	a. 02	b. 03	c. 04	d. 05	Ans: c
522	TBU Stands for	a. Thread brake unit	b. Tread brake Unit	c. Top brake unit	d. None of the above	Ans: b
523	PBU stands for	a. poor brake unit	b. Parking brake unit	c. Parallel brake unit	d. None of the above	Ans: b
524	In WAG-9 loco TM is connected to Bogie by	a. Rocker arm	b. Torque arm	c. Axle guide	d. Centre pivot	Ans: b
525	In WAG-9HC 'C' stands for	a. Compressor	b. Conventional brake rigging	c. CBC	d. None of the above	Ans: b

526	Type of axle box bearing used in WAG-9	a. CRU (Cylindrical roller unit) – 150 Type	b. wiring type	c. Tapper roller	d. D)None of the above	Ans: a
527	In WAG-9 grease used on non gear end of suspension tube	a. SHC-120	b. RR3	c. Shell gadus	d. None of the above	Ans: a
528	Axle box grease used in WAG-9	a. SHC-120	b. RR3	c. Shell gadus/Shell narita	d. RR460	Ans: c
529	Parking brake units are available on wheel No.	a. 1,5,7&12	b. 2,6,7&11	c. 3,6,8&9	d. All the wheels	Ans: b
530	Lubrication oil used in WAG-9 gear case.	a. RR360	b. RR260	c. RR560	d. RR460	Ans: d
531	Types of dampers available in WAG-9	a. 2	b. 5	c. 8	d. 4	Ans: d
532	Type of gears used in WAG-9 TM, Pinion & bull gear	a. Helical gear	b. Spur gear	c. Bevel gear	d. Rack and pinion	Ans: a
533	Gear ratio of WAG-9H , TM and bull gear	a. 200:107	b. 21:107	c. 23:108	d. 24:125	Ans: b
534	No of 'D' shackle in WAG-9	a. 5	b. 3	c. 4	d. 7	Ans: c

535	No of sand boxes in WAG-9 per bogie	a. 5	b. 3	c. 4	d. 7	Ans: c
536	No of traction link housing per loco	a. 2	b. 4	c. 5	d. 1	Ans: b
537	No of spheri blocks required for Torque arm.	a. 4	b. 3	c. 2	d. 5	Ans: c
538	The specified torque for tightening axle guide and torque arm bolts	a. 540NM	b. 640NM	c. 440NM	d. 740NM	Ans: b
539	The specified torque for tightening traction link bolts	a. 110NM	b. 150NM	c. 120NM	d. 116NM	Ans: a
540	No of sphere-blocks used for one axle guide	a. 2	b. 1	c. 3	d. 4	Ans: a
541	Type of nuts used to tightened axle guide bolts torque arm bolts	a. Nylock nut	b. F-S steel locknut	c. M.S nut	d. None of the above	Ans: b
542	The specified torque for tightening retaining plate	a. 80NM	b. 60NM	c. 90NM	d. 50NM	Ans: a
543	How many number of brake blocks are provided on a wheel of WAG-9	a. 2	b. 6	c. 4	d. 5	Ans: c

544	How many brake keys required for WAG-9 loco per wheel	a. 3	b. 4	c. 2	d. 1	Ans: c
545	The reason for converting TBU/PBU brake system in WAG-9 to conventional brake rigging	a. Simple design to maintain	b. Low cost components	c. Less weight when compared to TBU & PBU	d. All of the above	Ans: d
546	Rail Guard height	a. 119mm to 104mm	b. 106mm to 118mm	c. 110mm to 125mm	d. 108mm to 120mm	Ans: a
547	Buffer Height	a. 1105mm to 1030mm	b. 1108mm to 1020mm	c. 1100mm to 1010mm	d. 1104mm to 1040mm	Ans: a
548	Knuckle Hole Dia	a. 40.0mm to 48.0mm	b. 41.0mm to 49.0mm	c. 42.0mm to 50.0mm	d. 39.0mm to 47.0mm	Ans: a
549	Clavis hole Dia	a. 37.0mm to 45.0mm	b. 38.0mm to 46.0mm	c. 39.0mm to 47.0mm	d. 40.0mm to 48.0mm	Ans: a
550	Yoke Pin hole Dia	a. 95.02mm to 99.9mm	b. 96.02mm to 98.9mm	c. 97.02mm to 99.9mm	d. 98.02mm to 99.9mm	Ans: a
551	Knuckle nose wear limit gauge.	a. 9.5mm	b. 8.4mm	c. 9.6mm	d. 9.4mm	Ans: a

SAFETY

Sl.no	Question Description	Option 1	Option 2	Option 3	Option 4	Answer
1	Which of the following is Human Safety item.	VCD	Helmet	First Aid	RTIS	Helmet
2	Which of the following is Human Safety item?	Helmet	Mask	Shoes	all of the above	all of the above
3	While Opening Oven door which of the following safety item essential.	Helmet	Apron	Boiler Suit	Arm Guard	Boiler Suit
4	While doing welding which of the following equipments to be kept away.	Water	Petrol	Sand	None of these	Petrol
5	While removing grease from axle box which of the following safety item to be wear.	Gloves	Helmet	Shoes	Leg Guard	Gloves
6	While operating crane & moving any equipment above the staff _____ to be operated by crane driver.	Head light	Mirror light	Horn	None of these	Horn
7	While standing near a rotating machine staff to wear _____	Apron	Helmet	Boiler Suit	Mask	Apron

8	During Loco cleaning with Pneumatic air (Blowing) _____is essential	Helmet	Apron	Mask	Boiler Suit	Mask
9	During Rainy Season Staff working under pit has to wear _____	Apron	Mask	Rubber Shoe up to knee	None of these	Rubber Shoe up to knee
10	Which of the following is LOCO Safety item?	Corridor Light	Corridor Door	Foot Plate	Look out Glass	Look out Glass
11	Which of the following is LOCO Safety item?	Corridor Light	Corridor Door	VCD	Foot Plate	VCD
12	Which of the following is LOCO Safety item?	SPM	Foot Plate	Corridor Door	None of these	SPM
13	Which of the following is LOCO Safety item?	VCD	Buffers	Both a & b	None of these	Both a & b
14	Which of the following is LOCO Safety item?	Corridor Light	Air Dryer	Foot Plate	None of these	Air Dryer
15	Which of the following is LOCO Safety item?	VCD	SPM	Both a & b	None of these	Both a & b
16	Which of the following is LOCO Safety item?	Buffers	Rail guard	Wooden Wedges	all of the above	all of the above

17	Which of the following is LOCO Safety item?	Buffers	Cattle guard	Both a & b	Foot Plate	Both a & b
18	Which of the following is LOCO Safety item?	Wooden Wedges	Negative bond	Both a & b	None of these	Both a & b
19	Which of the following is LOCO Safety item?	Negative bond	Spare Fuses	Both a & b	None of these	Both a & b
20	Which is one of the component for Fire occurrence ?	Wood	Heat	Petrol	All the above	All the above
21	Which one is Class A type of fire component?	Wood	Paper	Petrol	Both a& b	Both a& b
22	Which one is Class B type of fire component?	Wood	Textile	Oil solvent	Both a& b	Oil solvent
23	PASS method is used to operate	Fire Alarm	IMMS	HRMS	Fire Extinguisher	Fire Extinguisher
24	In PASS method for using Extinguisher what does A stand for?	Aim base of fire	Aim below the fire	Aim on Top of fire	All the above	Aim base of fire
25	Human body can save from shock in which condition ?	Wearing helmet	Wearing goggles	Wearing Mask	Wearing insulated Gloves	Wearing insulated Gloves

26	Which Fire extinguisher used for Class A type fire ?	Dry powder	Water	CO2	All the above	All the above
27	During fire in loco _____ is Required.	Fire Extinguisher	Assembly of all the staff at one point.	Main MCB Location	wooden wedge	Fire Extinguisher
28	All the Staff must have awareness on _____	Operation of Fire Extinguisher	knowledge on First aid	Location of Fire Extinguisher	all of the above	all of the above
29	While Walking on Floor of Shed _____ to be Check thoroughly.	Tiles	Any oil /grease	Sand	None of these	Any oil /grease
30	The code of practice for earthing is governed by	IS: 3043	IS: 4340	IS: 4340	IS: 4430	IS: 3043
31	Cross sectional area (Sq mm) for Earth discharge rod used for OHE isolation	30	40	50	60	40
32	Earth discharge rod for loco to be provided	Both ends	one end	middle	None of these	Both ends
33	Maximum distance between two earthing discharge rods (in meters)	500	1000	1500	1200	1000
34	The details of the foundations are available in	SED	LOP	pegging plan	CSD	CSD

35	Which of the following is a TRD installation	Crew Control Centre	Bogie section	Sectioning Post	EMU Car Shed	Sectioning Post
36	Maximum and minimum voltage to be maintained on 25 KV side at TSS are --	27.0 KV, 23.0 KV	29.5 KV,19.0 KV	27.5 KV, 17.0 KV	no limit is prescribed	27.5 KV, 17.0 KV
37	Which is the relay used to sense the earth faults on a feeder?	WPC	OCR	80 LV	MHO	OCR
38	DGA test is related to --	MOCB	Transformer	SF-6 BM	LA	Transformer
39	The length of the conventional type of Neutral section is --	6.5 m	34 m	41 m	depends upon gradient	41 m
40	What is the minimum working clearance required in TRD?	320 mm	270 mm	2000 mm	200 mm	2000 mm
41	Which of the following is not a objective of earthing --	to stabilize circuit potential	to protect men and material	to provide high impedance path to fault current	to keep the maximum voltage gradient within safe limit	to stabilize circuit potential
42	During current collection test, we can not check --	Stagger of contact wire	Smoothness of current collection	Stagger of catenary wire	none of the above	Stagger of catenary wire
43	Adjustable Dropper is used for	ATD	RRA	Section Insulator	ACA	Section Insulator

44	Oliver –G is used for	Thickness of OHE	Sag in OHE	Height and Stagger of OHE	Non of the above.	Non of the above.
45	Abbrevation for ACTM	AC Train Manual	AC Traction Manual	AC Traffic Manual	AC Training Manual	AC Traction Manual
46	Abbrevation for CRIS	Central Research Institute of Safety	Centre For Railway Information System	Central Research Institute of Savings	Centre for Railway Instruments & Standard	Centre For Railway Information System
47	Abbrevation for RDSO	Research Design & Standard Organization	Revenue for Direct Supply Order	Railway, Design & Standard Organization	Research, Design & Specification Organization	Research Design & Standard Organization
48	Abbrevation for SCADA	Supervisor Control & Data Acquisition	Supervisor Computer & Data Acquisition	Supervisor Control & Discipline Act	Super Computer & Data Acquisition	Supervisor Control & Data Acquisition
49	In loco provided with KAVACH,_____ Mode allows the Loco Pilot to pass the signal at danger.	a. SR mode.	b. FS mode.	c. Override mode.	d. Post Trip mode.	Override mode.
50	As per kavach spec, it shall be possible to automatically calculate train length ----- -----	a. by the onboard KAVACH on receiving the required information from stationary KAVACH. This feature is applicable only in station section.	b. by the stationary KAVACH alone on receiving the required information from onboard KAVACH.	c. Cannot be possible.	d. Continuously calculate by onboard Kavach.	Ans –(b)

