

Sample Multiple Choice Question Bank for Selection of ASTE (Group 'B')-70% Quota

1.	The telecommunication network consists of _____ A) Switching B) Transmission C) Stations D) All of the above
2.	The most widely used universal gates are. (A) OR and AND gates (B) NOR and NAND gates (C) NOR and AND Gates (D) NAND and OR gates
3.	Frequencies allotted for Tetra based communication systems are _____ bands. (A) 260-300 MHz & 410-430 MHz (B) 380-400 MHz & 410-430 MHz (C) 260-300 MHz & 380-400 MHz (D) 160 to 260 MHz and 290 to 390 MHz
4.	Universal Emergency Communication (UEC) Operates on _____ frequency. (A) 196.23 - 456.56 MHz (B) 159.6 - 162.45 MHz (C) 260.2 - 300.45 MHz (D) 146.2 - 151.45 MHz
5.	Full form of TETRA is _____ (A) Telecom terrestrial Radio (B) Terrestrial Trunk Radio (C) Train emergency trunk Radio (D) Telecom testing Radio
6.	The error of an instrument is normally given as a percentage of. (A) Mean value(B) Measured value (C) RMS value (D) Full scale value
7.	A voltmeter using a 50 micro ampere meter has a sensitivity of. (A) 20 Kilo ohms per volt (B) 20 00 ohms per volt (C) 20 Mega ohms per volt (D) 50 Kilo ohms per volt
8.	CCITT stands for. (A) Consultative committee for International Telephony and Telegraphy (B) Consultative committee for Indian Telephony and Telegraphy (C) Consultative committee for Indian Telecommunication and Telegraphy (D) Consultative committee for International Telephony and Telecommunication
9.	Which of the following meter has a linear scale. (A)Hot wire meter (B) Thermocouple meters (C)PMMC meter (D) Moving Iron meters
10.	In a measurement system the transducer is the (A) Signal conditioning device (B) Processing device (C) Input element (D) Output element
11.	ITU stands for (A) International Telegram Union (B) International Telecommunication Union (C) Indian Telecommunication Union (D) International Telephony Union
12.	33dBm is equal to. (A) 4 watts (B) 6 watts (C) 2 watts (D) 8 watts
13.	A Megger is usually.

	(A) A moving iron type instrument (C) Moving coil type instrument	(B) Electrostatic type instrument (D) hot wire type instrument
14.	Data Network Analyzer is basically a (A) Protocol Analyzer (C) Packet Analyzer	(B) Protocol Analyzer, Packet Analyzer & Sniffer (D) Sniffer
15.	Spectrum analyzer examines the Spectral composition of EM waves consisting of the following wave forms. (A) Electrical	(B) Optical (C) Electrical, Optical & their power waveforms (D) Power
16.	Spectrum analyzer are used to examines the following characteristics of unknown signals. (A) Carrier levels, Side bands & Harmonics & Phase Noise (B) Side bands and Harmonics (C) Phase Noise (D) Carrier levels	
17.	Frequency counters used for Microwave applications are of (A) Reciprocal method type (C) Heterodyne method type	(B) Direct method type (D) None of above
18.	Two number of 8 Ohms resister connected in parallel, the resultant value is. a. 8 Ohms c. 4 Ohms	b. 16 Ohms d. 64 Ohms
19.	Telecom switch board cables are used for (A)Indoor telecom wiring (C) Electrical switch board wiring	(B) Underground telecom wiring (D)Outdoor telecom wiring
20.	The characteristic impedance of a switch board cable is (A) 1120 ohms (A) 470 ohms	(B) 600 ohms (D) 500 ohms
21.	Expand UTP cable (A)Unshielded twisted pair (C) Unused twisted pair	(B) Unscreened twisted pair (D) Unusual twisted pair
22.	In general, CAT cables are connected with_____ type of connectors. (A) RJ11 (C) RJ45	(B) RJ9 (D) RJ15
23.	RG 8 cable can be used upto the length of _____. (A) 600mtrs (C) 400mtrs	(B) 800mtrs (D) 500mtrs
24.	What is the colour code of 37th pair in a 50 pair switch board cable _____. (A) Blue & red (C) Slate & white	(B) Orange & red (D) Green & red
25.	RIP stands for. (A) Routing Information Protocol (C) Real-Time Information Protocol	(B) Resolution Information Protocol (D) Routine Information Process
26.	UTP cable that transmits up to 16Mbps is _____ (A) Cat2 (C) Cat3	(B) Cat1 (D) Cat4
27.	TCP/IP stands for. (A) Transmission Communication Process/ Internet Protocol	

	<p>(B) Transmission Control Protocol/ Internet Protocol (C) Transmission Control Process/ Internet Protocol (D) None of the above</p>
28.	<p>RDSO spec. for PIJF telephone Cable is _____ (A) TEC Spec.No:GR/WIR/06/03 of March 2002 (B) IS 434-Part-1/1964 (C) IS-694-Part/1964 (D) IRS-TC:41/97</p>
29.	<p>The number of units in 50 pair cable are _____ (A) 4 (B) 6 (C) 5 (D) 2</p>
30.	<p>The number of units in 100 pair cable are _____ (A) 6 (B) 4 (C) 7 (D) 5</p>
31.	<p>The induction by A.C traction system in Telecom circuits is due to _____ and _____ couplings (A) Electrostatic and electromagnetic (B) Electric and magnetic (C) Electrostatic and galvanic (D) Electromagnetic and transformer</p>
32.	<p>Isolation transformers are introduced at a regular intervals of approximately _____ Kms (A) 19 kms (B) 17 kms (C) 20 kms (D) 10 kms</p>
33.	<p>OTDR stands for. (A) Optical Time Domain Reflectometer (B) Optional Time Domain Reflectometer (C) Optical Time Distance Reflectometer (D) None of the above</p>
34.	<p>RDSO specification of 4/6 PIJF quad cable of 0.9 mm dia conductor is _____ (A) IRS:TC: 30/2005 ver.2 (B) IRS:TC: 50/2005 ver.2 (C) IRS:TC: 40/2005 ver.2 (D) IRS:TC: 30/2015 ver.2</p>
35.	<p>The normal depth of the trench for Telecom Cable is _____ (A) 1.8 metres (B) 1.5 metres (C) 1 metres (D) 2 metres</p>
36.	<p>The standard drum length of 4/6 quad cable is _____. (A) Two kms (B) 460 mtrs (C) One kms (D) 600 mtrs</p>
37.	<p>Telecom cable shall be laid in _____ pipes for a length of _____ on either side of TSS (A) HDPE & 200 mtrs (B) RCC pipes & 300mtrs (C) Troughs & 200 mtrs (D) GI pipes & 200 metres</p>
38.	<p>A cable reserve of _____ meters to be provided at every joint loop (A) 3 mtrs (B) 2 mtrs (C) 5 mtrs (D) 4 mtrs</p>
39.	<p>The widely used cable laying method for U/G cables is (A) Laying in PVC pipes (B) Laying direct in the ground (C) Drawing through ducts (D) Laying solid</p>
40.	<p>Tapping diagram consists of _____ (A) Distance between the tapping (B) Location of each tapping (C) Reasons for each tapping (D) No. of tapping</p>
41.	<p>All new Telecom cables shall be laid close to _____. (A) Near the telecom equipment room (B) Near way station (C) Near the railway boundary (D) Near the track</p>
42.	<p>The impedance ratio of matching transformer used for VF circuits in unloaded quad</p>

