

SELECTION FOR THE POST OF JE/TELE (LEVEL-6) OF PAY MATRIX UNDER VII CPC AGAINST 30% PROMOTIONAL QUOTA, S&T DEPARTMENT (TELE WING), CHENNAI DIVISION.

Date : 09.05.2019
Time : 10.00 hours

Total marks : 100
Duration : 120 Minutes

Instructions to the Candidates:

1. Candidates should write their name, designation, office, roll number/staff number etc., ONLY in the space provided in the fly leaf and not in any of the page in the answer books or additional sheets.
2. Any names/roll numbers if found in the answer books or additional sheets, such papers will be disqualified.
3. In the answers to the objective type questions, no correction of any type is permitted. In case any correction is made, that answer shall not be evaluated at all for e.g (a) cutting (b) overwriting (c) Erasing (d) scoring off a ticked answer in multiple choice and ticking another answer and (e) modifying the answer in any way will not be evaluated at all.
4. Each Question carries **1 mark**.
5. There are 110 questions of Multiple choice answers to this question paper.
6. Question Nos. 1 to 100 are related to Professional subject and Question Nos. 101 to 110 are on Official language policy and Rules, which are optional. The candidates should choose any 100 questions (100 only) out of the 110 questions asked.
7. Candidates may note that there shall be negative marking for incorrect answers. One third of the marks allotted for each question will be deducted for wrong answers. Cutting, Overwriting, Erasing or Alteration of any type in the answer, will not be accepted to ensure authenticity of the answers. Zero marks will be given for answer having correction/overwriting.
8. The Question paper has 08 pages.

1.	Optical fibres accept _____ signals only	
	A. Unipolar B. Bipolar	C. Any polarity D. None of the above
2.	Diameter of each core in 6 Quad Cable is _____	
	A. 1.6mm B. 1.7 mm	C. 0.9 mm D. 1.5 mm
3.	Final capacitance value when two capacitors of 500 MFD connection in parallel is _____ MFD	
	A. 1000 B. 1200	C. 1500 D. None of the above
4.	The out put of NOT gate is _____ of its input.	
	A. Parallel B. Inverse	C. Reverse D. None
5.	_____ noise should not exceed 2 mili volts	
	A. Psophometric B. Isometric	C. Biometric D. None of the above
6.	In PCM, bit rate of 30 channels is _____	
	A. 1.450 mbps B. 1.540 mbps	C. 2.048 mbps D. 2.408 mbps
7.	_____ is essential when loud speaker are connected in voltage matching.	
	A. Inverter B. Horn	C. Walkie Talkie D. Matching Transformer
8.	_____ is the raw material used for making Optic Fibre.	
	A. Polymer B. Nylon	C. Silica D. Copper
9.	Whenever Cables has to cross the track, it should be ensured that ;	
	A. The cables cross the track at right angles. B. The cables are laid openly crossing the tracks.	C. The cables cross track under Points and crossings. D. None of the above.

10.	_____ provide a high-quality joint with the lowest loss and are practically non-reflective.	A. Mechanical Splices B. Fusion Splices	C. Electrical Splices D. None of the above
11.	_____ Cable is used for Level Crossing Gate Circuit Phone.	A. Quad 5/2 B. Quad 6/4	C. Quad 4/1 D. None of the above
12.	While providing Railnet connectivity, a media converter or an _____ can be used for extension of LAN through OFC.	A. Quad Cable B. Optical Ethernet Switch	C. Optical Fiber Switch D. Optical Switch
13.	PTZ in camera stands for _____	A. Pan Tilt Zone B. Part Tilt Zone	C. Pan Tilted Zonal D. None of the above
14.	In Analog surveillance system video signal is transferred to the DVR in a _____ cable	A. Quad B. Copper	C. Coaxial D. System
15.	Which of the following statement is correct for Analog surveillance system?	A. Has got restriction on distance. Does not support wireless B. Easy installation and Supports wireless	C. No restriction on distance and supports wireless D. None of the above.
16.	ISDN stands for _____	A. Internal Services Digital Network B. Internal Service Digit Net	C. Integrated Service Digit Net D. Integrated Services Digital Network
17.	ISDN complements the traditional telephone system so that a _____ pair of telephone wires is capable of carrying voice and data simultaneously.	A. Single B. Double	C. Both Single and Double D. None of the above.
18.	FOIS stands for _____	A. Freight Operation Informations System B. Freight Operational Information System	C. First Operation Informations system D. None of the above.
19.	The Antenna used in Walkie-Talkie is _____	A. Traditional Antenna B. Helical	C. Steel D. None of the above
20.	In OFC cable Refractive Index of _____ is less than Refractive Index of Core.	A. Meggering B. Cladding	C. Copper D. All of above
21.	_____ will start if output of an amplifier fed back to input.	A. Circulation B. Spiral	C. Oscillation D. Current
22.	While arranging PA systems for VIP functions, the amplifying system should be chosen in such a way that it is capable of establishing at any point amongst the audience, a desirable sound level of _____ during operation.	A. 80 dB B. 110 dB	C. 100 dB D. 60 dB
23.	While connecting loudspeakers, all the loud speakers in each group should be connected _____ and in phase across the output line.	A. One behind the other B. One above the other	C. In Parallel D. None of the above
24.	Routine Transmission loss test as per Telecom Manual Chapter VIII is _____	A. Monthly B. Quarterly	C. Half yearly D. Yearly