51	Kavach system shall supervise the movement authority based on the ----- for Automatic signals.	a. signal aspect, point indication status and the status of berthing track circuit/axle counter	b. signal aspect and the point indication status	c. signal aspect and the status of berthing track circuit/axle counter	d. All the options are correct.	Ans –(c)
52	In case of supervision of End of Authority or Speed Restriction of zero KMPH ahead (dead stop), Brakes shall be released only when -----.	a. System goes to Trip mode.	b. None of the given options are correct.	c. loco/train speed becomes zero kmph or when the loco/train speed is less than the estimated permitted	d. Brakes shall not be released till post trip mode is selected.	Ans –(c)
53	In the RFID Tag data format, (As per RDSO spec Ver 4.0), If the Type of Tag - 0001, it denotes	a. Normal Tag	b. Adjustment tag	c. LC Gate Tag	d. Signal foot Tag	Ans –(d)
54	In the RFID Tag data format (As per RDSO spec Ver 4.0), Type of Tag - 0111 denotes -----	a. LC Gate Tag	b. Normal Tag	c. Adjustment tag	d. Signal foot Tag	Ans –(c)
55	In the RFID Tag data format, the Unique ID of RFID Tag Set value range from -----	a. 1-1028	b. 1-999	c. 4 Bits	d. 1-1023	Ans –(d)
56	Expand the following term used in Kavach: "TSRMS":-----	a. Temporary Speed Regulation Management system	b. Temporary Speed Restriction Management system	c. Train serial Resistance Management system	d. Train Shunt Resistance Management system	Ans –(b)
57	Expand the following term used in KAVACH: "KMS" -----	a. Key maintenance system	b. Kill management system	c. Kill Mode of System	d. Key Management system	Ans –(d)

58	The Purpose of GPS in KAVACH system is ----- --	a. None	b. For Time synchronization	c. To transmit Movement authority data	d. To transmit SOS	Ans –(b)
59	Expand the following term used in Kavach “MA” — :--- -----	a. Major Accident	b. Multiple Aspect	c. Movement Authority	d. Machine Acceptance	Ans –(c)
60	As per kavach specification, the DC-DC converters provided for stationary Kavach unit shall have segregation of cabling and termination. And these DC-DC converters shall be in --- ----- configuration	a. N+1	b. N+2	c. Duplicated	d. None of these	Ans –(a)
61	As per kavach spec, it shall be possible to Display signal aspect on ----- -	a. Loco Kavach	b. Station Kavach	c. LPOCIP (DMI)	d. SMOCIP	Ans –(c)
62	As per RDSO specification RIU of Kavach unit should consist of minimum ____ inputs	a. 64	b. 24	c. 28	d. 32	Ans –(d)
63	Cable used for connectivity between radio modems and RF Antennais.....	a. LMR cable	b. OFC cable	c. Quad cable	a. LMR cable	Ans –(a)
64	Communication between the Stationary Kavach and Loco Kavach shall be Over-The- Air using Multiple Access & Complete each	a. 3000	b. 4000	c. 5000	d. 2000	Ans –(d)

	Multiple Access frame cycle shall be of milli seconds.					
65	Communication packets exchanged between Station Kavach and Loco Kavach shall be of a maximum size of bits.	a. 4096	b. 512	c. None of these	d. 1000	Ans –(c)
66	Data logger card is used in which make of kavach?	a. HBL	b. medha	c. Kernex	d. None of these	Ans –(c)
67	23. Default De- Registration Timeout for communication between S-KAVACH and Onboard KAVACH in absolute and complete automatic block sections are..... Seconds respectively.	a. 120,30	b. 30,120	c. 60,30	d. 30,60	Ans –(a)
68	Default Communication time out in Absolute and Automatic block Section are second respectively	a. 120, 30	b. 30,10	c. 10,30	d. 30,120	Ans –(b)
69	Direction Indicating 'N' on DMI means.....	a. Absolute direction is decreasing in the direction of movement	b. None of these.	c. Absolute direction is constant in the direction of movement	d. Absolute direction is increasing in the direction of movement	Ans –(d)
70	Distance between main and duplicate tags except for Turn out tag.	a. None	b. Exactly 5m	c. 3 to 5 meters	d. Exactly 3 m apart	Ans –(c)

71	In Kavach System, the Distance between two normal tags in case of block section is not more than	a. None	b. 1KM	c. 3.5KM	d. 5KM	Ans –(b)
72	Easy to design but limits train traffic throughput	a. Spot-based ATP	b. Radio based ATP	c. Any of the these	d. None of these	Ans –(a)
73	EVL card is used for which interface?	a. None of the above	b. NMS	c. Inputs	d. RIU	Ans –(b)
74	Expand the following term used in Kavach: "SOS"----- ---	a. None of these	b. System out of service	c. Signal out of service	d. Save our soul	Ans –(d)
75	Expand the following term used in Kavach:"PSR":----- -----	a. Permanent Speed Regulation	b. Permanent Signal Register	c. Permanent Shunt Resistance	d. Permanent Speed Restriction	Ans –(d)
76	Expand the following term used in Kavach:"TSR":----- -----	a. Train Signal Register	b. Temporary Speed Regulation	c. Temporary Speed Restriction	d. Train Shunt Resistance	Ans –(c)
77	Expand the following terms used in Kavach "SPAD":----- -----	a. Signal Passing At Danger	b. Signal Put back At Danger	c. Systematic Packet Access Device	d. Service Packet Acceptance Device	Ans –(a)
78	Expand the following terms used in Kavach:"EB":----- -----	a. Emergency Brake	b. Equivalent Brake pressure	c. Emergency Buzzer	d. None of these	Ans –(a)
79	Expand the following terms used in Kavach:"FSB":----- -----	a. Full Service Brake	b. First Service Buzzer	c. First Signal Bit	d. Full Service Mode	Ans –(a)

80	Expand the following terms used in Kavach:"SB" Mode	a. Systematic Braking	b. Stand By	c. Supervisory Buzzer	d. Service Brake	Ans –(b)
81	FIM card input ports are ___in Kernex	a. 48 inputs	b. 24 inputs	c. 32 inputs	d. None of these	Ans –(b)
82	Fixing Arrangement along the length of the PSC Sleeper does not exceed--	a. 350mm	b. 380mm.	c. 450mm	d. 280mm	Ans –(b)
83	For NMS connectivity, IB huts which are under communication zone of the station are	a. Not required to connect	b. Not Connected	c. Directly connected to NMS	d. connected to the Station Kavach	Ans –(d)
84	FSC card is available in which make of Kavach?	a. Kernex	b. Gigitronics	c. HBL	d. Medha	Ans –(c)
85	Height of the tower in kavach system is ----	a. 40 mtrs	b. 15 mitrs	c. 25 mtrs	d. 30mitrs	Ans –(a)
86	ICL card is available in which make of Kavach?	a. None of the above	b. HBL	c. kernex	d. Medha	Ans –(c)
87	If Calling ON signal taken off by SM, then Loco will transit to which mode.	a. Staff Responsible Mode	b. Onsight Mode	c. Override mode	d. None	Ans –(b)
88	If Train speed exceeds by 5 Kmph - 8 Kmph from the maximum permitted speed	a. Emergency brake till speed gets	b. Any of these	c. Normal service brake along with warning	d..No brake	Ans –(c)

	limit , the on board kavach shall execute -----	controlled to below the limit				
89	If Train speed exceeds by 8 - 10 KMPH to the maximum permitted speed limit , the on board kavach shall execute ---	a. Full Service brake along with warning	b. No brake	c. Emergency brake till speed gets controlled to below the limit	d. Any of these	Ans –(a)
90	In Kavach System, In absolute block section how many TINs available in block section for one line?	a.2	b.3	c. 1	d. None of the above	Ans –(c)
91	In case of SPAD condition, the Kavach system automatically goes to Trip Mode and Emergency brakes will be applied, then further brakes will be released only when----- -----	a. Loco pilot selects Post trip mode .	b. Loco pilot selects OVRD.	c. SR mode selected by LP	d. On sight mode selected by LP	Ans –(a)
92	In case of the change in Train formation -----	a. Through KMS change in Train configuration communicated	b. Through NMS change in Train configuration communicated	c. Automatically Loco kavach shall detect all the time	d. Locopilot shall change the configuration details and subsequently On board kavach shall conduct self tests	Ans –(d)
93	In EI stations , to connect inputs to station kavach, interface used is	a. All inputs through Repeater relay	b. Using EI protocol converter	c. None of the above	d. All of the above	Ans –(b)

94	In Kavach equipped installation, the Side collision in block section can be prevented by following arrangement:	a. There shall be provision of automatically generating SOS from a Onboard Kavach if it stops for a specific amount of time (Default: 15s / 10 s) in both absolute block and automatic section.	b. Side collision cannot be prevented directly or indirectly.	c. Automatic brake application takes place.	d. None of these.	Ans –(a)
95	In Kavach system, "TIN" means	a. Track Information number	b. Train identification number	c. Track Identification number	d. Track Integrity number	Ans –(c)
96	In medha make power supply required for aviation lamps?	a. 110VDC	b. 24V DC	c. 110VAC	d. 48V DC	Ans –(b)
97	In STOP signal failure condition which mode is required for Loco Kavach to pass signal at On ?	a. Trip	b. Reverse	c. Onsight	d. PTRIP	Ans –(c)
98	In the Kavach installation, Radio communication unit shall have -----	a. Hot standby	b. Warm standby	c. Cold standby	d. Any of these	Ans –(a)
99	In the RFID layout ----- to be mentioned.	a. Absolute locations of tags	b. All the options are correct	c. Absolute location of LC gates	d. Absolute location of Fouling Marks	Ans –(b)
100	KAVACH is required to be functional up to a maximum train speed of --	a. 130kmph	b. 200 kmph	c. 100kmph	d. 250 kmph	Ans –(b)