	<p>cable is _____</p> <p>(A) 470:1120 Ohms (B) 470:600 Ohms (C) 1120:1120 Ohms (D) 470:470 Ohms</p>
43.	<p>Branch off clip is used for _____ joint only.</p> <p>(A) Loading coil joint (B) Condenser joint (C) Normal joint (D) Derivation joint</p>
44.	<p>DSLAM Stands for _____</p> <p>(A) Digital subscriber line access multiplexer (B) Data subscriber line access multiplexer (C) Digital subscriber line access module (D) Data subscriber line access multiplexer</p>
45.	<p>Purpose of sealant tape in the RTSF kit is _____</p> <p>(A) To wrap the conductors (B) To cover the metallic projections (C) To prevent entry of water (D) To seal the joint</p>
46.	<p>Insulation resistance of quad cable shall be tested with _____ Megger after completion of jointing of cables.</p> <p>(A) 1000 V (B) 100 V (C) 250 V (D) 500 V</p>
47.	<p>In digital cable fault locator, which mode is used to find out open/ short circuit fault _____</p> <p>(A) Insulation resistance (B) Low insulation (C) Foreign potential (D) Pulse echo reflection</p>
48.	<p>A digital circuit that can store a bit is</p> <p>(A) XOR gate (B) Flip flop (C) EX-NOR gate (D) Adder</p>
49.	<p>The purpose of Integrated Cable path diagram is _____</p> <p>(A) To locate the path (B) For carrying out maintenance (C) To carry out tests (D) To protect the cables</p>
50.	<p>A binary number system has how many digit.</p> <p>(A) 0 (B) 1 (C) 10 (D) 2</p>
51.	<p>VLRA Stands for _____.</p> <p>(A) Valve-regulated lead-acid (B) value-regulated lead-acid (C) vacuum-related lead-acid (D) none of these</p>
52.	<p>One of the systems that provide information at station is _____</p> <p>(A) IVRS (B) CCTV (C) Call centre (D) PSTN</p>
53.	<p>One of the System that provide information at Passenger end is _____</p> <p>(A) POET (B) Internet (C) CCTVs (D) Alpha numeric display</p>
54.	<p>LED based electronic Display boards are _____</p> <p>(A) Neither non interactive nor interactive (B) Both interactive and Non interactive (C) Non interactive information systems (D) Interactive information systems</p>

55.	Touch screen systems are also called as _____. (A) Non interactive information systems (B) Indication Terminal (C) Interactive information systems (D) Passenger operated enquiry terminal (POET)
56.	Digital video recorder (DVR) is used in _____ . (A) IP based CCTV surveillance system (B) both in Analog based CCTV surveillance system & IP based CCTV surveillance system (C) Integrated information system (D) Analog based CCTV surveillance system
57.	Redundant Array of independent disks used in IP based CCTV Surveillance system has the storage capacity in _____ (A) Giga bits (B) Kilo bits (C) Tera bits (D) Mega bits
58.	In decimal number system what is MSD. (A) First digit from left to right (B) First digit from right to left (C) Middle Digit (D) Mean of all digit
59.	The Call center fetches the dynamic data such as train arrival/departure information from _____ . (A) NTES server (B) COIS (C) PRS server (D) both from PRS & NTES server
60.	The IVRS is integrated with _____ (A) BSNL/RLY exchange and PRS (B) Surveillance system (C) PRS & BSNL/RLY exchange (D) PRS & NTES data base through servers
61.	When Link fails the PRS system working for _____ (A) 12 Hrs (B) 24 Hrs (C) Not working (D) 72 Hrs
62.	In IPIS the data speed in RS485 cable is _____ (A) 57.6 kbps (B) 4.8 kbps (C) 35.0 mbps (D) 9.6Kbps
63.	The backup for GPS clock is from _____. a. Master Clock b. Common reference time from GPS c. Real time clock d. Slave clock
64.	Boolean algebra $A.A$ is equal to a. A b. $2A$ c. A^2 d. 1
65.	Boolean expression $X+X.Y$ is. a. 1 b. 0 c. X d. Y
66.	SI Unit of Force _____. a. Newton b. watt. c. joule

	d. second
67.	_____ enables to extend the distance of the LAN without any loss of data in Electronic Reservation Chart system. a. LAN Extender b. Modem c. Router d. Hub
68.	Charting server receives Chart data from _____ via railway network. a. PRS server b. Both PRS and NTES servers c. NTES server d. COIS
69.	CRT stands for _____ a. Cathode ray tube b. carbon resistance transistor c. cathode related transistor d. none of the above
70.	In C/10 discharge rate, 10 indicates _____ a. Volts b. Hours c. Constant d. Amps
71.	COIS stands for _____. a. coach operation information system b. crew operation information system c. coach optical information system d. coach operation integral system
72.	HDB3 Stands for. _____. a. High-Density Bipolar order 3 b. High-Domain Bipolar order 3 c. High-Density Bipolar order terminal 3 d. High-Domain Binary order 3
73.	VSAT stands for _____ a. Very Small Available terminal b. Very Small Aperture terminal c. Very Simple Aperture terminal d. Very Short Available terminal
74.	Power plants which have the scope for modular expansion are _____ a. Ferro-resonant b. Thyristor controlled c. Linear d. SMPS
75.	Specification of 48V DC auto/manual battery charger for S&T equipment is _____. a. IRS.TC.72/97 b. IRS.S.86/2000 c. RDSO/SPN/TL/23/99 d. IRS.TC.86/2000