25.	UTS, PRS, POET Terminals come under _____	
	A. Public Utilities B. Passenger Amenities	C. Station Amenities D. None of the above.
26.	Earth Resistance of armour should be _____	
	A. Less than 1 ohm B. More than 1 ohm	C. Exactly 1 ohm D. None of the above
27.	Crosstalk Test (near end far end) should be done Quarterly as per Telecom Manual the sound level should be _____	
	A. Better than -55 dB at 155 khz B. Less than -55 dB at 155 khz	C. Both (a) & (b) D. None of the above
28.	Stored Program is associated with _____	
	A. Optic Fibre B. VRLA Battery	C. Electronic Exchange D. Charting
29.	Cable Fault Locator is associated with _____	
	A. Bridge B. Switch to IO	C. Maintenance free D. Pulse Echo Reflection.
30.	Rayleigh back scattering of light is associated with _____	
	A. PTZ B. UTP	C. OTDR D. COA
31.	License fee is associated with _____	
	A. Lan Extender B. SW Walkie-Talkie	C. Pan Tilt D. VRLA Battery
32.	_____ changes or modulates digital data into electronic analog signals that the telephone network can carry.	
	A. LAN B. STM	C. Modem D. None of the above
33.	SMPS stands for _____	
	A. Switch Model Prime Supply B. Saturated Mode Power Supply	C. Switch Mode Power Supply D. None of the above
34.	HOER Rules applies to all non gazetted Employees working in the Railways except _____	
	A. RPF staff B. Staff governed under Factory Act, Mining Act	C. Casual Labours governed under Minimum Wages Act. D. All of the above.
35.	Maximum number of way station connected in DTMF _____	
	A. 99 B. 64	C. 32 D. 16
36.	D Channel data rate in PRI is _____	
	A. 34 kbps B. 44 kbps	C. 54 kbps D. 64 kbps
37.	The signalling standards determine the Modem speed which is measured in bps. What does 'bps' stand for?	
	A. Bytes per second B. Bits per second	C. Bites per second D. None of the above
38.	In IP based surveillance _____ video recorder will be used.	
	A. DVD B. Network	C. Both (a) & (b) D. None of the above.
39.	_____ fire extinguishers for datacom installations should not be used.	
	A. Sand based B. Water based	C. Air based D. None of the above.
40.	Electronic equipments are to be provided with _____ SPD at both ends of the conductors.	
	A. Class-A B. Class-B	C. Class -C D. Class-D

41.	The megger is a portable instrument used to measure _____ of cables.	A. Failure B. Cable Cut	C. Insulation resistance D. None of the above.
42.	The number of days Maternity Leave admissible to Women employees is _____	A. 90 days B. 120 days	C. 150 days D. 180 days
43.	The Loop resistance of Quad cable 0.9mm dia is _____ Ohms/Loop km.	A. 56 B. 66	C. 76 D. 86
44.	Earth is _____ Conductor	A. Good B. Bad	C. Both (A) & (B) D. None of the above.
45.	_____ bits make One Kilo byte (Kb)	A. 1204 B. 1402	C. 1024 D. 4102
46.	The transmission of 6 Quad Cable in unloaded cable is _____ dB/Loop Km.	A. 0.169 B. 0.916	C. 0.619 D. 0.9
47.	_____ are normally provided at every 50 meters on the cable route.	A. Stop Boards B. Cable route indicators.	C. Both (A) & (B) D. Cable Markers
48.	Emergency telephone socket post shall be painted with alternatively black and white paints for _____ length each.	A. 15 cms B. 15 meters	C. 15 kms D. None of the above.
49.	Microwave communication have a frequency range of _____	A. 3 GHz to 30 GHz B. 30 GHz to 40 GHz	C. 4 GHz to 50 GHz D. None of the above.
50.	PIJF stands for _____	A. Pole insulated Jelly field B. Polythene Insulated Jelly Field	C. Prime Insulation jelly field D. None of the above.
51.	_____ can be described as the nerve centers of the Divisional operating organization.	A. Control Office B. Exchange Board	C. Divisional Office D. None of the above.
52.	Communication between control office & way stations on electrified areas, the control communication circuits are provided on _____ basis through under ground communication cable wires.	A. 4-wire B. 2-Wire	C. 3-Wire D. None of the above
53.	The maximum limit of induced voltage is 150Volts as per the directives of ITU the interval between any two cable huts shall be around _____	A. 15 Km B. 16 Km	C. 17 Km. D. 18 Km
54.	The control communication circuits are engineered to meet the following requirements:	A. Speech B. Signalling	C. Both (A) & (B) D. None of the above.
55.	Media used for providing control communication circuits :	A. Optical Fiber cable B. RE quad cable	C. 6 Quad cable D. All of the above