101	Kavach system shall supervise the movement authority based on the ----- for manually controlled signals. choose the most appropriate answer.	a. signal aspect and the point indication status	b. signal aspect, point indication status and the status of berthing track circuit/axle counter	c. signal aspect and the status of berthing track circuit/axle counter	d. All the options are correct.	Ans –(b)
102	Latest Kavach Specification is	a. RDSO/SPN/196/2012 version 3.2.	b. RDSO/SPN/196/2019 version 3.2	c. RDSO/SPN/192/2019 version 4.0	d. RDSO/SPN/196/2020 version 4.0	Ans –(d)
103	Limited Supervision mode - -----	a. Can be selected by Loco Pilot at the starting point	b. Cannot be selected by Loco Pilot manually	c. Can be selected by Loco Pilot while in on-sight mode	d. None of these.	Ans –(b)
104	Loco Kavach communication with NMS is connected through interface?	a. E1	b. GSM	c. Radio	d. Ethernet	Ans –(b)
105	62. Loco Kavach shall use transmit frequency (f0) in block section and at the times of emergency situations like	a. Rear end collision	b. head-on collisions	c. SoS	d. All	Ans –(d)
106	MIE stands for -----	a. Microcontroller Identity Enquipment	b. Microcontroller Intelligent Equipment	c. Mono Identity Equipmment	d. Micro information Equipment	Ans –(b)
107	OFC and power cable in ---- path shall be provided from Stationary Kavach unit to the location box at tower to avoid common mode failures.	a. diverse	b. Unified	c. Simplified	d. All the options are correct	Ans –(a)

108	Onboard as well as Stationary Kavach shall have provision of sending SOS message by pressing --	a. SOS and Acknowledgement Button.	b. SOS and Common buttons together.	c. SOS button only.	d. Any of these.	Ans –(b)
109	One frame cycle is divided into basic position markers(Time slots) in Ver.4.0	a. P72	b. P68	c. P70	d. P78	Ans –(c)
110	Power supply available for kavach system in Dieser loco	a. 72VDC	b. 48V DC	c. 110V DC	d. 24V DC	Ans –(a)
111	Purpose of GPS in KAVACH system	a. To transmit Movement authority	b. To transmit SOS	c. Time synchronization of all modules	d. All the above	Ans –(c)
112	Radio modems working voltages is	a. 110 VAC	b. 110VDC	c. 24VDC	d. 60VAC	Ans –(c)
113	In Kavach System, RFID TAG is type of device	a. Passive	b. None	c. a&b	d. Active	Ans –(a)
114	RFID Tag numbers values shall be in the range of	a. 1-99	b. 0-1024	c. None of the above	d. 1-1023	Ans –(d)
115	RIU can be available at _ places	a. Automatic section	b. LC gate	c. IB	d. All of the options	Ans –(d)

116	RIU is always connected to	a. Station Kavach	b. Radio Modem	c. Loco Kavach	d. None of the above	Ans –(a)
117	Route information of all the signals in KAVACH System is configured on the basis of -----	a.SWR	b.SSP	c.KAVACH Control Table	d.Route control chart (RCC)	Ans –(c)
118	Shunt signals shall not be the part of Kavach TOC, whereas station shunt limits shall be specified in the	a. Station Kavach Application data	b. SSP packets	c. Loco Kavach Application data	d. All the options correct	Ans –(a)
119	Signal Approach tag placed at a distance of mtrs from signal	a. 150-250mtrs	b. 50- 100mtrs	c. 200-300mtrs	d. 100-200mtrs	Ans –(a)
120	SMOCIP facilitates the following requirements/operations:-	a. Displaying of system related faults on the LCD and displaying status of TCAS health such as status of Battery voltage through LED indications.	b. Reception of SOS messages from locomotives in the vicinity and acknowledgement.	c. Generation and Cancellation of SOS (Save Our Soul) messages during emergency situations.	d. all the option are correct	Ans –(d)
121	SoS will not generate if train stops in block section, If MA is less than this default Distance limit.	a. 3000	b. 3	c. 30	d. 300	Ans –(d)
122	SR mode is used when the system -----	a. After Trip mode	b. Becomes faulty	c. Does not know the route	d. None of these	Ans –(c)

123	Station Kavach can be connecting minimum of RIU in one direction	a .5	b. None	c. 6	d. 8	Ans –(c)
124	Station Kavach communication with NMS is connected through interface?	a. Radio	b. E1	c. None of these	d. parallel	Ans –(b)
125	Station Kavach connected through interface for connecting to NMS?	a. Radio	b. E1	c. GSM	d. GPRS	Ans –(b)
126	Station Kavach should be connecting RIUs from minimum. direction.	a. both	b. 5	c. 6	d. None	Ans –(c)
127	Station Kavach to NMS connectivity, which card will be used in Station Kavach of Medha make?	a. VCC	b. CIF	c. EVL	d. VIP	Ans –(c)
128	.Station/LC/IBS Vital Computer shall work with input voltage of -----	a. 24V or 110 V DC (+30%, -20%)	b. 110V DC only	c. 230VAC only	d. None of these	Ans –(a)
129	The feature requires for the data exchange between the Stationary KAVACH and the Onboard	KAVACH of different OEM	a. solidarity	b. All the options are correct	c. integrity	d. Interoperability
130	The current speed of the Train is displayed on -----	a. LPOCIP	b. Station Kavach	c. SMOCIP	d. Loco Kavach	Ans –(a)

131	The distance between two different types of RF tags set shall not be less than	a. 40m	b. 100m	c. 50m	d. 10m	Ans –(d)
132	The frequency used between RFID tag and RFID reader is	a. 845-855Mhz	b. 865-867Mhz	c. 875-885Mhz	d. None of these	Ans –(b)
133	The maximum distance correction to be incorporated in the Normal tag shall be restricted to	a. 50	b. 20	c. 30	d. 60	Ans –(b)
134	The Movement authority from station is displayed on -----	a. Station Kavach	b. LPOCIP	c. Loco Kavach	d. SMOCIP	Ans –(b)
135	The On sight mode enables the train to enter into a track section that could be already occupied by another train or Complete obstructed by any kind of obstacle. The On sight mode appears after	a. on sight mode Can be selected by Loco Pilot after Post Trip mode	b. Can be selected by Loco Pilot after Over ride mode.	c. Cannot be selected by Loco pilot but shall be entered automatically after selecting OVRD and CNFM button and the permission of Stationary Kavach.	d. None of these.	Ans –(c)
136	The onboard Kavach shall determine the location of the train with the help of --- ----- Complete		a. GSM communication	b. Radio communication	c. RFID tag data and directional type speed sensor output.	d. GPS communication
137	.The onboard Kavach shall have RFID readers in ----- ---	a. warm standby	b. Hot standby	c. Cold standby	d. None of these	Ans –(b)

138	The onboard Kavach shall make speed profile/brake curve for different situations based on movement authority, Complete speed restriction and other information as received from -----	a. Track side sub-system.	b. RFID Reader	c. BIU	d. None of these.	Ans –(a)
139	The permanent EoA { End of Authority) Locations such as Stop boards, BSLBs, End of berthing track shall have Complete ___ tags	a. Border tag	b. signal approach tag	c. signal foot tag	d. Turn out tag	Ans –(c)
140	The RFID tags shall be fixed	a. Right end of the sleeper.	b. At the centre of the PSC Sleeper.	c. Left end of the sleeper.	d. At every alternative sleeper.	Ans –(b)
141	TIN Discrimination tags shall be used to indicate change in the TIN of Track section. Normally it will be placed at	a. At foot of signal	b. Turnout	c. At berthing track	d . None of these	Ans –(b)
142	TIN numbers values shall be in the range of	a. 1-100	b. 1-256	c. 1-128	d. 1-255	Ans –(d)
143	To minimize the failure of Movement Authority/out of correspondence of signal aspect at site and LP OCIP, due to high contact resistance of relays, the of relay contacts to be done.	a. Series wiring	b. Parallel wiring	c. No wiring	d. none of these	Ans –(b)

144	Upto how many km can RIU may be placed from the station. Select the most appropriate answer.	a 5	b. It will depend on the radio coverage available or not	c. 2	d. 8	Ans –(b)
145	Voter card is used in which make of Kavach?	a. GG Tronics	b. HBL	c. Medha	d. Kerex	Ans –(b)
146	What is the gain of station Radio antenna?	a. 4dBi	b. 3 cBi	c. 5 dBi	d. 6 dBi	Ans –(c)
147	What type of modulation technique is used in Radio Modem of Kavach working System	a. Phase Modulation	b. Phase shift keying	c. 2- FSK (Frequency shift keying)	d. Amplitude Modulation	Ans –(c)
148	When reverse mode is not selected, reverse movement shall be detected and MA should increase and brakes should be applied after a distance of..... meter (default)	a. 50	b. 10	c. 5	d. 2	Ans –(c)
149	Which cable is used for radio interface in Radio modem?	a. LMR 200	b. LMR 600	c. LMR 400	d. None of the above	Ans –(a)
150	Which encryption used in KMS for security?	a.AES 128	b. AES 512	c.AES 256	d. None of the above	Ans –(a)
151	Which mode is required to operated after SPAD condition for Loco Kavach?	a. Shunt	b. OVRD	c. Post -TRIP	d. SR	Ans –(c)

152	Which signals shall not be part of KAVACH control tables?	a. Home	b. Calling on	c. Starter	d. Shunt	Ans –(d)
153	While fixing RFID Tags, the topmost portion of the RFID Tag	a. should not be more than 750 mm above top surface of PSC Sleeper at centre.	b. should not be more than 380 mm above top surface of PSC Sleeper at centre.	c. should not be more than 75 mm above top surface of PSC Sleeper at centre.	d. None of these.	Ans –(c)

D. Official Language Questions with Answers

राजभाषा संबंधी प्रश्न-उत्तर

1	राजभाषा से संबंधित संवैधानिक प्रावधान भारत के संविधान के किस भाग में है ?	
	(A) भाग-15	(B) भाग-16
	(C) भाग-17	(D) भाग-18
1	Constitutional provision related to Official Language is in which part of the Constitution of India?	
	(A) Part -15	(B) part-16
	(C) Part-17	(D) part -18
	Ans: C	
2	संघ की राजभाषा के बारे में संविधान के किस अध्याय में उल्लेख है?	
	(A) अध्याय - 1	(B) अध्याय - 2
	(C) अध्याय - 3	(D) अध्याय - 4
2	Which chapter of the Constitution mentions about the Official Language of the Union?	