76.	In Automatic Battery charger the output controlling device is _____. a. UJT b. SCR c. IGBT d. BJT
77.	The Bridge rectifier is made of how many Diodes. a. 1 b. 2 c. 3 d. 4
78.	Recommended type of charging for Alkaline cells is _____. a. Constant current & regulated voltage b. Regulated Voltage & Regulated Current c. Regulated current & constant voltage d. Constant current & constant voltage
79.	High rate of charging or discharging leads to problem of _____ in LA acid cell. a. Sulphation b. High density of electrolyte c. Loss of Capacity d. Buckling
80.	The material used for grids in maintenance free Lead Acid battery is _____. a. Lead Peroxide alloy b. Lead Zinc alloy c. Lead Calcium alloy. d. Lead Sulphate alloy
81.	_____ is an instrument used to measure the Specific gravity of electrolyte. a. Hydrometer b. Sp. gravity meter c. Thermometer d. Mass flow meter
82.	During the Lightning the heating of air up to a. 100000 degree Kelvin b. 30000 degree Kelvin c. 300000 degree Kelvin d. 1000 degree Kelvin
83.	Trains movement information of a particular day can be had from _____. a. Control Chart b. Reservation chart c. Telephone Exchange d. Test Room
84.	Power Controller in electrified sections is called as _____ Controller. a. TPC b. Section Controller c. Deputy Controller d. TLC
85.	Efficient utilization of Engine power falls under _____ control. a. Deputy Controller b. Section Controller c. TLC d. TPC
86.	Remote control works on _____ principle. a. SCADA b. PTCC c. WPA d. DTMF

87.	In RE area Emergency Control HQ equipment is provided with _____. a. Traction Power Controller b. Traction Loco Controller c. Section Controller d. Deputy Chief Controller
88.	Type of signalling system suitable for control circuits is _____. a. RD b. E & M c. DTMF d. Loop
89.	Railway control communication circuits are of _____ type circuits. a. Point to point b. Switching c. Party to line d. Omnibus
90.	Which of the following is vector quantity. a. Speed b. Velocity c. Current d. Power
91.	In addition to Control telephone a DTMF _____ is also needed at way stations a. Divider b. Multiplexer c. Decoder d. Encoder
92.	LTE can provide _____ no. of 2-wire telephones. a. 40 b. 20 c. 80 d. 99
93.	4-way amplifier is available in _____ system. a. Overhead line b. Conventional repeaters c. CCEO d. Equalizer type repeater
94.	Auto dialling system is used in emergencies for providing _____ facility at track side. a. Rly. Auto phone only b. BSNL phone only c. Control phone d. Rly. Auto Phone and BSNL phone
95.	SCADA system is operating through _____ control circuit. a. Traction Power b. Traction Loco c. Section d. Remote
96.	Electronic current in a wire is the flow of _____ electrons. a. Free b. Valance c. Bound d. Loose
97.	Master phone of Electronic LC gate system operates on _____ DC supply. a. 48V b. 12V c. 24V d. 3 V
98.	1/1000 of a Milimeter is called a. Micron b. Pico c. Kilo d. Nano
99.	Logic expression of OR gate

	<p>a. Y=A+B b. Y=AB c. Y=BA d. None of above</p>
100.	<p>Logic Expression for AND gate a. Y=A+B b. Y=B+A c. Y=AB d. None of above</p>
101.	<p>Semiconductor material is. a. Positive Temp. Coefficient b. Negative Temp. Coefficient c. Both d. None of above</p>
102.	<p>Computer connectivity to the Voice logger is through_____. a. COM port b. Ethernet port c. USB port d. None of the above</p>
103.	<p>The Tx and Rx frequency used for Mobile train communication between trains and Control centre is_____. a. 1 KHz b. 165.5 MHz c. 338-355 MHz d. 2.4 GHz</p>
104.	<p>In Telephone Exchange, Power supply card is responsible for a. power supply to telephone instruments b. power supply to peripheral and control cards c. power supply for bell circuit d. ringing power supply to subscribers</p>
105.	<p>In Telephony, M.D.F. (Main distribution frame) is a. used for providing protective devices b. connecting exchange output to field cable c. a testing place for physical line parameters d. all the above</p>
106.	<p>In Telephony MOV stands for a. Metal Oxide Varistor b. Metal Oxide Variable c. Move Off Voice d. None of the above</p>
107.	<p>In Telephony, DTMF stands for a. Dual tone mixed frequencies b. Double tone multiplexed frequency c. Dual tone multiple frequencies d. Dual tone multi-frequency</p>
108.	<p>In Telephony the term 'CLIP' stands for a. caller line identity permission b. caller incoming line permitted c. caller inbound line promise d. caller line identity presentation</p>
109.	<p>What is numbering of even and odd shelf of Peripheral shelf unit 6 in Coral Flexicom 6000 ISDN Exchange a. shelf-13, shelf 14 b. shelf-12, shelf-13 c. shelf-2, shelf 3 d. shelf-11, shelf-12</p>
110.	<p>Which of the following has least Noise level.</p>