56.	During selective calling using DTMF Signalling method two tones of frequency within the voice band are sent out on line corresponding to a given digit. Between the two frequencies _____ both within the VF band.	A. One is low frequency and other a high frequency B. Both are Low frequency	C. Both are high frequency D. None of the above.
57.	In cellular communication, cells are to be separated in _____ to avoid Co-channel Interference.	A. Time B. Space	C. Time space frequency D. Both Time and Space
58.	The control office equipment is designed for 4-Wire operation which can be converted into 2-Wire operation by provision of a _____ attachment.	A. Coaxial B. Switch	C. Hybrid D. None of the above.
59.	The EMC post should be erected at a distance not _____ from the outermost rail of the track.	A. less than 3m B. More than 4m	C. Anywhere near the track D. None of the above.
60.	VF repeater stations, installed on Railway are _____	A. Conventional type B. Equalizer type	C. Both (A) & (B) D. None of the above
61.	Patching with co-axial/OFC channels are hired from _____	A. Railtel B. BSNL	C. MTNL D. CORE
62.	Drivers & Guards are provided with _____ to communicate with the controller in case of accidents and other unusual occurrences.	A. Portable EMC Telephone B. Wireless Telephone	C. Auto Phone D. Magneto Phone
63.	In the 24 Channel PCM System _____ violation technique is used to detect errors in the line signal.	A. Unipolar B. Bipolar	C. Tripolar D. None of the above.
64.	The height of EMC post should be _____	A. 1 meter B. 1.8 meter	C. 2 Meter D. 2.8 meter
65.	Censure comes under _____	A. Major Penalty B. Minor Penalty	C. Warning D. None of the above.
66.	Metallic sheath is provided in RE cable to _____	A. Reduce induced voltage B. Reduce cross-talk	C. Reduce weight of cable D. All of the above.
67.	The Cell used in Walkie-Talkie is _____	A. Lead Acid B. Torch Cell	C. LMLA Cell D. Ni-lead Cell
68.	Inverter converts _____	A. AC to DC B. DC to AC	C. AC to AC D. DC to DC
69.	NMS stands for _____	A. Net Management System B. Network Manage System	C. Network Management System D. None of the above.

70.	Time slot are available in PUNCOM MUX _____	
	A. 36 B. 35	C. 33 D. 32
71.	OTDR stands for _____	
	A. Optical Time Domine Reflecto meter B. Optical Time Domine Reflect	C. Optimum Time Domain Reflector D. None of the above.
72.	Under HOER Supervisor comes under _____ Category.	
	A. Excluded B. Intensive	C. Continuous D. Essentially Intermittent
73.	SMPS is associated with _____	
	A. IMARSAT B. VSAT	C. MOSFET D. SPD
74.	To arrest the equipments from high voltage due to surge and lighteners is called _____	
	A. Modem B. Surge Protection	C. Patching D. SMPS
75.	Voice, Video and Text is associated with _____	
	A. ISDN Exchange B. Telephone	C. Modem D. PA System
76.	PRS is associated with _____	
	A. Arrest Deficiencies of manual intervention B. UTS	C. Computerised Reservation. D. All of the above.
77.	The Support Management system of Telecommunication System to improve efficiency is _____	
	A. PRS B. SPD	C. NMS D. VSAT
78.	Testing of integrity of fiber optic cable is one of the feature of _____	
	A. QTDR B. OTDR	C. SMPS D. None of the above.
79.	A credit of _____ days of Leave on Half Average Pay is given in a calender year.	
	A. 300 B. 30	C. 20 D. 10
80.	DTMF stands for _____	
	A. Duel Tone Multi Frequency. B. Dia-Tone Multi Frequency.	C. Diagonal Tune Multi Frequency D. Direct Tone Multi Frequency.
81.	The penalty of Compulsory Retirement, removal of service, termination, reversion to lower stage fall under _____	
	A. Major Penalty B. Minor Penalty	C. Both (A) & (B) D. None of the above.
82.	The Electrolyte used in lead acid cell is _____	
	A. Nitric Acid B. Citric Acid	C. LMLA Cells D. Sulphuric Acid
83.	The most widely used instrument for investigating both Analogue as well as Digital Circuits is _____	
	A. Oscilloscope B. Stethoscope	C. Voltmeter D. Ammeter
84.	The insulation –resistance test set for measuring large values of electrical resistance is termed as _____	
	A. Megger B. Patching	C. Potential test D. None of the above.
85.	In case of Conductor break fault (one limb or both) A _____ reflection will be shown at the point of break.	
	A. Negative B. Positive	C. Neutral D. None of the above.

86.	The most common digital display in modern equipment is _____ segments.	A. Nine B. Eight	C. Seven D. Six
87.	The terms DCA, main gate, trigger, input amplifier, main gate flip-flop, time base and display clock in a block diagram is associated with	A. SPD B. VSAT	C. Frequency Counter D. None of the above.
88.	On Indian Railways, the Overhead telecom lines can be classified as _____	A. Main line alignment B. Local line alignment	C. Both (A) & (B) D. None of the above.
89.	The posts for overhead alignments, most commonly used in the BSNL are tubular posts, known as _____	A. Tripod posts B. Quadruped posts	C. Single Head posts D. Hamilton Standards
90.	Microphone converts acoustic energy into _____ energy	A. Electrical B. Mechanical	C. Sound D. None of the above
91.	One of the minimum essential equipments to be provided in the ART is Amplifier of minimum 20 watts power output (having interface for cordless microphones). Its operating voltage should be _____	A. 12 V DC B. 13 V DC	C. 14 V DC D. 15 V DC
92.	Low Speed modem works on _____	A. 44 kbps B. 54 kbps	C. 64 kbps D. 74 kbps
93.	Range of recommended specific gravity of electrolyte of lead acid cell is _____	A. 1200-1220 B. 1220-1400	C. 1400-1620 D. None of the above.
94.	Battery, inverter & DC-DC concept is associated with _____	A. ISS B. IPS	C. PRS D. None of the above
95.	TPWS stands for _____	A. Train Practice Warning System B. Track Process Warning System	C. Train Protection Warning System D. None of the above.
96.	While selecting the cable route, it is always preferable to choose _____	A. the curved line B. the straight line	C. the loop line D. None of the above.
97.	At Level Crossing Gates minimum _____ of loose cable should be coiled	A. One meter B. Two Meters	C. Three Meters D. Four Meters
98.	PDCH stands for _____	A. Platform Data Communication Hub B. Passenger Data Center Hub	C. Passenger Display Center hub D. None of the above.
99.	Platform display boards which are suspended in the middle of the platform shall have _____ indications.	A. Single faced B. Double faced	C. Both (A) & (B) D. No boards required.
100.	The 12F armoured (OFC) cable also used for underground and aerial laying purposes contains _____ number of single loose tubes.	A. Ten B. Eleven	C. Twelve D. Thirteen