	(A) Chapter - 1	(B) Chapter -2
	(C) Chapter -3	(D) Chapter -4
	Ans: A	
3	संसद में उ०योग की जानेवाली भाषा के बारे में भारत के संविधान के किस अनुच्छेद में उल्लेख है?	
	(A) अनुच्छेद -12	(B) अनुच्छेद -120
	(C) अनुच्छेद -112	(D) अनुच्छेद - 210
3	In which article of the Constitution of India mentions about the language to be used in the Parliament?	
	(A) Article - 12	(B) Article -120
	(C) Article -112	(D) Article-210
	Ans: B	
4	विधान मंडल में प्रयोग की जानेवाली भाषा के संबंध में भारत के संविधान के किस अनुच्छेद में उल्लेख है ?	
	(A) अनुच्छेद -120	(B) अनुच्छेद -210
	(C) अनुच्छेद -343	(D) अनुच्छेद - 345
4	Which article of the Constitution of India mentions about the language to be used in the Legislature?	
	(A) Article - 120	(B) Article -210
	(C) Article -343	(D) Article - 345
	Ans: B	
5	संघ की राजभाषा के बारे में भारत के संविधान के किस अनुच्छेद में उल्लेख है?	
	(A) अनुच्छेद -112	(B) अनुच्छेद -120
	(C) अनुच्छेद -340	(D) अनुच्छेद – 343
5	Which article of the Constitution of India mentions about the Official Language of the Union?	
	(A) Article - 112	(B) Article -120
	(C) Article -340	(D) Article - 343

	Ans: D	
6	राजभाषा के संबंध में आयोग और संसद की समिति के बारे में भारत के संविधान के किस अनुच्छेद में उल्लेख है?	
	(A) अनुच्छेद -210	(B) अनुच्छेद -343
	(C) अनुच्छेद -344	(D) अनुच्छेद - 351
6	Which article of the Constitution of India mentions about the Commission and Committee of Parliament in connection with the Official Language?	
	(A) Article - 210	(B) Article -343
	(C) Article -344	(D) Article - 351
	Ans: C	
7	राज्य की राजभाषा या राजभाषाओं के बारे में भारत के संविधान के किस अनुच्छेद में उल्लेख है?	
	(A) अनुच्छेद - 343	(B) अनुच्छेद -344
	(C) अनुच्छेद -345	(D) अनुच्छेद - 346
7	Which article of the Constitution of India mentions about the Official Language or Official Languages of the state?	
	(A) Article - 343	(B) Article -344
	(C) Article -345	(D) Article - 346
	Ans: C	
8	एक राज्य और दूसरे राज्य के बीच या किसी राज्य और संघ के बीच ात्रादि की भाषा के बारे में भारत के संविधान के किस अनुच्छेद में उल्लेख है?	
	(A) अनुच्छेद - 346	(B) अनुच्छेद -347
	(C) अनुच्छेद -348	(D) अनुच्छेद - 349
8	Which article of the Constitution of India mentions about the language of communication between one state and another or between a state and the Union?	
	(A) Article - 346	(B) Article -347
	(C) Article -348	(D) Article - 349
	Ans: A	

9	उच्चतम न्यायालय और उच्च न्यायालयों में और अधिनियमों, विधेयकों आदि के लिए प्रयोग की जानेवाली भाषा के बारे में भारत के संविधान के किस अनुच्छेद में उल्लेख है?	
	(A) अनुच्छेद - 347	(B) अनुच्छेद -348
	(C) अनुच्छेद -349	(D) अनुच्छेद - 350
9	Which article of the Constitution of India mentions about the language used in the Supreme Court and High Courts and for the Acts, Bills etc. ?	
	(A) Article- 347	(B) Article -348
	(C) Article-349	(D) Article - 350
	Ans: B	
10	व्यथा के निवारण के लिए अभ्यावेदन में प्रयोग की जानेवाली भाषा के बारे में भारत के संविधान के किस अनुच्छेद में उल्लेख है?	
	(A) अनुच्छेद - 344	(B) अनुच्छेद -346
	(C) अनुच्छेद -348	(D) अनुच्छेद - 350
10	Which article of the Constitution of India mentions about the language used in the representation for the prevention of grief?	
	(A) Article- 344	(B) Article -346
	(C) Article-348	(D) Article - 350
	Ans: D	
11	हिंदी भाषा के विकास के लिए निदेश का उल्लेख भारत के संविधान के किस अनुच्छेद में है?	
	(A) अनुच्छेद - 343	(B) अनुच्छेद -344
	(C) अनुच्छेद -351	(D) इनमें से कोई नहीं
11	Which article of the Constitution of India mentions the Directive for the development of Hindi language?	
	(A) Article- 343	(B) Article -344
	(C) Article-351	(D) None of the above
	Ans: C	

12	भारत के संविधान के अनुसार संघ की राजभाषा हिंदी तथा लिपि _____ होगी?	
	(A) रोमन	(B) खरोष्ठी
	(C) देवनागरी	(D) ब्राम्ही
12	According to the Constitution of India, the Official Language of the Union will be Hindi and the script will be _____ ?	
	(A) Roman	(B) Kharosthi
	(C) Devnagri	(D) Brahmi
	Ans: C	
13	संसदीय राजभाषा समिति की कौन सी उप समिति रेल कार्यालयों का निरीक्षण करती है?	
	(A) दूसरी उप समिति	(B) तीसरी उप समिति
	(C) पहली उप समिति	(D) इनमें से कोई नहीं
13	Which sub-committee of Parliamentary Committee on Official Language inspects Railway offices?	
	(A) Second Sub Committee	(B) Third Sub Committee
	(C) First Sub Committee	(D) None of the above
	Ans: A	
14	राजभाषा अधिनियम की धारा 4 के अंतर्गत गठित संसदीय राजभाषा समिति में लोक सभा के कितने सदस्य होते हैं?	
	(A) 5	(B) 10
	(C) 15	(D) 20
14	How many members of Lok Sabha are there in the Parliamentary Committee on Official Language constituted under section 4 of the Official Language Act?	
	(A) 5	(B) 10
	(C) 15	(D) 20
	Ans: D	
15	संसदीय राजभाषा समिति में राज्य सभा के कितने सदस्य होते हैं?	
	(A) 5	(B) 10
	(C) 15	(D) 22

15	How many members of Rajya Sabha are there in the Parliamentary Committee on Official Language?	
	(A) 5	(B) 10
	(C) 15	(D) 22
	Ans: B	
16	संविधान की किस अनुसूची में राज्य के राजभाषाओं का उल्लेख है?	
	(A) सातवीं	(B) आठवीं
	(C) नौवीं	(D) दसवीं
16	Which Schedule of the Constitution mentions about the Official Languages of the state?	
	(A) Seventh	(B) Eighth
	(C) Ninth	(D) Tenth
	Ans: B	
17	भारत के संविधान के भाग-17 में राजभाषा के प्रयोजन के लिए कितने अनुच्छेद हैं?	
	(A) 9	(B) 10
	(C) 11	(D) 12
17	Part-17 of the Constitution of India contains how many articles for the purpose of Official language?	
	(A) 9	(B) 10
	(C) 11	(D) 12
	Ans: C	
18	राजभाषा अधिनियम किस वर्ष पारित किया गया?	
	(A) 1961	(B) 1962
	(C) 1963	(D) 1968
18	In which year was the Official Language Act passed?	
	(A) 1961	(B) 1962
	(C) 1963	(D) 1968
	Ans: C	
19	राजभाषा अधिनियम की किस धारा के अधीन कुछ दस्तावेजों को हिंदी और अंग्रेजी दोनों भाषाओं में अनिवार्य रूप से तैयार, जारी किया जाना है?	
	(A) धारा 3(1)	(B) धारा 3(2)

	(C) धारा 3(3)	(D) धारा 4
19	Under which section of the Official Language Act, some documents are compulsorily prepared, issued in both Hindi and English languages?	
	(A) Section 3(1)	(B) Section 3(2)
	(C) Section 3(3)	(D) Section 4
	Ans: C	
20	राजभाषा अधिनियम के प्रयोजनों को कार्यान्वित करने के लिए नियम बनाने की शक्ति किसे प्रदान की गई?	
	(A) केंद्र सरकार को	(B) राज्य सरकार को
	(C) राज्यपाल को	(D) इनमें से कोई नहीं
20	Who is empowered to make rules to implement the Official Language Act?	
	(A) Central Government	(B) State Government
	(C) Governor	(D) None of the above
	Ans: A	
21	राजभाषा अधिनियम में पहली बार संशोधन किस वर्ष के दौरान किया गया था?	
	(A) 1964	(B) 1965
	(C) 1966	(D) 1967
21	During which year the first amendment to the Official Language Act was made?	
	(A) 1964	(B) 1965
	(C) 1966	(D) 1967
	Ans: D	
22	राजभाषा के संबंध में राष्ट्रपति के आदेश किस वर्ष 27 अप्रैल को जारी हुए थे?	
	(A) 1955	(B) 1960
	(C) 1962	(D) 1965
22	In which year the President's orders regarding the Official Language were issued on 27 April?	
	(A) 1955	(B) 1960
	(C) 1962	(D) 1965

	Ans: B	
23	राजभाषा संकल्प किस वर्ष के दौरान पारित किया गया था?	
	(A) 1960	(B) 1962
	(C) 1967	(D) 1968
23	During which year the Official Language Resolution was passed?	
	(A) 1960	(B) 1962
	(C) 1967	(D) 1968
	Ans: D	

24	राजभाषा नियम किस वर्ष पारित किया गया था?	
	(A) 1963	(B) 1967
	(C) 1976	(D) 1987
24	In which year the Official Language Rule was passed?	
	(A) 1963	(B) 1967
	(C) 1976	(D) 1987
	Ans: C	
25	राजभाषा नियम में पहला संशोधन कब किया गया था?	
	(A) 1976	(B) 1978
	(C) 1980	(D) 1987
25	When the Official Language Rules were amended first?	
	(A) 1976	(B) 1978
	(C) 1980	(D) 1987
	Ans: D	
26	राजभाषा नियम भारत के किस राज्य पर लागू नहीं होते हैं?	