	<p>a. FET b. BJT c. MOSFET d. Crystal Diode</p>
111.	<p>Which card is Digital tones generator in coral flexicom 6000 ISDN Exchange</p> <p>a. MCP-ATS b. 32 GC c. DRCF d. DTR</p>
112.	<p>Clocking and synchronization of exchange was done by which card in Coral Flexicom 6000 ISDN Exchange</p> <p>a. DTR b. MCP-ATS c. 32GC d. DRCF</p>
113.	<p>Hyper terminal default bit rate for accessing coral flexicom 6000 ISDN Exchange is</p> <p>a. 9600 Bytes b. 9600 Kbps c. 9.6 bits d. 9600 bits</p>
114.	<p>which of the items below is not a good conductor.</p> <p>a. Electrolytes b. Ionised gases c. Silicon d. Silver</p>
115.	<p>. What is the nominal working voltage for ISDN exchanges</p> <p>a. 50V dc b. -52V dc c. 54V dc d. -48V dc</p>
116.	<p>Which is the service card in coral flexicom 6000 ISDN Exchange</p> <p>a. TEM b. DTR c. SA d. SFT</p>
117.	<p>In Exchange FXS means.</p> <p>a. Far Exchange Subscriber b. Foreign Exchange Subscriber c. Foreign Exchange Sub-rack d. None of the above</p>
118.	<p>A MOSFET is sometimes called _____ FET.</p> <p>a. Open Gate b. Shorted gate c. Metallic gate d. Insulated gate</p>
119.	<p>When will be the output of a NOT gate is high</p> <p>a. The input is high b. The input is low c. The input is high and low d. None of the above</p>
120.	<p>In a Exchange, If the dialled number is found busy, we can opt for</p> <p>a. call forward</p>

	<p>b. call reminder c. call back or camp on d. call transfer</p>
121.	<p>How many semiconductor layer of DIAC has a. 2 b. 4 c. 1 d. 5</p>
122.	<p>Which of the following groups consist of only output devices. a. Scanner, Printer, Monitor b. Keyboard, Printer, Monitor c. Mouse, Printer, Monitor d. Plotter, Printer, Monitor</p>
123.	<p>What does HTML Stands for. a. Hyper Test Machine Language b. Hyper Text Markup Language c. Hyper Text Markup Link d. Hyper Test Machine Link</p>
124.	<p>FTP Stands for a. File Translate Protocol b. File Transit Protocol c. File Typing Protocol d. File Transfer Protocol</p>
125.	<p>SDP in SIP Protocol means a. Session description packet b. Session development point c. Session description protocol d. Session description port</p>
126.	<p>WLL is also called as _____ a. Radio in the loop (RITL) b. Radio in the Loop and Fixed Radio access c. Fixed -Radio access and Mobile station d. Fixed-radio access (FRA)</p>
127.	<p>In a Cluster of Cells the Main Transmitter Receiver and Antenna System(BTS) is located at _____ . a. it depends on site condition b. on the edge of the cell c. at the Centre of the Cell d. at the vertex of the cell</p>
128.	<p>Full form of ETSI is _____. a. Electronics and Telecommunications Standards Institute b. Engineering & Technology Standards Institute c. European Technical Standards Institute d. European Telecommunications Standards Institute</p>
129.	<p>The channel spacing in GSM-900 technology is a.220 KHz. b.200 KHz. c.180 KHz. d.150 KHz.</p>

130.	<p>_____ network is a collection of many separate networks globally.</p> <p>a. WAN b. An intranet c. Internet d. LAN</p>
131.	<p>Data flow between two devices, in _____ mode occurs in both directions simultaneously</p> <p>a. half-duplex b. full-duplex c. simplex d. semi-duplex</p>
132.	<p>Mail services are available to network users through the _____ layer.</p> <p>a. Data link b. Transport c. Physical d. Application</p>
133.	<p>.In _____ encoding, we use three levels, positive, zero, and negative.</p> <p>a. Triple polar b. Unipolar c. Bipolar d. Polar</p>
134.	<p>What is the hexadecimal equivalent of the Ethernet address 0101 1010 0001 0001 0101 0101 0001 1000 1010 1010 0000 1111</p> <p>a. 5A-11-55-18-AA-0F b. 5A-88-AA-18-55-F0 c. 5A-81-BA-81-AA-0F d. 5A-18-5A-18-55-0F</p>
135.	<p>The shortest frame in HDLC protocol is usually the _____ frame.</p> <p>a. Administrative b. Supervisory c. Information d. Management</p>
136.	<p>When data and acknowledgment are sent on the same frame, this is called _____.</p> <p>a. Piggy backing b. A good idea c. Piggy packing d. Back packing</p>
137.	<p>HDLC is an acronym for _____.</p> <p>a. High-level data link control b. Host double-level circuit c. High-duplex line communication d. Half-duplex digital link combination</p>
138.	<p>RIP is based on _____.</p> <p>a. Distance vector routing b. Path vector routing c. Link state routing d. Dijkstra's algorithm</p>

139.	Dijkstra's algorithm is used to _____. a. Create a link state database b. Flood an internet with information c. Create LSAs d. Calculate the routing tables
140.	In which type of switching do all the packets of a message follow the same channel path a. Hit less switching b. Virtual circuit packet switching c. Message switching d. Datagram packet switching
141.	_____ 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. CIDR c. DHCP d. NAT
142.	Given the IP address 18.250.31.14 and the subnet mask 255.255.0.0, what is the subnet (network) address a. 18.9.0.14 b. 18.0.0.14 c. 18.250.0.0 d. 18.31.0.14
143.	Identify the class of IP address 191.1.2.3. a. Class C b. Class A c. Class D d. Class B
144.	Wireless LAN RF band used for WLAN is a. 0.4 GHz b. 1.6 GHz c. 1.2 GHz d. 2.4 GHz
145.	Railnet is a a. Internet b. Piconet c. Extranet d. Intranet
146.	Connectivity of Railnet backbone is _____ a. Dialup lines b. Dedicated leased lines c. BSNL/VSNL isdn lines d. MPLS/RCIL
147.	The registered domain of Railnet is _____ a. railnet.gov.in b. railnet.org c. railnet.in d. railnet.com
148.	IP Addressing scheme for Railnet is a. Multicast b. Public c. Private d. Reserved
149.	NETS (Network Terminal Server) is a a. 3-in-1 (router, switch and terminal server)

	b. Switch c. Router d. Terminal Server
150.	The PRS network is operated through _____ nos. regional centres. a. 1 b. 4 c. 3 d. 5
151.	Applications in UTS are divided into _____ modules a. ticketing subsystem b. fare c. ticketing subsystem, fare and UDM/TDM d. UDM/TDM
152.	The main objective of UTS in Indian Railway is to provide. a. reserved tickets b. flight booking c. Freight booking d. un reserved tickets
153.	UTS Application is developed by using a. UNIX. b. Sybase, C++, UNIX c. Sybase d. C++
154.	.Spectrum analyzer is an oscilloscope designed to perform analysis of signal in _____ domain a. Amplitude b. Phase c. Frequency d. Power
155.	PCM system uses _____ as line coding technique. a. HDB3 b. NRZ c. NRZ-M d. CMI
156.	.Transmission loss of optical fiber at a wavelength of 1550 nm is about _____ dB/Km. a. 2.5 b. 25 c. 0.025 d. 0.25
157.	The main drawback of optical fiber as a communication medium is that _____ a. High EMI/EMC b. low attenuation c. tapping is difficult d. high cost
158.	.Optical fibers accept _____ signals only. a. Bipolar b. accepts any signal with out restriction on polarity c. Neither uni polar nor Bi polar d. unipolar