101.	The Official Languages Act 1963 was amended in the year _____ A. 1967 B. 1976	C. 1977 D. 1987
102.	According to Official Language Rules, Andaman & Nicobar Islands come under the region _____ A. A B. B	C. C D. None of the above.
103.	The Official Language of Arunachal Pradesh is _____ A. Hindi B. Oriya	C. English D. Punjabi
104.	At present _____ languages are enlisted in the Eighth Schedule of the Constitution A. 19 B. 20	C. 21 D. 22
105.	The Elementary Hindi Course prescribed for Central Government employees is _____ A. Prabodh B. Praveen	C. Pragya D. None of the above.
106.	The Chairman of the Central Hindi Committee is _____ A. The President B. The Prime Minister	C. Deputy Speaker D. State Minister
107.	Hindi Regular Exams are conducted Twice in a year. One is during May the other is in the month of _____ A. June B. August	C. October D. November
108.	Employees who speak South India Languages are classified under _____ A. Category A B. Category B	C. Category C D. Category D
109.	The forms used by Public should be prepared in _____ A. One Language B. Bi-lingual	C. Tri lingual D. None of the above
110.	Name the foreign language included in the Eighth Schedule. A. Nepali B. Bengali	C. Marathi D. Telegu

SOUTHERN RAILWAY: CHENNAI DIVISION

Selection for the post of Junior Engineer/ Telecom in level -6 of VII PC Pay Matrix (30% Promotional Quota)

Date: 30.04.2024







Total Marks: 100

Time: 11:00 Hours (120 minutes)

Instructions for Candidates:

PLEASE READ ALL THE INSTRUCTIONS CAREFULLY BEFORE MAKING ANY ENTRY IN THE ANSWER SHEET

1.	Check that the Question Paper contains 110 questions and if any unprinted/torn pages are found, get it replaced.
2.	There will be 110 questions with four multiple choice answers. Each Question carries equal mark. There will be NO negative mark for wrong answer.
3.	It may be noted that in the event of any doubt/discrepancy, the most apt option and the English version will prevail. The candidates appearing for the exam are requested to clarify their doubts about any questions/ option, at the beginning of / during the examination, so that the same shall be clarified/ corrected/ substituted, for the benefit of all.
4.	Candidates are required to fill Items No. 1 to 11 in the OMR answer sheet. Use only Blue/Black Ball Point Pen for writing/shading/darkening on the OMR Sheet. Gel Pens/Pencils are not allowed.
5.	Please enter your <u>Employee No. / PF No.</u> in the Box provided in the Answer Sheet and darken the corresponding circle.
6.	The OMR answer sheet contains duplicate copy and DO NOT ATTEMPT TO SEPARATE OR DISPLACE THE DUPLICATE COPY WHILE ANSWERING. The shading/darkening done on the original OMR answer sheet will automatically appear on the Carbonless Copy and hence no separate shading/darkening requires on the carbonless copy.
7.	Corrections of any type on the OMR Sheet (eg. overwriting, cutting, erasing or alterations of any type in the answer) will not be accepted. Zero marks will be given for such answers. No replacement OMR sheet will be provided.

8.	<p>Answers to Questions 1 to 110 are given in the multiple choice as A,B,C,D. Choose only one correct answer to each question from the multiple choice given (A,B,C,D) and darken/shade the appropriate circle fully. Changes are not permitted once answered.</p> <table border="1" data-bbox="454 316 1305 537"> <tr> <td data-bbox="454 316 774 537"> <p style="text-align: center;"><u>Correct Method</u></p> <div style="text-align: center;"></div> </td> <td data-bbox="774 316 1305 537"> <p style="text-align: center;"><u>Wrong Methods</u></p> <div style="text-align: center;">  </div> </td> </tr> </table>	<p style="text-align: center;"><u>Correct Method</u></p> <div style="text-align: center;"></div>	<p style="text-align: center;"><u>Wrong Methods</u></p> <div style="text-align: center;">  </div>
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9.	<p>Candidates are strictly advised to answer only 100 questions out of 110 questions. The first attempted 100 questions will be evaluated and answering more than 100 will be ignored even though correctly answered. Answering of questions in official language is NOT COMPULSORY.</p>		
10.	<p>Please handover the OMR sheet along with its duplicate copy to the invigilator before leaving the examination hall. No OMR sheet copy should be carried by the candidate. Candidates are allowed to take the Question Paper with them after the examination.</p>		
11.	<p>Candidates are <u>not allowed to keep mobile phones/electronic gadgets or any other documents/papers with them in the Examination Hall. In spite of all the instructions if any candidate is found to be carrying such equipments, candidates will be disqualified unconditionally.</u></p>		

QUESTIONS (1 to 110)