	(A) जम्मू-कश्मीर	(B) तमिलनाडु
	(C) गोवा	(D) इनमें से कोई नहीं
26	Official Language Rules do not apply to which state of India?	
	(A) Jammu-Kashmir	(B) Tamil Nadu
	(C) Goa	(D) None of the above
	Ans: B	
27	राजभाषा कार्यान्वयन की दृष्टि से राजभाषा नियम 1976 के अंतर्गत भारत को कितने क्षेत्रों में वर्गीकृत किया गया है?	
	(A) 2	(B) 3
	(C) 4	(D) 5
27	With a view of implementation of Official Language, how many regions have been classified in India under Official Language Rules 1976?	
	(A) 2	(B) 3
	(C) 4	(D) 5
	Ans: B	
28	अंडमान निकोबार द्वीप समूह राजभाषा के प्रयोग-प्रसार के लिए वर्गीकृत किस क्षेत्र के अधीन आते हैं?	
	(A) 'क' क्षेत्र	(B) 'ख' क्षेत्र
	(C) 'ग' क्षेत्र	(D) इनमें से कोई नहीं
28	Andaman and Nicobar Islands come under which area classified for the propagation of the Official Language?	
	(A) 'A' region	(B) 'B' region
	(C) 'C' region	(D) None of the above
	Ans: A	
29	हिमाचल प्रदेश राज्य राजभाषा के प्रयोग-प्रसार के लिए वर्गीकृत किस क्षेत्र के अधीन आता है?	
	(A) 'क' क्षेत्र	(B) 'ख' क्षेत्र
	(C) 'ग' क्षेत्र	(D) इनमें से कोई नहीं

29	The state of Himachal Pradesh comes under which area classified for the use of the Official Language?	
	(A) 'A' region	(B) 'B' region
	(C) 'C' region	(D) None of the above
	Ans: A	
30	'हिंदी में कार्यसाधक ज्ञान' की परिभाषा राजभाषा नियम की किस नियम में दी गई है?	
	(A) 7	(B) 8
	(C) 9	(D) 10
30	The definition of 'Working Knowledge in Hindi' is given in which rule of the Official Language Rules?	
	(A) 7	(B) 8
	(C) 9	(D) 10
	Ans: D	
31	'हिंदी में प्रवीणता' की परिभाषा राजभाषा नियम की किस नियम संख्या में शामिल है?	
	(A) 9	(B) 10
	(C) 11	(D) 12
31	Definition of 'Proficiency in Hindi' is included in which rule of the Official Language Rules?	
	(A) 9	(B) 10
	(C) 11	(D) 12
	Ans: A	
32	केंद्र सरकार के जिन कार्यालयों के _____ प्रतिशत कर्मचारियों ने हिंदी का कार्यसाधक ज्ञान प्राप्त कर लिया है, उन कार्यालयों के नाम राजपत्र में अधिसूचित किए जाते हैं?	
	(A) 60%	(B) 70%
	(C) 80%	(D) 100%
32	The names of the Central Government offices of which _____ percent employees have acquired working knowledge of Hindi are notified in the Gazette. ?	
	(A) 60%	(B) 70%
	(C) 80%	(D) 100%

	Ans: C	
33	भारत सरकार के कार्यालयों में प्रत्येक वर्ष हिंदी दिवस कब मनाया जाता है?	
	(A) 12 सितंबर	(B) 14 सितंबर
	(C) 12 जनवरी	(D) 14 जनवरी
33	When is Hindi Day celebrated every year in the Central Government Offices?	
	(A) 12 September	(B) 14 September
	(C) 12 January	(D) 14 January
	Ans: B	

34	संविधान सभा ने हिंदी को राजभाषा के रूप में कब स्वीकार किया?	
	(A) 10 जनवरी 1975	(B) 10 सितंबर 1975
	(C) 14 सितंबर 1949	(D) 14 सितंबर 1963
34	When did the Constituent Assembly accept Hindi as the Official Language?	
	(A) 10 January 1975	(B) 10 September 1975
	(C) 14 September 1949	(D) 14 September 1963
	Ans: C	
35	भारतीय संविधान की 8वीं अनुसूची में निम्नलिखित में से कौन सी भाषा शामिल नहीं है?	
	(A) नेपाली	(B) उर्दू
	(C) अंग्रेजी	(D) सिंधी
35	Which of the following languages is not included in the 8th Schedule of the Constitution?	
	(A) Nepali	(B) Urdu
	(C) English	(D) Sindhi
	Ans: C	
36	संविधान की 8वीं अनुसूची में अब तक कितनी भाषाओं को मान्यता दी जा चुकी है?	

	(A) 15	(B) 18
	(C) 22	(D) 24
36	How many languages have been recognized in the 8th schedule of the constitution so far?	
	(A) 15	(B) 18
	(C) 22	(D) 24
	Ans: C	
37	राजभाषा नियम के अनुसार कोई भी कर्मचारी आवेदन, अपील या अभ्यावेदन किस भाषा में कर सकता है?	
	(A) हिंदी में	(B) अंग्रेजी में
	(C) हिंदी या अंग्रेजी में	(D) किसी भी भाषा में
37	According to the Official Language Rules, in which language can any employee can submit his application, appeal or representation?	
	(A) In Hindi	(B) In English
	(C) In Hindi-English	(D) In any language
	Ans: C	
38	प्रथम राजभाषा आयोग का गठन किस वर्ष के दौरान किया गया था?	
	(A) 1955	(B) 1960
	(C) 1963	(D) 1976
38	During which year was the first Official Language Commission formed?	
	(A) 1955	(B) 1960
	(C) 1963	(D) 1975
	Ans: A	
39	मैनुअल, संहिताएं, प्रक्रिया संबंधी अन्य साहित्य लेखन सामग्री आदि द्विभाषिक रूप में जारी किए जाने की अनिवार्यता के बारे में राजभाषा नियम के किस नियम संख्या में उल्लेख किया गया है?	
	(A) नियम 9	(B) नियम 10
	(C) नियम 11	(D) नियम 12

39	In which rule of the Official Language Rules have been mentioned about the imperative of issuing bilingual form manuals, codes, other literature related to process etc. ?	
	(A) Rule 9	(B) Rule 10
	(C) Rule 11	(D) Rule 12
	Ans: C	
40	राजभाषा नियम संख्या-12 के अनुसार राजभाषा अधिनियम और नियमों के संबंध में जारी निर्देशों के समुचित अनुपालन को सुनिश्चित करने का उत्तरदायित्व किसे सौंपा गया है?	
	(A) राजभाषा अधिकारी को	(B) कार्यालय के प्रशासनिक प्रधान को
	(C) संबंधित डीलर को	(D) उपर्युक्त तीनों को
40	According to Official Language Rule-12, who is entrusted with the responsibility of ensuring proper compliance of the instructions issued in connection with the Official Language Act and Rules?	
	(A) Rajbhasha Adhikari	(B) Administrative Head of the Office
	(C) Concerned Dealer	(D) Above three
	Ans: B	
41	1955 में गठित प्रथम राजभाषा आयोग के अध्यक्ष कौन थे?	
	(A) श्री गोविंद वल्लभ पंत	(B) श्री बी.जी. खेर
	(C) श्री जवाहर लाल नेहरू	(D) श्री ओम मेहता
41	Who was the Chairman of the First Official Language Commission constituted in 1955?	
	(A) Sri Govind Vallabh Pant	(B) Shri B.G.Kher
	(C) Sri Jawahar Lal Nehru	(D) Sri Om Mehtha
	Ans: B	
42	हिंदी के प्रयोग के लिए वर्ष 2019-20 के वार्षिक कार्यक्रम के अनुसार इस रेलवे के मंडलों से इस रेलवे के मुख्यालय को कितने प्रतिशत मूल ऋतु हिंदी में भेजा जाना अपेक्षित है?	
	(A) 55 प्रतिशत	(B) 60 प्रतिशत

	(C) 75 प्रतिशत	(D) 100 प्रतिशत
42	According to the Annual Programme of the year 2019-20 for the use of Hindi, what percentage of the originating correspondence is required to be done in Hindi from the divisions of this railway to the headquarters of this railway?	
	(A) 55 Percent	(B) 60 Percent
	(C) 75 Percent	(D) 100 Percent
	Ans: A	
43	केंद्र सरकार के कार्यालयों में गठित राजभाषा कार्यान्वयन समिति की बैठकों के आयोजन की अवधि क्या है ?	
	(A) 3 महीने में एक बार	(B) 6 महीने में एक बार
	(C) वर्ष में एक बार	(D) 2 वर्ष में एक बार
43	What is the period for holding the meetings of the Official Language Implementation Committee constituted in Central Government Offices?	
	(A) Once in 3 months	(B) Once in 6 months
	(C) Once in a year	(D) Once in 2 years
	Ans: A	
44	नगर राजभाषा कार्यान्वयन समिति की बैठकों के आयोजन की अवधि क्या है ?	
	(A) 3 महीने में एक बार	(B) 6 महीने में एक बार
	(C) वर्ष में एक बार	(D) 2 वर्ष में एक बार
44	What is the periodicity of holding the meetings of Town Official Language Implementation Committee?	
	(A) Once in 3 months	(B) Once in 6 months
	(C) Once in a year	(D) Once in 2 years
	Ans: B	
45	राजभाषा नियम 1976 में कुल कितने नियम हैं?	
	(A) 9	(B) 10
	(C) 12	(D) 14
45	How many rules are there in the Official Language Rules 1976?	

	(A) 9	(B) 10
	(C) 12	(D) 14
	Ans: C	
46	राजभाषा का वार्षिक कार्यक्रम किस मंत्रालय द्वारा जारी किया जाता है?	
	(A) मानव संसाधन मंत्रालय	(B) रेल मंत्रालय
	(C) सभी मंत्रालय	(D) गृह मंत्रालय
46	The Annual Program of Official Language is released by which ministry?	
	(A) Human Resource Ministry	(B) Ministry of Railways
	(C) All Ministries	(D) Ministry of Home Affairs
	Ans: D	
47	हिंदी शिक्षण योजना के अंतर्गत निर्धारित हिंदी पाठ्यक्रम की परीक्षाएं वर्ष में कितनी बार ली जाती हैं?	
	(A) 1 बार	(B) 2 बार
	(C) 3 बार	(D) 4 बार
47	How many times in a year the examinations of Hindi courses prescribed under Hindi Teaching Scheme are conducted?	
	(A) once	(B) twice
	(C) thrice	(D) 4 times
	Ans: B	
48	हिंदीतर भाषी क्षेत्रों में बोर्डों को किस क्रम में प्रदर्शित जाता है?	
	(A) हिंदी, अंग्रेजी, क्षेत्रीय भाषा	(B) अंग्रेजी, हिंदी, क्षेत्रीय भाषा
	(C) क्षेत्रीय भाषा, हिंदी, अंग्रेजी	(D) क्षेत्रीय भाषा, अंग्रेजी, हिंदी
48	In which order the boards are displayed in Non-Hindi speaking areas?	
	(A) Hindi, English, Regional Language	(B) English, Hindi, Regional Language
	(C) Regional Language, Hindi, English	(D) Regional Language, English, Hindi
	Ans: C	