159.	.Multimode fiber is best designed for _____ transmission distances. a. Longer b. very Long c. shorter d. medium
160.	.The Numerical aperture is _____ a. Light amplification capacity b. Light rejecting capacity c. Light emitting capacity d. Light gathering capacity
161.	With reference to fiber optic communication, Inter modal dispersion present in a. cannot be said with given data b. Both SM & MM fibers c. only in SM fibers d. only in MM fibers
162.	Ferules of optic fiber connectors are made of _____ materials. a. metal or ceramic or plastic b. only ceramic c. only metal d. only plastic
163.	Optical sources include_____ a. LEDs and LASERs only b. LASER only c. LASERs, LEDs and APDs d. LEDs only
164.	Reduction in level of power, current or voltage is called a. Attenuation b. Regeneration c. Reluctant d. Reflection
165.	Materials that does not conduct current is. a. Insulator b. Conductor c. Semiconductor d. None of the above
166.	Transistor which is unipolar, voltage controlled and uses an induced electric field to control current is A. FET B. BJT C. Diode D. CMOS
167.	FET stands for A. Field Effect Transistor B. Field Enhanced Transistor C. Filter Enhanced Transistor D. Filter Enhanced Transistor

168.	Immobile positive and negative ions make diode A. n region B. p region C. depletion region D. ground region A.
169.	An unwanted signal in a processing system is called A. error B. virus C. noise D. baud
170.	Higher voltage breakdown in a zener diode is A. avalanche breakdown B. attenuation breakdown C. saturation breakdown D. linear breakdown
171.	A material that conducts electrical current very well is A. insulator B. conductor C. semiconductor D. None of these
172.	. Multimode fiber is best designed for _____ transmission distances. a. Long b. Short c. Very Long d. None of the above
173.	A mirror like almost perfect end face is achieved fusion splicing with the use of _____ tools. a. Cleaver b. Spicer c. Cutter d. None of the above
174.	Regenerators do not cause Noise but Introduces _____. a. Jitter b. Wander c. Both a and b d. None of the above
175.	Rectifiers are used to convert: (a) DC to AC, (b) AC to DC , (c) High voltage to low voltage, (d) Low voltage to high voltage.
176.	Which is not related to DC track circuit - (a) Continuity bond, (b) QTA2/QT2 relays, (c) Glued joint/block joint, (d) GLSR condenser
177.	Which comes under category of Indoor gears: (a) Cutting in relays (b) Signal lamps/LEDs, (c) Track relays, (d) Distribution panel of IPS
178.	Where is Indian Railway Institute of Civil Engineering (IRICEN) located (a) Nasik, (b) Mumbai, (c) Secunderabad (d) Pune
179.	Audio Frequency Track Circuits can be used in a) AC electrified b) DC electrified c) Non- electrified sections d) all of the above
180.	Normal operating/working voltage of LED signal unit is / are -----

	a) 110 volt AC b) 110 volt DC c) 230 AC d) None
181.	SGE type Block instrument can be used in a) Only in Non-RE b) Only in RE c) Both in Non-RE and RE d) Both in Non-RE as well as in RE with some modifications
182.	Solar modules use light energy (photons) from the sun to generate electricity through the a) Photoelectric effect b) Photovoltaic effect c) Both a) and b) d) None of a) and b)
183.	The power supply for track Circuits are taken through which of the following Components / modules of the IPS? a) Rectifier b) DC-DC converter c) Inverter d) Transformer
184.	In AC Electrified section, the type of track circuits used are (a) AC Single Rail (b) AC Double Rail (c) AFTC (b)
185.	Minimum no. of lamps which should remain lit on the route indicator, for Relay to remain in picked up condition. a) 4 Lamps. (b) 5 Lamps (c) 2 Lamps (d) 3 Lamps. b)
186.	Maximum permitted resistance of back contact in DC. Relays Initially is. (a) 05 Ohms (b) 03 Ohms. (c) .04 Ohms. (d) .08 Ohms. (b)
187.	The minimum permissible TSR for Conventional A.C. circuit is. (a) 0.15 Ohms. (b) 0.5 Ohms (c) 0.25 Ohms d) 0.85 Ohms
188.	Insulation resistance of a Glued Joint in dry condition when meggered with 100 DC. Megger is (a) 50 M Ohms. (b) 100 M Ohms (c) 25 M Ohms (d) 160 M Ohms
189.	The Coil resistance of a polarized relay in SGE double line Block Instrument is. (a) 277 Ohms. (b) 140 Ohms. (c) 77 Ohms. (d) 62 Ohms.
190.	Siemens Digital Axle counter system is base on. (A) Track shunt principle, (B) Axle counting principle (C) None (D) Both A & B
191.	In digital axle counter system counting heads are provided at A. The beginning of Axle counter section. B. The end of Axle counter section. C. Both beginning and end of the section. (D. None
192.	In digital Axle counter system incount is equal to outcount than A. Section is indicated as clear. B. Section is indicated as occupied. C. None (D) Both A & B
193.	DAC Axle counter system can be used in A. Straight track detection. B. Point and crossover track detection. C. Both straight and point & cross over track detection. (d) None
194.	In Digital Axle Counter evaluation computer carries out