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1.	As per RDSO Specification RDSO/SPN/TC/038-2002 Ver2.0 for Voice Data Logger/Monitor for Control Circuits, the power requirement of the entire equipment shall be A) less than 1Kw B) less than 500 Watt. C) more than 1Kw D) more than 500 watt.
2.	What is the codal life of SMPS based Telecom Charger and VRLA batteries? A) 12 and 4 years B) 12 and 5 Years C) 15 and 5 years D) 15 and 4 years
3.	Codal Life of VHF 5W set battery of Driver and guard is ____ year(s) and others is ____ year(s) A) 2 and 2 B) 1 and 2 C) 2 and 1 D) 1 and 1
4.	What is the designated colour code of the spare conductors that may be used for Block circuit connectivity in a 6Quad cable of RE area? A) Orange White Red Grey B) Blue White Red Grey C) Brown White Red Grey D) Green White Red Grey
5.	Which of the following statement is incorrect regarding Tele-Presence As A Service A) Associated with PAN India Video-Conferencing B) Maintained through STM-16 Link of Divisions C) Associated with DRM-GM-RB online meetings D) Have a complete set of Hardware-Software-Firmware in closed network architecture.
6.	As per the Telecom Manual -2021, the major component of VoIP based TCCS A) Control Communication network (CCN). B) HQ equipment/servers for control communication C) Waystation equipment including control phones. D) All of the above.
7.	IEC code for surge protection devices connected to telecommunication and signaling networks is A) IEC 62305 B) IEC 61643-21 C) IEC 62304 D) None of these
8.	SIP stands for A) Session Initiation path B) Session Initialization Protocol C) Session Initiation Procedure D) Session Initiation protocol
9.	The duration of an E1 multiframe is _____ milliseconds A) 2 B) 3.9 C) 125 D) 5.9

10.	Accident occurred at out of home station, Medical relief Hooter will sound for 45 seconds _____ times with a gap of 5 seconds. A)One B)Two C)Four D)Five
11.	As per the Telecom Manual -2021, _____ shall be used as the routing protocol for VoIP based Train Control Communication System A) EIGRP B) OSPF C) BGP D) STATIC
12.	Ethernet and RS-232 connectors for NMS are located in _____ card of VMUX-100 A) NIM card B)LPC card C)TME card D)Tributary card
13.	Psophometric voltage is a _____ measurement of noise present on a transmission line across a telephone in millivolts. A) Logarithmic B)Linear C) Indirect D) Reverse
14.	As per the Telecom Manual -2021, Fixed VHF installation must be inspected _____ by JE. A) Monthly B) Quarterly C) Half Yearly D) Yearly
15.	Divisional Disaster Management Plan is available in the form of booklet duly signed by _____ A) AGM B) ADRM C)DRM D)GM
16.	Which one of the following is incorrect related to Electronic LC gate Telephone system as per RDSO/SPN/TC-51/2011 (Rev. 3.0) (i) Electronic LC gate phone has one master and six slaves phones (ii) Power supply for slave phones can be either extended from Station or locally fed (iii) Power supply is 12V DC for master phone and 24V DC for slave phones (iv) Voice logging facility is available in both master and slave phones (v) DTMF signalling code is used to achieve independent LC gate communication from station A) (ii) B) (iii) C) (iv) D) None of the above
17.	In VHF communication the frequency assigned for Accident Relief Train and Guard - Driver communication are: A) 146.400 MHZ and 160. 400MHZ B) 146.200 MHZ and 160.450MHZ C) 147.975 MHZ and 161.150MHZ D) 149.750 MHZ and 162.100MHZ
18.	How many bits are there in an IPV4 and IPV6 address respectively? A) 16 & 32 B) 32 & 64 C) 32 & 128 D) 64 & 128
19.	Modem pair required for WAN connectivity over leased lines are A) Synchronous V.35 +V.35 B) Synchronous V.35 + G.703 C)Synchronous G.703+G.703 D) Asynchronous V.35 + G.703

20.	In a Cat-6 cable there are ____ twisted pairs. A) 4 B) 6 C) 2 D) 8
21.	Network that is not bundled along with Control Office Application is A) Coach Management System B) Crew Management System C) Parcel Management System D) Block Management System
22.	Which of the following related to installation of earthing arrangement for S&T equipments, is incorrect A. Avoid made up soil and rocky area B. Choose the nearby low lying area C. Trace the cable before finalizing the location to avoid cable cut D. Earthing value does not depend on soil resistivity
23.	In VMUX-100 maximum of _____ conferences can be configured as 4-party A)18 B) 30 C) 12 D) 08
24.	Telecom cables shall be laid in _____ pipes for a length of _____ meters on either side of TSS A) GI and 300 B) RCC and 300 C) GI and 200 D) RCC and 200
25.	_____ is a client-server program that provides an IP address, subnet mask, IP address of a router, and IP address of a name server to a computer. A) ISP B) NAT C) CIDR D) DHCP
26.	Which of the following are maintenance steps of earthing arrangement for Telecom system i. Watering earth pit regularly ii. Checking the earthing connections and cleaning iii. Meggering in once in six months (Dry & wet season) iv. Adding of earth enhancement compound, wherever required v. Installing additional earth pit, where earth value is high vi. Painting of earth value and date of measurement A) i to iii only B) i to v only C) All of the above D) None of these
27.	The loss offered by a fusion splice of optic fibers shall not exceed ____ dB under any circumstances. A)0.002 B)0.02 C)0.2 D)2.5
28.	What is the Railway exchange STD code of Southern Railway? A)040 B) 050 C) 060 D) 070