49	मंडल रेल कार्यालय की राजभाषा कार्यान्वयन समिति के अध्यक्ष कौन होते हैं?	
	(A) अपर मुख्य राजभाषा अधिकारी	(B) मंडल रेल प्रबंधक
	(C) मुख्य राजभाषा अधिकारी	(D) महाप्रबंधक
49	Who is the Chairman of the Official Language Implementation Committee of the Divisional Railway Office?	
	(A) AMRA	(B) DRM
	(C) MRA	(D) GM
	Ans: B	
50	क्षेत्रीय रेल राजभाषा कार्यान्वयन समिति के अध्यक्ष कौन होते हैं?	
	(A) मुख्य राजभाषा अधिकारी	(B) प्रमुख मुख्य कार्मिक अधिकारी
	(C) महाप्रबंधक	(D) अध्यक्ष, रेलवे बोर्ड
50	Who is the Chairman of Zonal Railways Official Language Implementation Committee?	
	(A) MRA	(B) PCPO
	(C) GM	(D) Chairman, Railway Board
	Ans: C	
51	राजभाषा अधिनियम 1963 में कुल कितनी धाराएं हैं?	
	(A) 9	(B) 10
	(C) 11	(D) 12
52	How many Sections are there in the Official Language Act 1963?	
	(A) 9	(B) 10
	(C) 11	(D) 12
	Ans: A	
53	राजभाषा अधिनियम 1963 की किस धारा के अंतर्गत केंद्र सरकार को राजभाषा संबंधित नियम बनाने की शक्ति दी गई है?	
	(A) धारा -6	(B) धारा -7
	(C) धारा -8	(D) धारा -9

53	Under which section of the Official Language Act, 1963, the Central Government has been given the power to make rules related to the Official Language?	
	(A) Section -6	(B) Section -7
	(C) Section -8	(D)Section -9
	Ans: C	
54	तकनीकी रेल विषयों पर हिंदी में मौलिक पुस्तकें लिखने के लिए चालू की गई योजना कौन सी है?	
	(A) विश्वेश्वरैया तकनीकी मौलिक पुस्तक लेखन पुरस्कार योजना	(B) लाल बहादुर शास्त्री तकनीकी मौलिक पुस्तक लेखन पुरस्कार योजना
	(C) आचार्य महावीर प्रसाद तकनीकी मौलिक पुस्तक लेखन पुरस्कार योजना	(D)शिवसागर मिश्र तकनीकी मौलिक पुस्तक लेखन पुरस्कार योजना
54	What is the scheme launched for writing original books in Hindi on technical subjects of Railway?	
	(A)Visvesvaraya Technical Original Book Writing Award Scheme	(B) Lal Bahadur Shastri Technical Original Book Writing Award Scheme
	(C) Acharya Mahavir Prasad Technical Original Book Writing Award Scheme	(D)Sivasagar Mishra Technical Original Book Writing Award Scheme
	Ans: B	
55	मौलिक कथा/कहानी संग्रह एवं उपन्यास लेखन को पुरस्कृत करने हेतु चलाई गई योजना का क्या नाम है?	
	(A) मैथिलीशरण गुप्त पुरस्कार योजना	(B) मुंशी प्रेमचंद पुरस्कार योजना
	(C) माखनलाल चतुर्वेदी पुरस्कार योजना	(D)भारतेन्दु हरिश्चंद्र पुरस्कार योजना
55	What is the name of the scheme launched to award original fiction / story collection and novel writing ?	
	(A)Maithilisharan Gupta Award Scheme	(B) Munshi Premchand Award Scheme
	(C) Makhanlal Chaturvedi Award Scheme	(D)Bharatendu Harishchandra Award Scheme
	Ans: B	
56	मौलिक काव्य, कविता संग्रह को पुरस्कृत करने हेतु चलाई गई योजना का क्या नाम है?	

	(A) महादेवी वर्मा पुरस्कार योजना	(B) रवींद्रनाथ ठाकुर पुरस्कार योजना
	(C) मैथिलीशरण गुप्त पुरस्कार योजना	(घ)माखनलाल चतुर्वेदी पुरस्कार योजना
56	What is the name of the scheme launched to award Original Poetry, Poetry collection?	
	(A)Mahadevi Verma Award Scheme	(B) Rabindranath Thakur Award Scheme
	(C)Maithilisharan Gupta Award Scheme	(D)Makhanlal Chaturvedi Award Scheme
	Ans: C	
57	राजभाषा अधिनियम 1976 के किस नियम के अंतर्गत कर्मचारी फाइल पर टिप्पणी या कार्यवृत्त हिंदी या अंग्रेजी में लिख सकता है?	
	(A) नियम 3(1)	(B) नियम 7(1)
	(C) नियम 8(1)	(D)नियम 10(1)
57	Under which rule of the Official Language Act 1976, an employee can write Notings or minutes on the file in Hindi or English?	
	(A) Rule 3(1)	(B) Rule 7(1)
	(C) Rule 8(1)	(D) Rule 10(1)
	Ans: C	
58	रेलवे बोर्ड राजभाषा कार्यान्वयन समिति के अध्यक्ष कौन होते हैं?	
	(A) अध्यक्ष, रेलवे बोर्ड	(B) निदेशक (राजभाषा)
	(C) सदस्य (कार्मिक)	(D)रेल मंत्री
58	Who is the Chairman of the Railway Board Official Language Implementation Committee?	
	(A) Chairman, Railway Board	(B) Director (OL)
	(C) Member Staff	(D)Railway Minister
	Ans: A	
59	रेलवे बोर्ड राजभाषा कार्यान्वयन समिति के सदस्य सचिव कौन होते हैं?	
	(A) उप निदेशक(राजभाषा)	(B) निदेशक (राजभाषा)
	(C) सदस्य (कार्मिक)	(D)रेल मंत्री
59	Who is the member secretary of the Railway Board Official Language Implementation Committee?	

	(A) Dy Director (OL)	(B) Director (OL)
	(C) Member (Staff)	(D) Railway Minister
	Ans: B	
60	राजभाषा अधिनियम की धारा 3(3) के अनुपालन का दायित्व किसको सौंपा गया है?	
	(A) कार्यालय के प्रशासनिक प्रधान को	(B) राजभाषा अधिकारी को
	(C) ऐसे दस्तावेजों पर हस्ताक्षर करने वाले अधिकारी को	(D) संबंधित लिपिक को
60	Who is entrusted with the responsibility of complying with Section 3(3) of the Official Language Act?	
	(A) Administrative Head of the office	(B) Rajbhasha Adhikari
	(C) officer signing such documents	(D) Concerned Clerk
	Ans: C	
61	राजभाषा नियम 1976 के किस नियम के अंतर्गत हिंदी में प्राप्त पत्रों के उत्तर किस भाषा में देना अपेक्षित है?	
	(A) हिंदी	(B) अंग्रेजी
	(C) हिंदी या अंग्रेजी	(D) हिंदी-अंग्रेजी द्विभाषी
61	Under which rule of the Official Language Rules 1976, in which language is it required to reply to the letters received in Hindi?	
	(A) Hindi	(B) English
	(C) Hindi or English	(D) Hindi-English bilingual
	Ans: A	
62	राजभाषा विभाग, गृह मंत्रालय द्वारा मंत्रा सॉफ्टवेयर किस कार्य के लिए विकसित किया गया है?	
	(A) अनुवाद	(B) टाइपिंग
	(C) नोटिंग	(D) डिक्टेशन
62	For which work has Mantra Software developed by the Department of Official Language, Ministry of Home Affairs?	
	(A) Translation	(B) Typing
	(C) Noting	(D) Dictation

	Ans: B	
63	भारत की भाषाओं के माध्यम से हिंदी सीखने के लिए उपलब्ध सॉफ्टवेयर का क्या नाम है?	
	(A) प्रवाचक	(B) श्रुतलेखन
	(C) मंत्र	(D) लीला
63	What is the name of the software available to learn Hindi through the languages of India?	
	(A) Pravachak	(B) Shruthlekhan
	(C) Mantra	(D) Leela
	Ans: D	

64	हिंदी स्पीच को हिंदी टेक्स्ट में बदलने से संबंधित सॉफ्टवेयर का क्या नाम है?	
	(A) श्रुतलेखन - राजभाषा	(B) लीला
	(C) प्रवाचक	(D) मंत्र
64	What is the name of the software related with converting Hindi speech to Hindi text?	
	(A) Shruthlekhan - Rajbhasha	(B) Leela
	(C) Pravachak	(D) Mantra
	Ans: A	
65	हिंदी टेक्स्ट को हिंदी स्पीच में बदलने से संबंधित सॉफ्टवेयर का क्या नाम है?	
	(A) रेल राजभाषा	(B) प्रवाचक - राजभाषा
	(C) लीला	(D) श्रुतलेखन
65	What is the name of the software related with converting Hindi text to Hindi speech ?	
	(A) Rail Rajbhasha	(B) Pravachak - Rajbhasha
	(C) Leela	(D) Shruthlekhan
	Ans: B	

66	हिंदी के प्रयोग के लिए वर्ष 2019-20 के वार्षिक कार्यक्रम के अनुसार 'ग' क्षेत्र से 'क' क्षेत्र के केंद्र सरकारी कार्यालयों के लिए हिंदी में कितना प्रतिशत मूल ँत्राचार निर्धारित है?	
	(A) 100%	(B) 70%
	(C) 60%	(D) 55%
66	According to the Annual Program for the usage of Hindi in the year 2019-20, what percentage of the original correspondence in Hindi is to be done from the 'C' region to the central government offices of 'A' region. ?	
	(A)100%	(B) 70%
	(C)60%	(D) 55%
	Ans: D	
67	हिंदी के प्रयोग के लिए वर्ष 2019-20 के वार्षिक कार्यक्रम के अनुसार 'ग' क्षेत्र से 'ख' क्षेत्र के लिए हिंदी में कितना प्रतिशत मूल ँत्राचार निर्धारित है?	
	(A) 100%	(B) 70%
	(C) 60%	(D) 55%
67	According to the Annual Program for the usage of Hindi in the year 2019-20, what percentage of the original correspondence in Hindi is to be done from the 'C' region to the central government offices of 'B' region?	
	(A)100%	(B)70%
	(C)60%	(D) 55%
	Ans: D	
68	हिंदी के प्रयोग के लिए वर्ष 2019-20 के वार्षिक कार्यक्रम के अनुसार 'ग' क्षेत्र से 'ग' क्षेत्र के लिए हिंदी में कितना प्रतिशत मूल ँत्राचार निर्धारित है?	
	(A) 100%	(B) 70%
	(C) 60%	(D)55%
68	According to the Annual Program for the usage of Hindi in the year 2019-20, what percentage of the original correspondence in Hindi is to be done from the 'C' region to the central government offices of 'C' region?	
	(A)100%	(B)70%
	(C)60%	(D)55%