	A. Evaluates the signals transmitted from the counting head. B. Compares the number of axles counted in and the number of axle counted out. C. Both (A) & (B) (d) None
195.	For preparation of solution for Lead Acid Cell the ratio of acid to distilled water is A) 1:5 B) 2:5 C) 3:5 D) None
196.	Initial Charging of Lead Acid Cell should be continues at least for A) 12Hours B) 20 Hours C) 40 Hours D) 60 Hours
197.	The temperature of Electrolyte in Lead Acid Cell should not be allowed to rise above A)45 degree centigrade B)55 degree centigrade C)65degree centigrade D)70degree centigrade
198.	The period of Initial discharging of Lead Acid Cell should not be less than A) 4 hours B) 6 hours C) 8hours D) 10 hours
199.	Electrolyte prepared for filling in Lead Acid cell for Initial Charging must have specific gravity of A)1.190 +/-0.005 B)1.215+/-0.005 C)1.240+/-0.005
200.	Lead acid batteries to be initially charged should be of A) Same type & any AH capacity B) Same AH capacity & type C) Same AH capacity &Company.
201.	For continuous load, the battery bank should be on A)"FLOAT CHARGE"working B)"TRICKLE CHARGE"working C))"CHARGE DISCHARGE"working
202.	Number of inputs/outputs a VGPIO card can cater is A) 6/6 B) 6/8 C) 8/6 D) 8/8
203.	Number of inputs a VGPI card can cater is A) 8 B) 10 C) 14 D) 16
204.	Number of inputs/outputs a NVIO card can cater is A) 16/16 B) 16/8 C) 8/16 D) 8/8
205.	LED indication showing VGPIO module healthy is A) Red B) Yellow C) Green D) Blue
206.	Communication between CLA and CLLP I/O is A) 128 B) 64 C) 32 D) 16
207.	Centre rod of 6 l cell consists of A) Zinc B) Solid Carbon C) Iron D) Lead.
208.	Powder filled around carbon rod in 6l cell is A) NH4Cl B) CO2 C) MnO2 D) Coal
209.	Capacity of 6l cell is A) 20 AH B) 40 AH C) 80 AH D) 120AH
210.	In IPS, inverters and Ferro-resonant based voltage regulators are provided in A) AC distribution panel B) DC distribution panel C) SMPS panel
211.	IPS is suitable for use with

	A) VRLA batteries (IRS S93/96A) B) Low maintenance batteries (IRS S 88/93) C) Any of these
212.	For non-RE Area, capacity of battery bank provided with IPS has a capacity of A) 120 AH B) 200 AH C) 300 AH
213.	For RE Area capacity of battery bank provided with IPS is A) 120 AH B) 200 AH C) 300 AH
214.	Maximum AC power (Current) required at 230V by IPS in RE Area is A) 6KVA B) 3KVA C) 2.5KVA
215.	Maximum AC power (current) required for IPS designed for MACLS with end cabins is A) 6KVA B) 3KVA C) 2.5 KVA
216.	In IPS, "Start generator" indication is displayed and resettable alarm sounds when A) Battery discharges to 50% B) Battery discharges to 75% C) When incoming power supply fails.
217.	In IPS, System shutdown indication and non-resettable alarm sounds when A) Battery discharges to 70% B) Battery discharges to 90% C) When power supply given to IPS fails.
218.	Positive terminals of batteries, which are to be charged, should be connected to A) Negative terminal of battery charger B) Positive terminal of "LOAD "on charger C) Positive terminal of battery charger
219.	Electrolyte in VRLA cell is absorbed in A) PVC B) Wood C) Absorptive Glass Mat
220.	Negative plate of VRLA cells is A) Lead Cadmium Alloy B) Patented MFX Alloy C) Lead peroxide
221.	VRLA cell supplied by the firm is A) Fully charged B) Partially charged C) Un-charged
222.	In mechanical points in BG, Lock bar is normally below the rail level by A) 38 mm B) 25 mm C) 44 mm
223.	While testing a mechanical point, size of test piece used by S&T Staff is A) 1/8 inch B) 1 inch C) Half inch
224.	In a unit wire detector, maximum throw of point slide is A) 4 1/2 inch B) 3 1/2 inch C) 2 1/2 inch
225.	In semaphore signal, dead space in "B" type spectacle is A) 2 1/2 inch B) 1 1/2 inch C) 3 inch
226.	In signal fitting, burners of signal lamp must be changed at every A) 6 months B) 3 months C) 12 months
227.	Clearance between lock pawl and spectacle lever gear teeth of reverser should not be more than A) 3 mm B) 1 mm C) 5 mm

228.	Minimum working voltage of a reverser is A) 10 V B) 12.5V C) 7.5V
229.	Polarity of reverser coil should be changed once in A) Every six months B) Every month C) Fortnightly
230.	In circuit controller of lever lock 1 number band is always A) In inner side of the circuit controller B) Front side of the circuit controller C) Middle of the circuit controller
231.	For operation of point ,signal or gate a key can be transmitted electrically by means of A) EKT B) Electric Lever lock C) Reverser
232.	Slot indication is given by A) Reverser B) Slot Indicator C) Buzzer
233.	In 25 KV RE Slot circuits are controlled through A) AC immunised Relay B) Non immunised Relay C) Track relay
234.	In luminous type slot indicator rating of used bulb is A) 12 V,24 W B) 12 V,2.4 W C) 12 V,4 W
235.	Load voltage of single solar cell A) 0.85 v B) 0.55 V C) 2V D) None
236.	Solar panel is to be cleaned once in A) 15days B) 30 days C) 45 days D) None
237.	Primary voltage of "I" type current transformer is A) 0.5 V AC B) 110 V AC C) 0.3 V AC
238.	Primary current of "H" type current transformer is A) 2.5 A B) 0.3 A C) 0.5 A
239.	Glow voltage of signal lamp is A) 12 V AC B) 2.3 V AC C) 10.8 V AC
240.	In R E Area, no parts of signal fittings shall fall within A) 0. 2 METERS B) 2 METERS C) 7 METERS
241.	ASR relay in British panel is normally A) De-energised B) Energised C) none
242.	RJPR relay in British panel is normally A) De-energised B) Energised C) none
243.	Track locking in British panel is achieved by A) WCR B) WLR C) WJR
244.	In an universal axle counter system, one of the output of DC-DC converter is A) Isolated 10VDC B) 24VDC C) 60 VDC D) 100VDC
245.	In an universal axel counter system, +10VDC supply of DC-DC converter should be