29.	Precautions to be taken while working in 25 KVA OHE system (i) Wearing Electrical insulated Safety Shoes (ii) Wearing of insulated gloves (iii) Using tools with insulated handles (iv) Going near to live wire A) (i) & (ii) B) (i), (ii) & (iii) C) All of the above D) None of the above
30.	As per guidelines, the CCTV footage and alarms should stored for minimum for ____ days A) 15 B) 20 C) 30 D) 45
31.	The IEEE standard for 1000 BASE-T (Gigabit Ethernet) is A) IEEE 802.3u B) IEEE 802.3z C) IEEE 802.3ab D) IEEE 802.11a
32.	On each side of minor bridge a cable reserve of _____ meters to be provided A) 4 B) 7 C) 6 D) 5
33.	As per the Accident Manual-2022, the target time of turning out the Medical Relief van at stations where it is stabled on a siding with exit from both ends is <i>during day time</i> A) 20 minutes B) 25 minutes C) 30 minutes D) 45 minutes <i>J. Yash</i>
34.	In closed area, ____ type of speakers are used A) Box type B) 15W horn type C) 25Watt horn type D) None of them
35.	In PD-MUX, a control circuit is configures in which mode A) Point to point B) Conference C) Semi-conference D) All of these
36.	Standard Drum length of 6Quad cable is _____ A) 1.5Km B) 2Km C) 1000m D) 3Km
37.	Redundant array of independent disks used in IP based CCTV surveillance system has the storage capacity in _____ A) Giga byte B) Tera byte C) Kilobyte D) Mega byte
38.	_____ converts acoustic energy in to electrical energy A) Speaker B) Amplifier C) Rectifier D) Microphone
39.	Base station (25Watt) VHF receiver sensitivity is A) 25microvolt B) 15microvolt C) 0.25microvolt D) 10microvolt
40.	The following registers are to be maintained for each contractual work: (i) Daily Progress Register (ii) Material Transaction Register <i>(ii) (i)</i> Site order book (iv) Hindrance Register A) Only (i) & (ii) B) Only (i), (ii) & (iii) C) All the above D) None of these
41.	The operating voltage and current of the Control Voice logger are _____ and _____ A) 24VDC & 2 Amp B) 12VDC & 2 Amp C) 12VDC & 1 Amp D) 24VDC & 1 Amp

42.	_____ Connectors are used to connect control voice channels to the voice logger. A) RJ11 B) RJ45 C) RS232 D) RS485
43.	The impedance ratio of the signal transformer used for Block circuit is _____ ohms. A) 470:1120 B) 1120:1120 C) 470:470 D) 600:600
44.	As per RDSO Specification No. RDSO/SPN/TC/108/2019, Ver. 1.0, the Platform Data Controller shall drive A) Platform display boards, B) At-a-glance display boards C) Coach guidance display boards D) All the above
45.	Optical power meter has got the option for displaying optical power in _____ A) dBm or Micro watt B) dBm only C) Micro watt only D) dBm or pW
46.	Surges voltage and current are _____ than the working voltages and currents A) Very low B) Lower C) Equal D) Higher
47.	Minimum _____ numbers of walkie-talkies with 100% spare batteries are to be available in ART A) 10 B) 15 C) 30 D) 20
48.	Which are Salient features of IP based CCTV surveillance system as per RDSO specification No. RDSO/SPN/TC/65/2021 Rev.6: (i) Provision of Panic Button(s) at stations to send alarm to central location (ii) The system shall be based on non-proprietary open architecture (iii) IP cameras, NVR and software shall be complaint to ONVIF standards for interoperability (iv) Artificial Intelligence based Video Analytics and Face Recognition software A) All the above B) (i), (ii) & (iv) C) (i), (ii) & (iii) D) None of the above
49.	What type of signalling used in ISDN Exchanges? A) E&M B) Loop C) CAS D) CCS7
50.	If receiver fails in any telephone instrument than what is fault A) No outgoing speech B) No ringing C) No incoming speech D) None
51.	The material used for conductor in telecom cables is high conductivity_____. A) Insulated copper B) Annealed copper C) Silver coated copper D) Aluminium coated copper

52.	<p>Which of the following are good maintenance practices of VRLA battery bank</p> <ul style="list-style-type: none"> (i) Use torque wrench to tighten the terminals to recommended value (ii) Discharge monthly for two hours and record the battery voltages (iii) Boost charge voltage should be less than 2.3Volt (iv) Using anti corrosive gel on the terminals <p>A) All of the above B) (i) & (ii) C) (i), (ii) & (iii) D) None of these</p>
53.	<p>Which one of the following abbreviation expansion(s) is not correct</p> <ul style="list-style-type: none"> i. TCCS –Train Control Communication System ii. SCADA – Supervisory Control and Data Acquisition iii. IP-MPLS – Internet Protocol-Multi Protocol Label Switching iv. LTE – Long Term Evolution v. ONVIF- Open Network Video Interface Forum <p>A) (i) B) (i) & (iii) C) iii D) None of these</p>
54.	<p>The PRS server at _____ is now working as Disaster recovery (DR) server</p> <p>A) Delhi B) Mumbai C) Secunderabad D) Chennai</p>
55.	<p>The advantages of Asterik software based exchange is</p> <ul style="list-style-type: none"> A) It is an open-source software and can be implemented on existing Railnet Network. B) Integration with existing Non-IP Telephone Exchanges and devices is possible. C) Supports all IP Protocols for voice transmission and all Telephony Features. D) All of the above
56.	<p>Steps to avoid the cable cuts</p> <ul style="list-style-type: none"> i) Tracing of cables using Cable route tracers ii) Updation of cable route plans iii) Carrying out Survey before permitting excavation work iv) Clear marking of existing cable route with peg marks and powder v) Using RFID markers vi) GIS/GPS based cable route drawings vii) Ensuring cable markers availability by periodical renewal of damaged markers viii) Burying warning tapes in the trench at certain level above cables ix) Attending to exposed cables or joints <p>A) i) to iv) B) i) to vii) C) All of the above D) None of the above</p>

