

151/2023

Maximum : 100 marks

Time : 1 hour and 30 minutes

1. In a four band resistor colour coding, the value of multiplier Orange colour (the 3rd position from the left) is :
(A) 10^2 (B) 10^3
(C) 10^4 (D) 10^5
2. To increase the total resistor value in a circuit, the (fixed value) resistors should be connected in :
(A) Parallel (B) Serial
(C) Parallel and serial (D) Serial and parallel
3. An inductor is an electrical component which is used to :
(A) oppose the sudden changes in current
(B) generate spike
(C) none of the above
(D) all of the above
4. Ripple factor of a half wave rectifier is :
(A) 1.57 (B) 2.12
(C) 1.21 (D) .482
5. Find out the input of a 2 input XOR gate when its output obtained is 1 :
(A) 1 1 (B) 1 0
(C) 0 0 (D) all of the above
6. The high speed communication parts of a mother board belongs to :
(A) North bridge
(B) South bridge
(C) None of the above
(D) All of the above
7. Expansion slots used in computers are :
(A) PCI (B) AGP
(C) CNR (D) All of the above

8. Write the parallel interface :
- (A) USB (B) RS-232
(C) DB25 (D) Fire Wire
9. Select the fastest memory in a computer :
- (A) L1 cache (B) L2 cache
(C) L3 cache (D) main memory
10. Which of the following memory is volatile?
- (A) ROM (B) DRAM
(C) PROM (D) EEPROM
11. One of the following memory can be erased by ultraviolet light :
- (A) ROM (B) RAM
(C) PROM (D) EPROM
12. Write the most suitable statement for Solid State Drives (SSDs)?
- (A) Read contents more quickly (B) Produce less heat
(C) Consume less power (D) All of the above
13. The removable storage which is not randomly rewritable :
- (A) Flash memory (B) Tape
(C) SD card (D) USB Stick
14. Specify which port is available in South bridge of a mother board :
- (A) PS/2 (B) Parallel ports
(C) Serial ports (D) All of the above
15. Normally how many pins are in a SATA power connector?
- (A) 13 (B) 14
(C) 15 (D) 16
16. Specify the one which is not the part of a motherboard?
- (A) Buses (B) AC power connector
(C) CMOS battery (D) Memory slots
17. Peripheral component Interconnect slots are not commonly used for the following :
- (A) NIC card (B) Sound Card
(C) 3d graphics video cards (D) Modems

18. Normally the Firmware is stored in :
- (A) ROM (B) RAM
(C) SRAM (D) CDROM
19. POST is used for :
- (A) testing the software for errors
(B) testing the hardware for errors
(C) testing the operating systems for errors
(D) none of the above
20. Specify the parameters stored on CMOS memory of a computer :
- (A) Date and Time (B) CPU settings
(C) Boot sequence (D) All of the above
21. Specify the biometric input device :
- (A) Fingerprint scanner (B) Retinal scanner
(C) Iris scanner (D) All of the above
22. Write the name of a device which can be used as both input and output device?
- (A) keyboard (B) touch screen
(C) scanner (D) mouse
23. A device which can be used for scanning/reading images into a computer :
- (A) scanner (B) webcam
(C) digital cameras (D) all of the above
24. Specify how a mouse is working :
- (A) motion detection mechanism (B) pressure detection mechanism
(C) none of the above (D) all of the above
25. Specify the name of a device which is not using light for reading the input data?
- (A) Scanner (B) Bar code reader
(C) Joy stick (D) Optical character recognizer
26. Specify the name of an impact printer :
- (A) Dot matrix printer (B) Chain printer
(C) All of the above (D) None of the above

