

**EXAMINATION PAPER**

**FACULTY : COMPUTER SCIENCE & MULTIMEDIA**

**COURSE : BACHELOR (Hons) OF INFORMATION TECHNOLOGY**

**YEAR/SEMESTER : FIRST YEAR / SEMESTER SECOND**

**MODULE TITLE : COMPUTER NETWORK**

**CODE : BIT124**

**DATE : SEPTEMBER 21-2018, FRIDAY**

**TIME ALLOWED : 3 HOURS**

**START : 01:00 PM FINISH : 4:00 PM**

**Instruction to candidates**

1. This question paper has THREE (3) Section
2. Answer **ALL** questions in Section A, MCQ.
3. Answer **5** questions in Section B, MSAQ.
4. Answer **2** questions in Section C, MEQ.
5. No scripts or answer sheets are to be taken out of the Examination Hall.
6. For Section A, answer in the OMR form provided.

***Do not open this question paper until instructed***

**SECTION A**

**Multiple Choice Questions (30\*1=30)**

1. **The computer network is\_\_\_\_\_\_.**
   1. network computer with cable
   2. network computer without cable
   3. both of the above
   4. none of the above
2. **Which type of physical topology is used by FDDI?**
   1. Bus
   2. Ring
   3. Star
   4. Mesh
3. **FTP stands for:**
4. File transfer protocol
5. File transmission protocol
6. Form transfer protocol
7. Form transmission protocol
8. **Which of the following technology is used by Ethernet system?**
   1. Bus
   2. Ring
   3. Star
   4. Tree
9. **Which of the following are the network services?**
   1. File service
   2. Print service
   3. Database service
   4. All of the above
10. **If all devices are connected to a central hub, then topology is called\_\_\_\_\_\_.**
11. bus topology
12. ring topology
13. star topology
14. tree topology
15. **Which of the following is an application layer service?**
    1. Network virtual terminal
    2. File transfer, access and management
    3. Mail service
    4. All of the above
16. **Which is the main function of transport layer?**
    1. Node to node delivery
    2. End to end delivery
    3. Synchronization
    4. Updating and maintaining routing tables
17. **A group of computers and other devices connected together is called a network, and the concept of connected computers sharing resources is called \_\_\_\_.**
    1. networking
    2. inter-network
    3. inter-connection
    4. computer group
18. **\_\_\_\_ is a set of connecting links between LANs.**
19. CAN
20. WAN
21. CLAN
22. IAN
23. **The \_\_\_\_ elements are specialized computers to connect two or more transmission lines.**
    1. networking
    2. broadcasting
    3. switching
    4. transferring
24. **In \_\_\_\_\_service, each message carries the full destination address, and each one is routed through the system independent of all others.**
    1. connection-oriented
    2. connection-less
    3. service-oriented
    4. service-less
25. **Which of the following is multipoint topology?**
26. Bus
27. Star
28. Mesh
29. Ring
30. **IANA stands for \_\_\_\_\_.**
31. Internet Assigned Numbers Authority
32. Internal Assigned Numbers Authority
33. Internet Associative Numbers Authoritative
34. Internal Associative Numbers Authority
35. **A communication path way that transfers data from one point to another is called \_\_\_\_\_.**
36. Link
37. Node
38. Medium
39. Topology
40. **Information can be represented as a sequence of**\_\_\_\_\_\_.
41. byte patterns
42. characters
43. bit patterns
44. images
45. **Both station can transmit and receive data simultaneously in\_\_\_\_\_\_.**
46. simplex mode
47. half duplex mode
48. full duplex mode
49. none of Above
50. **In star topology if the central hub goes down, it effects\_\_\_\_\_\_.**
51. one node
52. no node
53. whole system
54. don't know
55. **Find the parity bit for 1011011.**
56. 0
57. 1
58. 2
59. None of Above
60. **If the value of checksum is 0, then the message is\_\_\_\_\_\_.**
61. accepted
62. rejected
63. sent back
64. resend
65. **CRC stands for\_\_\_\_\_\_.**
66. combine resistance check
67. cyclic redundancy code
68. combine redundancy code
69. cyclic redundancy check
70. **Your boss is concerned about security on your network. She wants to make sure that no one can identify passwords if they happen to view a configuration on your router. What command will encrypt all passwords on your router?**
71. Router1#service password-encryption
72. Router1(config)#service password-encryption
73. Router1#enable secret password
74. Router1(config)#enable secret password
75. **The domain name system is maintained by­­­\_\_\_\_\_\_.**
76. distributed database system
77. a single server
78. a single computer
79. none of the mentioned
80. **Transmission Control Protocol (TCP) has the same checksum controlling like\_\_\_\_\_\_.**
81. UDP
82. ICMP
83. STMP
84. IP
85. **The header size of a TCP datagram is\_\_\_\_\_\_.**
86. 4 bytes
87. 8 bytes
88. 20 bytes
89. 28 bytes
90. **Guided media provides a conduct from one device to another, includes\_\_\_\_\_\_.**
91. twisted pair cable
92. fiber optic cable
93. coaxial cable
94. All of the above
95. **Which of the following commands will place an IP address on your catalyst 1900 switch?**
96. Switch1#ip address 10.1.1.1
97. Switch1#ip address 10.1.1.1 255.255.255.0
98. Switch1(config)#ip address 10.1.1.1 255.255.255.0
99. Switch1(config-vlan)#ip address 10.1.1.1 255.255.255.0
100. **The most common twisted-pair cable used in communications are\_\_\_\_\_\_.**
101. UTP
102. STP
103. normal twisted copper pair cables
104. PTP
105. **The network layer is responsible for the\_\_\_\_\_\_.**
106. node to node communication
107. source to destination
108. hop to hop communication
109. both b and c
110. **Which address identifies a process on a host?**
111. physical address
112. logical address
113. port address
114. specific address

**SECTION B**

**Short Answers Questions**

**Answer any five (5) questions out of eight (8) questions (5\*6=30)**

1. Define networking. Mention the pros and cons of networking. (2+4)
2. Explain the P2P network with neat diagram.
3. Differentiate between OSI model and TCP model.
4. Draw the IPV4 structure and explain it.
5. Define routing. Explain the Distance vector and Link state routing protocol. (2+4)
6. Elucidate IP address. Explain its types.(2+4)
7. Define ICMP. list the error prompted by ICMP .(2+4)
8. Explain the different types of transmission medium in brief.

**SECTION C**

**Long Answer Questions**

**Attempt any two (2) questions out of three (3) questions. (2\*20=40)**

* 1. 1. Define transmission media. Differentiate between guided and unguided transmission media. Discuss each guided transmission in detail. (2+4+6)
     2. Define protocol. Discuss each layer of TCP/IP protocol architecture in detail.(2+6)
     3. Define Sub-netting. Mentions its pros and cons. Explain the class B Sub-netting with example. (2+4+6)
     4. Define FLSM. How it is differ from VLSM.(2+6)
     5. Explain client server system. How is it different from peer to peer system? (4+4)
     6. Explain how does CRC detect the errors with multiple bits? Given message is M(x) = x2+x4+x3=x2+1 and the generator is G(x) = x3+1. Show the actual bit string transmitted, suppose the third bit from the left is inverted during the transmission. Show how the error is detected at the receiver’s end. (3+6+3)

**\*\*\*\*BEST OF LUCK\*\*\*\***