	Ans: D	
69	हिंदी के प्रयोग के लिए वर्ष 2019-20 के वार्षिक कार्यक्रम के अनुसार 'ग' क्षेत्र से 'क' क्षेत्र और 'ख' क्षेत्र के राज्य/ संघ राज्य क्षेत्र के कार्यालय/ व्यक्ति के लिए हिंदी में कितना प्रतिशत मूल ंत्राचार निर्धारित है?	
	(A) 100%	(B) 85%
	(C) 60%	(D) 55%
69	According to the Annual Program for the year 2019-20 for the usage of Hindi, what percentage of original correspondence in Hindi is required to be done from 'C' region with the persons/offices of State / Union Territory of 'A' region and 'B' region?	
	(A) 100%	(B) 85%
	(C) 60%	(D) 55%
	Ans: B	

70	हिंदी के प्रयोग के लिए वर्ष 2019-20 के वार्षिक कार्यक्रम के अनुसार हिंदी में प्राप्त कितने प्रतिशत ंत्रों के उत्तर हिंदी में दिए जाने का लक्ष्य निर्धारित है?	
	(A) 40%	(B) 60%
	(C) 80%	(D) 100%
70	According to the Annual Program for the year 2019-2020 for the usage of Hindi, as per the target set what percentage of letters received in Hindi should be replied in Hindi ?	
	(A) 40%	(B) 60%
	(C) 80%	(D) 100%
	Ans: D	
71	हिंदी के प्रयोग के लिए वर्ष 2019-20 के वार्षिक कार्यक्रम के अनुसार 'ग' क्षेत्र में हिंदी में टिप्पण लिखने का कितना प्रतिशत लक्ष्य निर्धारित है?	
	(A) 30%	(B) 50%
	(C) 75%	(D) 100%
71	For the use of Hindi, according to the Annual Program for the year 2019-20, as per the target set what percentage of Hindi noting is required to be done in the 'C' region. ?	
	(A) 30%	(B) 50%

	(C) 75%	(D) 100%
	Ans: A	
72	हिंदी के प्रयोग के लिए वर्ष 2019-20 के वार्षिक कार्यक्रम के अनुसार 'ग' क्षेत्र में हिंदी में डिक्टेशन का कितना प्रतिशत लक्ष्य निर्धारित है?	
	(A) 25%	(B) 30%
	(C) 75%	(D) 100%
72..	For the use of Hindi, according to the Annual Program for the year 2019-20, as per the target set what percentage of Hindi Dictations are required to be given in the 'C' region?	
	(A) 25%	(B) 30%
	(C) 75%	(D) 100%
	Ans: B	

73..	हिंदी के प्रयोग के लिए वर्ष 2019-20 के वार्षिक कार्यक्रम के अनुसार 'ग' क्षेत्र में कंप्यूटर सहित सभी प्रकार के इलेक्ट्रॉनिक उपकरणों की द्विभाषिक रूप में खरीद का कितना प्रतिशत लक्ष्य निर्धारित है?	
	(A) 75%	(B) 80%
	(C) 90%	(D) 100%
73	According to the Annual Program for the year 2019-20 for the use of Hindi, what percentage of the target is set for the purchase of all types of electronic devices including computers in bilingual form in the 'C' region?	
	(A) 75%	(B) 80%
	(C) 90%	(D) 100%
	Ans: D	
74	भारत संघ के शासकीय प्रयोजन के लिए प्रयुक्त होने वाले अंकों का रूप क्या होना चाहिए?	
	(A) भारतीय अंकों का अंतर्राष्ट्रीय रूप	(B) देवनागरी अंक
	(C) रोमन अंक	(D) उपर्युक्त में से कोई भी नहीं
74	Which forms of the numerals should be used in official purposes of the Union of India?	
	(A) International form of Indian Numerals	(B) Devnagari numerals
	(C) Roman numerals	(D) None of the above

	Ans: A	
75	केंद्र सरकार के जिन कार्यालयों के _____ प्रतिशत कर्मचारियों ने हिंदी का कार्यसाधक ज्ञान प्राप्त कर लिया है, उन कार्यालयों के नाम भारत के राजपत्र में अधिसूचित किए जाते हैं?	
	(A) 60%	(B) 70%
	(C) 80%	(D) 100%
75	The names of the Central Government offices of which _____ percent employees have acquired working knowledge of Hindi are notified in the Gazette?	
	(A) 60%	(B) 70%
	(C) 80%	(D) 100%
	Ans: C	

76	केंद्र सरकार के जिन कार्यालयों के 80% प्रतिशत कर्मचारियों ने हिंदी का कार्यसाधक ज्ञान प्राप्त कर लिया है, उन कार्यालयों के नाम किस राजभाषा नियम के अंतर्गत भारत के राजपत्र में अधिसूचित किए जाते हैं?	
	(A) नियम 10(4)	(B) नियम 10(3)
	(C) नियम 10	(D) नियम 10(2)
76	Under which Official Language rule the names of the Central Government offices of which 80% of employees have acquired working knowledge of Hindi are notified in the Gazette. ?	
	(A) Rule 10(4)	(B) Rule 10(3)
	(C) Rule 10	(D) Rule 10(2)
	Ans: A	
77	रेलवे बोर्ड व्यक्तिगत नकद पुरस्कार योजना के अंतर्गत दी जानेवाली पुरस्कार की राशि कितनी है ?	
	(A) 2000 रु.	(B) 3000 रु.
	(C) 1000 रु.	(D) 1200 रु.
77	What is the amount of award given under Railway Board Individual Cash Award Scheme?	
	(A) Rs.2000	(B) Rs.3000
	(C) Rs.1000	(D) Rs.1200

	Ans: B	
78	गृह मंत्रालय, राजभाषा विभाग द्वारा जारी वार्षिक कार्यक्रम के अनुसार कितने प्रतिशत अनुभागों को हिंदी में शत-प्रतिशत कार्य करने के लिए नामित किया जाना आवश्यक है?	
	(A) 20	(B) 30
	(C) 55	(D) 100
78	According to the annual program issued by the Rajbhasha Department, Ministry of Home Affairs, what percentage of sections are required to be nominated for doing cent percent work in Hindi?	
	(A) 20	(B) 30
	(C) 55	(D) 100
	Ans: A	

79	केंद्र सरकार के जिन कार्यालयों के 80% प्रतिशत कर्मचारियों ने हिंदी का कार्यसाधक ज्ञान प्राप्त कर लिया है, उन कार्यालयों के नाम किस राजभाषा नियम के अंतर्गत भारत के राजपत्र में अधिसूचित किए जाते हैं?	
	(A) नियम 10(4)	(B) नियम 10(3)
	(C) नियम 10	(D) नियम 10(2)
79	Under which Official Language rule the names of the Central Government offices of which 80% of employees have acquired working knowledge of Hindi are notified in the Gazette. ?	
	(A) Rule 10(4)	(B) Rule 10(3)
	(C) Rule 10	(D) Rule 10(2)
	Ans: A	
80	राजभाषा नियम, 1976 के किस नियम के अंतर्गत प्रशासनिक प्रधान को राजभाषा अधिनियम और राजभाषा नियम के अनुपालन का उत्तरदायित्व सौंपा गया है ?	
	(A) नियम 12	(B) नियम 11
	(C) नियम 10	(D) नियम 3
80	Under which rule of the Official Language Rules, 1976, the administrative head is entrusted with the responsibility of complying with the Official Language Act and the Official Language Rules ?	
	(A) Rule 12	(B) Rule 11

	(C) Rule 10	(D) Rule 3
	Ans: A	
81	राजभाषा नियम 1976 के किस उपनियम के अनुसार कोई भी कर्मचारी आवेदन, अपील या अभ्यावेदन हिंदी या अंग्रेजी भाषा में कर सकता है?	
	(A) नियम 7(1)	(B) नियम 7(3)
	(C) नियम 8(1)	(D) नियम 8(4)
81	According to which sub rule of Official Language Rules 1976, an employee can submit his application, appeal or representation in Hindi or English?	
	(A) Rule 7(1)	(B) Rule 7(3)
	(C) Rule 8(3)	(D) Rule 8(4)
	Ans: A	

82	राजभाषा नियम 1976 के किस उपनियम के अनुसार कोई भी कर्मचारी मांग कर सकता है कि उस पर तामील किया जानेवाला आदेश या सूचना हिंदी या अंग्रेजी में दी जाए?	
	(A) नियम 7(1)	(B) नियम 7(3)
	(C) नियम 8(1)	(D) नियम 8(4)
82	According to which subrule of the Official Language Rules 1976, where an employee can demand any orders or notices served to him Hindi or in English.	
	(A) Rule 7(1)	(B) Rule 7(3)
	(C) Rule 8(3)	(D) Rule 8(4)
	Ans: B	
83	राजभाषा अधिनियम 1976 के किस नियम के अंतर्गत केंद्रीय सरकार के किसी कार्यालय में प्रयोग किए जानेवाले सभी नाम प्लेट, सूचना प्लेट, त्र शीर्ष, लिफाफों पर उत्कीर्ण लेख, लेखन सामग्री की अन्य मदें हिंदी और अंग्रेजी में होने चाहिए?	
	(A) नियम 11(1)	(B) नियम 11(3)
	(C) नियम 11(2)	(D) इनमें से कोई नहीं
83	Under which rule of the Official Language Act 1976, all name plates, sign boards, letter heads, inscriptions on envelopes, other items of stationery used in any central government office should be in Hindi and English?	