27. Specify the name of an output device which convert the data/signal to sound?
- (A) Speaker (B) Line printer
(C) CRT (D) None of the above
28. Name of an output device which convert the data to an image with different colour :
- (A) chain printer (B) ink jet printer
(C) thermal printer (D) none of the above
29. Name of a page printer :
- (A) chain printer (B) dot matrix printer
(C) laser printer (D) none of the above
30. Name of a multimedia input device :
- (A) Web cams (B) MIDI enabled devices
(C) Digital camcorders (D) All of the above
31. Name of a System Software :
- (A) Compiler (B) PDF Editor
(C) Editor (D) None of the above
32. Specify the name of a software which convert mnemonic operation codes to machine language :
- (A) Compiler (B) Assembler
(C) Interpreter (D) Python
33. Specify the Functions/features of an operating systems :
- (A) Manages and Interacts with Computer Hardware
(B) Resource management
(C) Provides and Manages System Security
(D) All of the above
34. Name of an operating systems produced by Microsoft and Supports Graphical User Interfaces (GUIs) :
- (A) MS Dos (B) Windows
(C) LINUX (D) Zenix
35. Specify the name of an interface between user and kernel of linux operating systems :
- (A) Language translator (B) IDE
(C) Shell (D) Editor

36. Write a DOS command to copy a file named "XY" to "PQ" of the same directory :
- (A) COPY XY TO PQ (B) COPY XY PQ
(C) CP XY PQ (D) MV XY PQ
37. Write a Linux command to display the content of a file named "pq" of the same directory :
- (A) display pq (B) type pq
(C) cat pq (D) dis pq
38. Each partition of a system is divided into one or more :
- (A) directory (B) file
(C) drive (D) none of the above
39. Write the facility provided by Active Directory in a windows server :
- (A) Manage permissions (B) Access to network resources
(C) Domain Services (D) All of the above
40. Write a linux command to provide all permissions (read, write and execute to owner, group and others) to a file named "xy" :
- (A) chmod 444 xy (B) chmod u+r g+w xy
(C) chmod 777 xy (D) chmod 000 xy
41. Write the name of a most suitable document preparation Software :
- (A) Powerpoint (B) Ms Word
(C) Open office Calc (D) Ms Access
42. In Ms Word number of pages of the document is displayed in the :
- (A) Status bar (B) Title bar
(C) Dialog box launcher (D) None of the above
43. How to change the page orientation in Ms Word?
- (A) File -> orientation -> Portrait/Landscape
(B) Page Layout -> orientation -> Portrait/Landscape
(C) View -> orientation -> Portrait/Landscape
(D) None of the above
44. Name of the feature used in MS Word to send the same letter to different addressee :
- (A) Indexing (B) Table generation
(C) Mail Merge (D) None of the above

45. Footer facility of MS Word is used to :
- (A) to draw a boarder to all pages
 - (B) print a message/text to bottom of all page
 - (C) print a message/text to top of all page
 - (D) to insert images
46. Intersection of rows and columns in worksheet is known as :
- (A) cell
 - (B) row
 - (C) column
 - (D) sheet
47. Specify the facility/command used to prevent a user from accidentally or deliberately changing or deleting data of a worksheet :
- (A) Lock sheet
 - (B) Block sheet
 - (C) Protect sheet
 - (D) Pin sheet
48. In Ms-Excel, functions should start with a key :
- (A) ‘
 - (B) =
 - (C) “
 - (D) @
49. Specify the name of an area where the enlarged view of presentation slides displayed one at a time :
- (A) Navigation Pane
 - (B) Notes Pane
 - (C) Status bar
 - (D) Slide Pane
50. Command/menu used to execute slides show :
- (A) Press “F5” Button
 - (B) “From Beginning” option of start slide show
 - (C) “From the current slide” option of start slide show
 - (D) All of the above
51. Which one of the following is not a network simulation tool or software?
- (A) GNS3
 - (B) CISCO Packet tracer
 - (C) MIMO Monitor
 - (D) PRTG Network monitor
52. Which one of the following represent to the Virtual LAN (VLAN) from IEEE 802 project?
- (A) IEEE 802 1Q
 - (B) IEEE 802 1M
 - (C) IEEE 802 1N
 - (D) IEEE 802 1V