57.	Match the following tools and their purpose correctly: a. Optical Power meter i) Insulation of copper cable b. TMS Kit ii) Optical power c. OTDR iii) Loss in OFC cable and faults d. Cable megger iv) Transmission loss of Copper cable A) a- iii, b- i, c-ii d- iv B) a- iii, b- i, c-iv d- ii C) a- ii, b- iv, c-iii d- i D) a- ii, b- iv, c-ii d- i
58.	Full form of NDMA is A) National Development Ministerial Authority B) National Disaster Management Authority C) National Disaster Management Agency D) None of the above
59.	Which of the following is not correctly grouped: A) Power BI B) Tableau C) Qlik Sense D) Excel
60.	Which of the following is incorrect regarding the FRS server requirements as per RDSO specification No. RDSO/SPN/TC//65/2021 version 6.0: i) It shall be of minimum 16 cores in Single Processor ii) RAM memory size should be of 32 GB or higher iii) GPU card should be available. iv) Minimum of 4 number of cameras should be connected to one server. A) All of the Above B) only i & ii C) only i, ii & iii D) None of the above
61.	As per Indian Railways Schedule of Dimensions (Revised 2022), minimum horizontal distance from centre line of track to column, lamp or similar isolated structure such as CCTV/CGDB poles & fixtures from 305mm above platform level to 3705mm above rail level on passenger platform is A) 2135mm B) 2360mm C) 4720mm D) 6250mm
62.	The maximum length of RS485 cable used in IPIS should be _____ A)1200m B) 1000m C) 500m D) 15m
63.	Accounts department stock verification for stores with imprest holder are checked once in A) 3 years B) 2 years C) 1 year D) Six months
64.	_____ shall provide Ethernet and optical connectivity for data communication between both CPUs of CDC and Display boards A) Central Data Switch B) RMS Server C) PDC D) None of these

65.	Which of the following is/are good cable management practice at station buildings (i) Using cable troughs and cable trays (ii) Tagging/labelling of cables (iii) Using cable glands and multi cable transit wherever required. (iv) Laying of cables neatly, securing cables with cable ties and filling up of holes using silica gel etc., (v) Documentation of cable layouts, connections and termination details (vi) Releasing of old and unwanted cables A) (i) & (ii) B) (i) to (iii) C) (i) to (iv) D) All of the above
66.	Remote Control circuit is used for _____ system A) Control communication B) SCADA C) Datalogger D) Traction Loco
67.	In digital cable fault locator, _____ mode is used to find out open/ short circuit fault? A) Low insulation B) Insulation resistance C) Pulse echo reflection D) Foreign potential
68.	_____ display boards of IP based IPIS system displays the coach composition of the train? A) At a Glance B) Coach Guidance C) Platform D) None of these
69.	As per RDSO/SPN/TC/107-2018 Ver. 2.1, Specification for VHF Sets to be used on Indian Railways stipulates the Li-ion/Ni-MH battery should have a capacity of A) 2200mAh B) 3200mAh C) 2300mAh D) 3300mAh
70.	What is the size of "1U" in a standard telecommunication rack? A) 1.75 CMs B) 2.54 CMs C) 3.75 CMs D) 4.45 CMs
71.	To test the IP stack on your local host, which IP address would you ping?..... A) 255.0.0.0 B) 1.0.0.127 C) 127.0.0.1 D) None of these
72.	The fibre connector used to connect STM-16 equipment is a A) Standard connector B) Lucent connector C) Ferrule connector D) Rack connector
73.	Class B SPDs are to be provided between: A) Neutral & earth B) Phase & neutral C) Phase & earth and phase & neutral D) phase & neutral and Neutral & earth
74.	RCC cable markers shall normally be provided at a distance of every ----- meters in station area A) 20 B) 25 C) 30 D) 50
75.	The following are the main components of GPS clocks: (i)GPS receiver (ii) Power Supply Unit (iii) LED display unit (iv) Real Time Clock A) (i) & (ii) B) (i), (ii) & (iii) C) All of the above D) None of the above

76.	STP cable is used for A) PA system wiring B) Auto phone connection C) Selective calling phone D) IB phone connection
77.	Maximum loop resistance of 0.9mm dia 6 quad cable is ___ ohms A) 28 B) 56 C) 64 D) None of these
78.	An L2 switch transfers the packets/frames to destination based on _____ A) IP address B) MAC address C) Both IP & MAC address D) Broadcasting of packets
79.	Railway control communication circuits are of _____ type circuits A) Point to point B) Party to line C) Omnibus D) All the above
80.	The principle of OFC working is _____ A) Total internal reflection B) Reflection C) Refraction D) Diffraction
81.	Tools required for crimping CAT6 cable and testing are: (i) RJ45 plugs (ii) RJ45 crimping tool (iii) Wire cutter (iv) Wire stripper (v) LAN tester A) All of the above B) (i), (ii), (iii) C) (i), (ii), (iii), (iv) D) None of these
82.	In a VSS, ONVIF _____ defines interoperability between Video Management Software/NVR and SD (memory) Card in the Camera. A) Profile 'E' B) Profile 'F' C) Profile 'G' D) Profile 'H'
83.	Insulation resistance of quad cable shall be tested with _____ Insulation Tester after completion of initial jointing of cables in a block section: A) 500 V B) 100 V C) 200 V D) 50 V
84.	As per the Telecom Manual -2021, Emergency telephone socket posts shall be painted with alternatively A) Black and White paints of 15 cms strips B) Black and yellow paints for 20cms strips C) Yellow and white paints for 15cms strips D) Red and Black paints for 20cms strips