	(A) Rule 11(1)	(B) Rule 11(3)
	(C) Rule 11(2)	(D) None of the above
	Ans: B	
84	राजभाषा हिंदी में उत्कृष्ट कार्य करने के लिए महाप्रबंधकों और उनसे ऊपर के स्तर के अधिकारियों को निम्न में से कौन-सा सम्मान दिया जाता है?	
	(A) कमलापति त्रिपाठी राजभाषा स्वर्ण पदक	(B) रेल मंत्री राजभाषा रजत पदक
	(C) राजभाषा गौरव पुरस्कार	(D) रेल मंत्री राजभाषा स्वर्ण पदक
84	Which of the following honors are given to the General Managers and above level officers for doing excellent work in the Official Language Hindi ?	
	(A) Kamlapati Tripathi Rajbhasha Gold Medal	(B) Rail Manthri Rjbhasha Silver Medal
	(C) Rajbhasha Gourav Purskar	(D) Rail Manthri Rjbhasha Gold Medal
	Ans: A	

85	राजभाषा हिंदी में उत्कृष्ट कार्य करने के लिए वरिष्ठ प्रशासनिक ग्रेड और उनसे ऊपर के अधिकारियों को निम्न में से कौन-सा सम्मान दिया जाता है?	
	(A) कमलापति त्रिपाठी राजभाषा स्वर्ण पदक	(B) रेल मंत्री राजभाषा रजत पदक
	(C) राजभाषा गौरव पुरस्कार	(D) रेल मंत्री राजभाषा स्वर्ण पदक
85	Which of the following honors are given to the SAG and above officers for doing excellent work in the Official Language Hindi ?	
	(A) Kamlapati Tripathi Rajbhasha Gold Medal	(B) Rail Manthri Rjbhasha Silver Medal
	(C) Rajbhasha Gourav Purskar	(D) Rail Manthri Rjbhasha Gold Medal
	Ans: B	
86	एक कर्मचारी को अने दैनंदिन सरकारी कामकाज में वर्ष के दौरान हिंदी में कम से कम 10,000 शब्द लिखने पर किस पुरस्कार योजना के अंतर्गत पुरस्कृत किया जाता है.	
	(A) गृह मंत्रालय पुरस्कार योजना	(B) रेल मंत्री पुरस्कार योजना
	(C) महाप्रबंधक पुरस्कार योजना	(D) प्रोत्साहन पुरस्कार योजना
86	When an employee writes at least 10,000 words in Hindi during the year in his daily official work, Under which award scheme he will be awarded.	

	(A) Home Ministry Award Scheme	(B) Rail Mantri Award Scheme
	(C) General Manager Award Scheme	(D) Incentive award scheme
	Ans: A	
87	गृह मंत्रालय, राजभाषा विभाग द्वारा जारी वार्षिक कार्यक्रम के अनुसार कितने प्रतिशत अनुभागों को हिंदी में शत-प्रतिशत कार्य करने के लिए नामित किया जाना आवश्यक है?	
	(A) 20	(B) 30
	(C) 55	(D) 100
87	According to the annual program issued by the Rajbhasha Department, Ministry of Home Affairs, what percentage of sections are required to be nominated for doing cent percent work in Hindi?	
	(A) 20	(B) 30
	(C) 55	(D) 100
	Ans: A	
88	गृह मंत्रालय, राजभाषा विभाग द्वारा जारी वार्षिक कार्यक्रम के अनुसार केंद्र सरकारी कार्यालय के वेबसाइट का कितना प्रतिशत द्विभाषी होना चाहिए?	
	(A) 20.	(B) 30
	(C) 55	(D) 100
88	According to the Annual Programme issued by the Ministry of Home Affairs, Department of Official Language, what percentage of the central government office's website should be in bilingual?	
	(A) 20	(B) 30
	(C) 55	(D) 100
	Ans: D	
89	गृह मंत्रालय, राजभाषा विभाग द्वारा जारी वार्षिक कार्यक्रम के अनुसार सरकारी कार्यालयों में प्रयुक्त कोड, मैनुअल, प्रक्रिया, साहित्य का अनुवाद आदि का कितना प्रतिशत द्विभाषिक होना चाहिए.	
	(A) 20.	(B) 50
	(C) 55	(D) 100

89	According to the Annual Programme issued by the Ministry of Home Affairs, Department of Official Language, what percentage of the code, manual, procedure, translation of literature, etc. used in government offices should be bilingual.	
	(A) 20	(B) 30
	(C) 55	(D) 100
	Ans: D	
90	गृह मंत्रालय, राजभाषा विभाग द्वारा जारी वार्षिक कार्यक्रम के अनुसार प्रशिक्षण संस्थानों की कितनी प्रतिशत पाठ्य सामग्री का द्विभाषिक रूप में होना अनिवार्य है	
	(A) 20.	(B) 30
	(C) 55	(D) 100
90	According to the annual programme issued by the Ministry of Home Affairs, Department of Official Language, what percentage of the training material of training institutes should be in bilingual form	
	(A) 20	(B) 30
	(C) 55	(D) 100
	Ans: D	
91	गृह मंत्रालय, राजभाषा विभाग द्वारा जारी वार्षिक कार्यक्रम के अनुसार राजभाषा विभाग के अधिकारियों द्वारा अपने अधीनस्थ कार्यालयों का न्यूनतम कितने प्रतिशत कार्यालयों का निरीक्षण किया जाना अनिवार्य है	
	(A) 20.	(B) 25
	(C) 55	(D) 100
91	According to the Annual Programme issued by the Department of Official Language, Ministry of Home Affairs, it is mandatory for officers of the Official Language Department to inspect the minimum percentage of their subordinate offices.	
	(A) 20	(B) 25
	(C) 55	(D) 100
	Ans: B	
92	गृह मंत्रालय, राजभाषा विभाग द्वारा जारी वार्षिक कार्यक्रम के अनुसार पुस्तकालयों के अनुदान में से कितनी प्रतिशत राशि हिंदी पुस्तकों, हिंदी ई-पुस्तकों पर व्यय की जानी अपेक्षित है.	
	(A) 20.	(B) 50

	(C) 55	(D) 100
92	According to the annual programme issued by the Ministry of Home Affairs, Department of Official Language, what percentage of the grant of libraries is required to be spent on Hindi books, Hindi e-books	
	(A) 20	(B) 50
	(C) 55	(D) 100
	Ans: B	
93	हिंदी टाइपिंग परीक्षा पास करने पर कितने महीने के लिए एक वेतन वृद्धि के बराबर व्यक्तिगत वेतन दिया जाता है?	
	(A) 36	(B) 24
	(C) 6	(D) 12
93	On passing Hindi typing examination, for how many months personal pay equal in amount to one increment is given?	
	(A) 36	(B) 24
	(C) 6	(D) 12
	Ans: D	
94	हिंदी आशुलिपि परीक्षा पास करने पर कितने महीने के लिए एक वेतन वृद्धि के बराबर व्यक्तिगत वेतन दिया जाता है?	
	(A) 6	(B) 36
	(C) 12	(D) 24
94	On passing Hindi Stenography examination, for how many months personal pay equal in amount to one increment is given?	
	(A) 6	(B) 36
	(C) 12	(D) 24
	Ans: D	
95	अगर भारत का कोई राज्य संविधान में प्रदत्त शक्तियों का प्रयोग करते हुए अपने क्षेत्र में बोली जाने वाली भाषाओं में से अपनी राजभाषा का चयन नहीं करता है तो उस राज्य की राजभाषा क्या होगी?	
	(A) उस राज्य में बोली जाने वाली सभी भाषाएं	(B) हिंदी भाषा
	(C) अंग्रेजी भाषा	(D) उपर्युक्त में से कोई भी नहीं
95	If a state does not choose Official Language for itself from the languages spoken in the state what language will be its Official Language?	

	(A) All the languages spoken in the state	(B) Hindi Language
	(C) English Language	(D) None of the above
	Ans: C	
96	संसद के प्रत्येक सदन या किसी राज्य के विधान-मंडल के सदन या प्रत्येक सदन में रखे जाने वाले सभी विधेयकों या प्रस्तावित किए जाने वाले संशोधनों के प्राधिकृत ठाठ किस भाषा में होंगे?	
	(A) हिंदी में	(B) अंग्रेजी में
	(C) भारत के संविधान में उल्लिखित किसी भी भाषा में	(D) उपर्युक्त में से कोई भी नहीं
96	The authoritative texts of all Bills to be introduced or amendments thereto to be moved in either House of Parliament or in the House or either House of the Legislature of a State shall be in which language?	
	(A) In Hindi	(B) In English
	(C) In any of the Languages mentioned in 8 th Schedule of the Constitution of India	(D) None of the above
	Ans: B	
97	भारत के संविधान के वर्तमान उपबंधों के अनुसार उच्चतम न्यायालय और प्रत्येक उच्च न्यायालय की कार्यवाहियां भाषा में होनी है.	
	(A) हिंदी में	(B) अंग्रेजी में
	(C) भारत के संविधान में उल्लिखित किसी भी भाषा में	(D) उपर्युक्त में से कोई भी नहीं
97	As per the prevailing provisions of the Constitution of India all proceedings in the Supreme Court and in every High Court shall be in..... language.	
	(A) In Hindi	(B) In English
	(C) In any of the Languages mentioned in 8 th Schedule of the Constitution of India	(D) None of the above
	Ans: B	

98	संवैधानिक उद्बन्धों के अनुसार हिंदी भाषा को भारतीय सामासिक संस्कृति के सभी तत्वों की अभिव्यक्ति का माध्यम बनाने हेतु इसे समृद्ध बनाने के लिए जहां कहीं आवश्यक या वांछनीय हो वहां मुख्यतः किस भाषा से शब्दों को ग्रहण किया जाना है?	
	(A) अंग्रेजी भाषा से	(B) हिंदुस्तानी भाषा से
	(C) बोलचाल की भाषा से	(D) संस्कृत भाषा से
98	As per the provisions of the Constitution of India vocabulary should be drawn primarily from which language wherever necessary or desirable for enrichment of Hindi Language to serve as medium of expression for all the elements of the composite culture of India?	
	(A) English Language	(B) Hindustani Language
	(C) Lingua Franca	(D) Sanskrit Language
	Ans: D	
99	हिंदीतर भाषी क्षेत्रों में बोर्डों को किस क्रम में प्रदर्शित जाता है?	
	(A) हिंदी, अंग्रेजी, क्षेत्रीय भाषा	(B) अंग्रेजी, हिंदी, क्षेत्रीय भाषा
	(C) क्षेत्रीय भाषा, हिंदी, अंग्रेजी	(D) क्षेत्रीय भाषा, अंग्रेजी, हिंदी
99	In which order the boards are displayed in non-Hindi speaking areas?	
	(A) Hindi, English, Regional Language	(B) English, Hindi, Regional Language
	(C) Regional Language, Hindi, English	(D) Regional Language, English, Hindi
	Ans: C	
100	रेलवे स्टेशनों पर उद्घोषणाओं का क्रम क्या होना चाहिए ?	
	(A) हिंदी, क्षेत्रीय भाषा, अंग्रेजी	(B) हिंदी, अंग्रेजी, क्षेत्रीय भाषा
	(C) क्षेत्रीय भाषा, हिंदी, अंग्रेजी	(D) क्षेत्रीय भाषा, अंग्रेजी, हिंदी
100	What should be the order of announcements at Railway stations?	
	(A) Hindi, regional language, English	(B) Hindi, English, Regional language,
	(C) Regional language, Hindi, English	(D) Regional language, English, Hindi
	Ans: C	