	adjusted for A) 10.2 VDC B) 11 VDC C) 15 VDC D) None
246.	In Single line token less block instrument push button type Receiving delivery relay is A) TCKR B) RCKR C) CRR D) RDR
247.	Token less Block Instrument used in AC RE area on single line is. A) Daido S/L B/Instt B) PTJ S/L C) Kyosan S/L
248.	By use of Token less Block Instrument section capacity can A) Decrease B) Increase C) None
249.	Carrier frequency of Daido Block instrument is A) 65 Hz B) 85 Hz C) 1800 Hz.
250.	Daido Single Line Block Instrument works on A) Modulated frequency B) DC coding C) None
251.	In 25KV RE Area, as per existing design maximum induced voltage in unscreened cable is A) 35 V / km B) 87.5 V / km C) 116 V / km
252.	In 25KV RE Area, as per revised design maximum induced voltage in double line section is A) 116 V / km B) 35 V / km C) 95 V / km
253.	In 25KV RE Area, in the vicinity of switching station, the distance between the cable and station earthing is A) 5 m B) 0.5m C) 1 m
254.	In 25KV RE Area, value of ballast resistance should not be less than. A) 1 ohm / km B) 2 ohm / km C) none,
255.	In 25KV RE Area, value of rail resistance should not be more than A) 3 ohm/km B) 4 ohm/km C) 1 ohm/km
256.	In 25KV RE Area, protective iron screen should be provided on the signal structure if the signal Fitting falls within A) 2M B) 7M C) none
257.	In 25KV RE Area, in front of mast signal should be provided at a minimum distance of A) 20M B) 10M C) 30M
258.	In 25KV RE Area, minimum height of Red aspect of signal above rail level is A) 3.65M B) 4M C) 2.35M
259.	In 25KV RE Area, as per revised design maximum length of signal control circuit with unscreened cable and 110V power supply on double line is A) 600M B) 1.6KM C) 220M
260.	The microprocessor chip used in Safelock SSI is A) Intel 8085 B) Intel 8086 C) Intel 8088 D) Motorola 68000
261.	In IPS, Status Indication and critical alarms are provided in A) Monitoring Panel in SMs room B) SMPS Panel C) None

262.	For RE Area, normally capacity of battery bank provided with IPS is A) 120 AH B) 200 AH C) 300 AH
263.	For non-RE, Maximum AC power (Current) required at 230 V by IPS is approximately A) 6KVA B) 3KVA C) 2.5KVA
264.	Maximum AC power (current) required for IPS designed for MACLS with end cabins is approximately A) 6KVA B) 3KVA C) 2.5 KVA
265.	Zener diode normally works in A) Forward Bias B) Reverse Bias C) In Both
266.	AC supply frequency in secondary winding of transformer is A)50 Hz B) 60 Hz C) 100Hz
267.	Testing of transformer is done by applying load A) Resistive Load B) Inductive Load C) Both
268.	No output voltage in transformer is due to A) Secondary Coil Open B) Secondary Coil Short C) None
269.	The input voltage of Inverter is A) DC B) AC C) Both
270.	Type of transformer used in DC-DC converter circuit is A) Step Down B) Step up C) None
271.	Pitch is affected by A) Voltage B) Current C) Intensity
272.	Loudness depends on A) Acoustic feedback B) Voltage & type of Amplifier C)Frequency
273.	Impedance of speakers depends on A) Frequency B) Shape of speaker C) Size of speaker
274.	In marshalling yard matching is A) Impedance B) Voltage C) None of them
275.	In voltage matching to connect more number of speakers tapping used is A) 70 volts B) Impedance matching with 16 ohms C) None of them
276.	Gain of amplifier is expressed in A) DBM B) DB C) Watts
277.	Battery backup for PA amplifiers. A) - 48 v B) + 48 v C) + 24 V
278.	Talk back is a type of communication. A) Simplex B) Duplex C) None of them
279.	For open ground type of matching used is

	A) Voltage matching B) Impedance matching C) Both
280.	In closed area type of speakers used are A) Box type B) Horn type C) None of them
281.	Talk back system is used at A) On railway platform B) Marshalling Yard C) None of them
282.	Arrival /Departure indicators are used for A) Mail express train b) suburban train C) both.
283.	FAX Machine in railway is used for sending A) circulars B) Important documents C) Both.
284.	Test which can be given on modem are- A) 4- wire loop B) Digital loop C) Both.
285.	CCTV display A) Live programme B) Video prog. C) Both
286.	In block interfacing equipment Z80 CPU is used for A) Read data from Input B) Power supply C) Amplifier
287.	EPROM stand for A) Erasable Programmable Read only Memory B) Programmable read only memory C) Both A&B D) None
288.	Different types of signals used for train operation are _____ a) Fixed signals b) Hand signals c) Flare/ Detonating signals d) a, b and c
289.	When Distant signal displaying Proceed aspect, it indicates _ to the loco pilot e) Run through on loop line f) Run through on Main line g) Stop and start h) Stop at starter
290.	Where "Distant" and "Inner Distant" signals are provided the Distant shall display aspect. (Ref. 3.07.1 SR -SCR & BD's L.68/W3/SG/5/4 of 5/2/70). i) "Attention" or "Proceed" j) Caution k) only proceed l) a and c

291.	Battery charger of 24V can charge maximum _____ no. of cells. A) 24 B) 12 C) 13 D) 14
292.	Recommended current rating of Battery charger for charging 120AH Lead Acid cell is _____. A) 12 A B) 24 A C) 30 A D) 40 A
293.	For charging of 200 AH cells _____ amp capacity charger is required. (D) A) 20 A B) 24 A C) 30 A D) 40 A
294.	Boost charging voltage of the lead acid cell is _____ A) 2.2 V B) 2.3 V C) 2.4 V D) 2.7 V
295.	Initial charging voltage of the lead acid cell is _____ A) 2.2 V B) 2.3 V C) 2.4 V D) 2.7 V
296.	Float charging voltage of the Automatic battery charger (IRS: 86/200) is adjustable from _____ per cell. A) 2.12 to 2.3 V B) 2.2 to 2.3 V C) 2.12 to 2.4 V D) 2.12 to 2.7 V
297.	Chargers used for Axle counter installations, the r.m.s ripple shall be less than____. A) 10mV B) 50mV C) 100mV D) 200mV
298.	Chargers used for Axle counter installations, the peak to peak noise voltage shall be less than 50mV. A) 10mV B) 50mV C) 100mV D) 200mV
299.	Battery charger working in manual mode, the charger output voltage shall be _____ V per cell. A) 2.2 V