53. The maximum speed of Cat 5 Cable in Ether CAT is :
- (A) 10 Mbps (B) 100 Mbps
(C) 1000 Mbps (D) None
54. Which one of the following modular connectors used to connect single telephone line?
- (A) RJ 11 (B) RJ 14
(C) RJ 25 (D) RJ 41
55. The computer network that connects computers/devices within the range of an individual person, that provides a network range within a person's range typically within a range of 10 meters :
- (A) MAN (B) LAN
(C) CAN (D) PAN
56. In ethernet Cable 10Base2, what is mean by Base2?
- (A) Speed of Network Cable (B) Length of Network Cable
(C) Size of Network Cable (D) None
57. Which one of the following is a Topology in computer network?
- (A) Hub (B) Switch
(C) Mesh (D) Router
58. The principle Total Internal reflection used in which one of the communication medium?
- (A) Coaxial Cable (B) OFC Cable
(C) UTP Cable (D) None
59. Walkie - talkie is an example for :
- (A) Full Duplex (B) Half Duplex
(C) Simplex (D) All the above
60. The network device that both modulates and demodulates analog carrier signals for encoding and decoding digital information for Transmitting and Receiving :
- (A) Hub (B) Switch
(C) Bridge (D) Modem
61. The class of given IP address 192.172.272.150 is :
- (A) Class A (B) Class B
(C) Class C (D) None

62. If a class B network on the Internet has a subnet mask of 255.255.240.0, what is the maximum number of hosts per subnet?
- (A) 4094 (B) 1024
(C) 2046 (D) 2048
63. The length of IPv4 address in Byte is :
- (A) 32 (B) 16
(C) 128 (D) None
64. Which of the following ISO-OSI layer which defines Topology in Computer Network?
- (A) Physical Layer (B) Data Link Layer
(C) Transport Layer (D) Network Layer
65. Which one of the following true about HDLC protocols used to transmit synchronous data packets between point-to-point nodes?
- (A) It is a byte-oriented protocol
(B) It is a bit-oriented protocol
(C) It is a message-oriented protocol
(D) It is character-oriented protocol
66. _____ is a network protocol that enables the secure transfer of data from a remote client to a private enterprise server by creating a Virtual Private Network (VPN) across TCP/IP-based data networks.
- (A) HTTP (B) HTTPS
(C) PPTP (D) PPP
67. The address of a class C host is to be split into subnets with a 3-bit subnet number. What is the maximum number of subnets and the maximum number of hosts in each subnet?
- (A) 32 subnets and 6 hosts
(B) 30 subnets and 8 hosts
(C) 8 subnets and 32 hosts
(D) 6 subnets and 30 hosts
68. An organization has a Class B Network and need to form subnet for 30 departments. What would be the appropriate Subnet Mask?
- (A) 255.255.0.0 (B) 255.255.248.0
(C) 255.255.128.0 (D) 255.255.252.0

69. The layer in ISO-OSI, that define physical, mechanical, electrical characteristics of interfaces of communication medium :
- (A) Physical Layer (B) Data Link Layer
(C) Transport Layer (D) Network Layer
70. Data segmentation and reassembly is the responsibility is in the layer of :
- (A) Physical Layer (B) Data Link Layer
(C) Transport Layer (D) Network Layer
71. Which of the following is a Application Protocol in TCP/IP protocol suite?
- (A) Transmission Control Protocol (TCP)
(B) Internet Protocol (IP)
(C) User Datagram Protocol (UDP)
(D) File Transfer Protocol (FTP)
72. How many bits in Fragment offset Field of IPV4 Header?
- (A) 8 bits (B) 16 bits
(C) 13 bits (D) 32 bits
73. What is the Network Address of the IP 194.25.100.10/20?
- (A) 194.25.96.0 (B) 194.25.111.255
(C) 194.25.100.0 (D) 194.25.0.0
74. If you need to download a text document of 25 lines with 80 characters in each line at the rate of 100 pages per second. What is the required bit rate of the channel?
- (A) 1.560 Mbps (B) 2.0 Mbps
(C) 1.6 Mbps (D) 2.5 Mbps
75. In 8B6T line coding scheme what is the average Bandwidth?
- (A) $B = N/8$ (B) $B = 3N/4$
(C) $B = N/2$ (D) $B = N$
76. How many Bytes in a Physical Address?
- (A) 48 (B) 6
(C) 12 (D) 24
77. Advantages of CIDR strategy is :
- (A) Address aggregation (B) Address summarization
(C) Route summarization (D) All of the above