85.	<p>What are the passenger amenities provided by the Telecom Department at stations:</p> <p>(i) PA announcement System (ii) Train Information Display Boards (iii) GPS Clocks (iv) Wifi (v) Signages (vi) Lifts and escalators</p> <p>A) All of the above B) (i), (ii) & (iii) C) (i), (ii), (iii) & (iv) D) (i), (ii), (iii), (iv) & (v)</p>
86.	<p>In webfill mux, the station ID is set in which module?</p> <p>A) NIM B) Tributary C) Motherboard D) Subscriber</p>
87.	<p>Which of the following related to IP Based Integrated Passenger Information System (IPIS) RDSO/SPN/TC/108/2019, Ver. -1.0 is/are incorrect:</p> <p>(i) Central Data Switch (CDS) provides Ethernet and optical connectivity for data communication between both CPUs of CDC, PDC and Display boards (ii) Platform Data Controller shall drive Platform display boards, At-a-glance display boards and Coach guidance display boards. (iii) Remote Monitoring Server facilitates, remote monitoring of the IPIS system (iv) It is integrated with NTES but not with Common Alerting Protocol (CAP) based Integrated Alert System</p> <p>A) None of the above B) Only (iii) and (iv) C) Only (iii) D) Only (iv)</p>
88.	<p>_____ mic is suitable for outdoor meetings.</p> <p>A) Condenser B) Dynamic C) Carbon D) Universal</p>
89.	<p>DMTR should be verified and signed by store in charge SSE</p> <p>A) Once in week B) Once in fortnight C) Once in month D) Once in year</p>
90.	<p>PAC means?</p> <p>A) Party Assurance certificate B) Proprietary Article certificate C) Private Article certificate D) Preparatory Assurance certificate</p>
91.	<p>Normal notice period for calling open tenders?</p> <p>A) 30 Days B) 45 Days C) 21Days D) 14 Days</p>
92.	<p>Non performing contract can be terminated after issuing and notice?</p> <p>A) 21 days & 48 Hrs B) 15 days & 24 Hrs C) 15 days & 48 Hrs D) 7 Days & 48 Hrs</p>
93.	<p>PME after 45 years upto 55 years</p> <p>A) 5 years B) 3 years C) 2 years D) 1 year</p>
94.	<p>An employee works 42 hours per week and with 30 consecutive hours of rest comes under</p> <p>A) Excluded B) Intensive C) Essential Intermittent D) Continuous</p>
95.	<p>Commissioner of Railway Safety (CRS) belongs to the ministry of</p> <p>A) Railways B) Labour C) Civil Aviation D) Surface Transportation</p>

96.	Identify the incorrect statement A) Anticipated vacancies for next 12 months are considered for non-selection post B) Option can be exercised within One Month for fixation of pay on promotion C) For Group 'C' selections, the minimum residency period in lower grade is 2 years of Continuous service D) If employee refuses promotion, he will be debarred from promotion for a period of 24 months
97.	Time limit for submission of claim of travelling allowance (TA) is _____ days succeeding the date of completion of journey? A) 30 B) 60 C) 90 D) 120
98.	All representations against adverse remarks in APAR should be submitted within _____ from the date of receipt of APAR A) 10 days B) 15 days C) 30 days D) 60 days
99.	Who is the competent authority to permit changes in HOER classification? A) Principal Chief Personnel Officer B) General manager C) Divisional Railway manager D) Senior Divisional Personnel manager
100.	Who is the competent authority to approve 3 rd chance to ward/widow for appointment on compassionate ground? A) GM B) AGM C) PCPO D) DRM
101.	Which of the following languages is not listed in the 8th schedule of the Constitution? A) Mythili B) Bhojpuri C) Santhali D) Bodo
102.	Which of the following is true for Region B as per the Official Language Rules. A) It includes 4 states out of which one is Chhattisgarh B) 4 states and 3 UTs C) 3 states and 3 UT D) Tamil Nadu is in Region B
103.	What is the expansion for OLIC used by Department of official language A). Official Language Implementation Council B). Official Language Implementation Committee C). Official Language Implementation Commission D). None of the above
104.	Who prepares the Annual Programme on Official Language? A) Ministry of Education B) Ministry of Finance C) Ministry of Home Affairs D) Ministry of Railways

105.	Which part of the Constitution contains provisions regarding Official Language A). Part XVII (B). Part XVI (C). Part VII (D). Part XII
106.	What is the period for holding the meetings of the Official Language 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
107.	Which of the following statements is/are incorrect regarding "Rajbhasha Gaurav Puraskar Yojna" by Department of official language i) Author /co author can be Citizen or non-citizen of India ii) This award will be given for original/translated book in Hindi iii) This award will be given only for original book written in Hindi iv) The subjects should be on Knowledge , science based, forensic science, police, Criminology Research, Police Administration, Culture, Religion, Arts, Heritage and in the field of Law. A) i B) ii C) iv D) i & ii
108.	When will an employee become eligible for Cash Award after passing Regular Hindi Examinations? A) get above 35% in written B) get above 45% in written C) get above 55% in written D) get above 60% in written
109.	Who was the Chairman of the Committee of Parliament on Official Language in 1976? A) Sri. Govind Vallabh Pant B) Sri Charan Singh C) Sri. B G Kher D) Sri. Om Mehta
110.	How many Loksabha and Rajya Sabha members shall be there in the Parliamentary Committee on Official Language? A) 10 and 20 B) 15 and 15 C) 20 and 10 D) 20 and 20

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