	<p>B) 2.25 V C) 2.3 V D) 2.4 V</p>
300.	<p>Battery charger generates low battery alarm when the battery voltage falls to _____ V per cell. A) 1.95 V B) 2.0 V C) 2.2 V D) 2.25 V</p>
301.	<p>Battery charger generates start DG set non-resettable alarm when the battery voltage falls to 1.90V/cell. A) 1.9 V B) 2.0 V C) 2.2 V) 2.25 V</p>
302.	<p>Battery charger isolates battery from the load when the battery voltage falls to _____ V per cell. A) 2.0 V B) 2.15 V C) 2.2 V D) 1.8 V</p>
303.	<p>What is dod? A) dried out discharge, b)depth of discharge, c)direct observed discharge d)dedicated output discharge.</p>
304.	<p>14. In lead acid cell electrolyte used as diluted – A)HCL B)H₂SO₄ C)CH₃COOH D)HCN</p>
305.	<p>Device that is used for measuring specific gravity of electrolyte is :- A) hypometer b) calorimeter c) hydrometer d) hygrometer</p>
306.	<p>SMR IN IPS MEANS:- a) single mode rectification b) switched mode rectifier c)simple mode resonator d) switched muted rectifier.</p>
307.	<p>Battery bank in IPS is A)120v dc b)110v ac c)110v dc d)24v dc</p>

308.	CVT means – A) continuous voltage transmitter b) constant voltage transformer c) cumulative voltage transformer d) constant voltage transducer.
309.	70% DOD means – A) call s&t staff b) stop generator c) system shut down d) start generator.
310.	For block tele up/dn dc dc converter rating will be – a) 3-6v,0.1a b) 5-6v, 0.1a c) 2-12v, 5a d) 2-10v, 1a
311.	Code life of IPS is – A) 10 yrs b) 12 yrs c) 15 yrs d) 20 yrs
312.	Specification of ELB is – A) RDSO/SPN/150/2004 B) RDSO/SPN/180/2005 C) RDSO/SPN/200/2005 D) RDSO/SPN/180/2004
313.	The height of the boom from rail level shall not be less than A) 0.8M B) 1.2M C) 0.9M D) 1M
314.	Open position of the ELB shall be – A) 70 degree to 75 degree b) 80 degree to 85 degree c) 85 degree to 95 degree d) 80 degree to 89 degree
315.	Boom shall be provided with radium sticker of _____ mm bands of black & yellow A) 200 B) 250 C) 300 D) 350
316.	During power failure ELB can be operated manually by – A) Hand Generator B) By Emergency Crank Handle C) By Rope Pulley Arrangement D) By Providing Inverter
317.	During power failure elb can be operated manually by –

	<p>A) Hand Generator B) By Emergency Crank Handle C) By Rope Pulley Arrangement D) By Providing Inverter</p>
318.	<p>During power failure ELB can be operated manually by – A) Hand Generator B) By Emergency Crank Handle C) By Rope Pulley Arrangement D) By Providing Inverter</p>
319.	<p>Full form of 'TMS' for ELB is – A) Temp Motor System B) Toggle Motor Switch C) Toggle Mode Switch D) Toggling Machine System</p>
320.	<p>Full form of 'LXOCR' is – A) Level Xing Operating Control Relay B) Level Xing Operation Control Relay C) Level Xing Open Cct Relay D) Level Xing Operating Closing Relay</p>
321.	<p>LXOCR TYPE IS – A) QNN1 B) QNA1 C) QBCA1 D) QL1</p>
322.	<p>BLR' MEANS – A) Block Line Relay B) Barrier Line Relay C) Barrier Lock Relay D) Band Lock Relay.</p>
323.	<p>Gear oil for lubrication used IN ELB – A) SAG 90 B) SAE 90 C) SAE 70 D) SAG 95</p>
324.	<p>Friction clutch provides _____ protection to the driving motor of ELB – A) OVERLOAD B) CUT OFF C) UNDERLOAD D) SHORT CCT</p>
325.	<p>_____ controls feed to the motor while closing gate – A) LS2 B) LS1 C) LS3 D) LS4</p>
326.	<p>----- controls the snubbing cct to slow down motor while closing – A) LS1 B) LS2 C) LS3 D) LS4</p>
327.	<p>At the centre of the boom for road traffic one red disc is mounted having _____ mm dia A) 300 B) 400 C) 600</p>

	D) 650
328.	Limit switches ____ & ____ are provided to give feedback indications whether gate is fully open/close – A) LS1 & LS5 B) LS2 & LS3 C) LS4 & LS5 D) LS2 & LS4
329.	Emergency crank handle kept always _____ with emergency gate key (rotary key) A) TIGHTENED B) CHAINED C) SEPERATED D) ROPED
330.	Non interlocked gate is always _____ to road traffic – A) OPEN B) Close C) SEMI OPEN D) SEMI CLOSE
331.	IP of AASTRA EXCHANGE server is: a) 80.0.0.100 b) 80.0..0.101 b) 80.0..0.102 b) 80.0..0.103
332.	FCT Stands for: A) Fix Cellular Terminal B) Full Cellular Terminal C) Faulty Cellular transformer D) Fixed Central Terminal
333.	What are the features of AASTRA MX-ONE EPABX: A) Extension to Extension Call B) Automatic Call Back C) Conference Call D) All of above
334.	AASTRA Exchange can be connected with phones: a) Analog b) Digital, IP c) DECT d) All of above
335.	MX-ONE Manager Suite consists of: a) Manager Telephony System (MTS) b) Manager Provisioning (MP) c) Manager System Performance (MSP) d) All of above
336.	Capacity of AASTRA EXCHANGE is: a)1400 Lines b)1500 Lines c)1200 Lines d)1800 Lines