78. Which port is used by TFTP protocol?
 (A) 69 (B) 53
 (C) 20 (D) 67
79. The following is the content of a UDP header in hexadecimal format 124A000D001C001C. What is the source port number?
 (A) 4682 (B) 4268
 (C) 4628 (D) 4286
80. Expand API :
 (A) Applied Programming Interface
 (B) Application Programming Interface
 (C) Auto Programming Interface
 (D) Advanced Programming Interface
81. In computer network, the communication problem solved by using different :
 (A) Protocol (B) Topology
 (C) Servers (D) Client
82. The header length of datagram in IPv4 is :
 (A) 0 to 20 Bytes (B) 0 to 40 Bytes
 (C) 0 to 60 Bytes (D) 0 to 80 Bytes
83. The protocol that used to get email from a mail server :
 (A) FTP (B) TFTP
 (C) TELNET (D) IMAP
84. Which of the following transport layer protocols that used to support electronic mail?
 (A) SMTP (B) IP
 (C) TCP (D) UDP
85. Sort the order in which the following actions take place in an interaction between a web browser and a web server :
 1. The web browser requests a web page using HTTP.
 2. The web browser establishes a TCP connection with the web server.
 3. The web server sends the requested web page using HTTP.
 4. The web browser resolves the domain name using DNS.
 (A) 4,2,1,3 (B) 1,2,3,4
 (C) 4,1,2,3 (D) 2,4,1,3

86. What is the name of Microsoft search engine?
(A) PING (B) BING
(C) EXPLORER (D) FIREFOX
87. DNS Act as :
(A) Distributed hierarchical naming system
(B) Vertical naming system
(C) Horizontal naming system
(D) Parallel naming system
88. Which one of the following is a protocol convertor which used to connect two systems, specifically if the systems use different protocols?
(A) Modem (B) Gateway
(C) Switch (D) Router
89. Which is the protocol among the following that is used for finding from MAC address to Internet address?
(A) ARP (B) RARP
(C) DNS (D) PPTP
90. Which among the following is not a Web Browser?
(A) Firefox
(B) Microsoft Edge
(C) Microsoft Bing
(D) Safari
91. Which among the following is not a type of HTTP request?
(A) GET (B) HEAD
(C) POST (D) None
92. Which among the following is an e-mail protocol?
(A) POP (B) PUSH
(C) DNS (D) FTP
93. _____ is a limits network access between the two security domains, maintains and logs all connections.
(A) Search engine (B) Web browsers
(C) Firewalls (D) Firefox

94. Which of the following application generally does not use TCP?
(A) SMTP (B) FTP
(C) TELNET (D) DNS
95. The transport layer protocols used for real time multimedia, file transfer, DNS and remote access respectively are :
(A) TCP, UDP, UDP and TCP
(B) UDP, TCP, TCP and UDP
(C) UDP, TCP, UDP and TCP
(D) TCP, UDP, TCP and UDP
96. Which of the following is considered as the unrequested commercial email?
(A) Virus
(B) Spam
(C) Malware
(D) None
97. Which of the following is not an antivirus Software?
(A) McAfee
(B) Intego
(C) Bitdefender
(D) None
98. The appeal to Cyber Appellate Tribunal should be filed within a period of :
(A) 60 days (B) 50 days
(C) 45 days (D) 30 days
99. The Child pornography is an offence under IT Act section is :
(A) 67 A (B) 67 B
(C) 67 C (D) 67 D
100. The cyber terrorism is an offence under IT Act section is :
(A) 66 A (B) 66 C
(C) 66 E (D) 66 F

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