

B.C.A. DEGREE EXAMINATION – NOVEMBER 2022
FIFTH SEMESTER

COURSE : MAJOR CORE
PAPER : COMPUTER NETWORKS
TIME : 3 HOURS

MAX. MARKS: 100

SECTION - A

ANSWER ALL THE QUESTIONS: (20x1=20)
Choose the correct answer:

1. _____ layer enables the user to access network.
a. Transport b. Application c. Datalink d. Network
2. TCP/IP model does not have _____ layer but OSI model have this layer.
a) session layer b) transport layer
c) application layer d) network layer
3. Conversion of digital signal to analog is _____.
a. bypass b. encapsulation c. demodulation d. modulation
4. In _____ transmission one bit follows another
a. Parallel b. Asynchronous c. Synchronous d. Serial
5. Main function of _____ layer is to transfer network packets from source to destination.
a. Transport b. Application c. Datalink d. Network
6. 10 Gigabit Ethernet operates only in _____ mode
a. full Duplex b. half duplex c. quadratic duplex d. duplex
7. DNS stands for _____.
a. Domain Name Space b. Domain Name System c. Domain Network Space
d. Domain Network System
8. Transmission control protocol _____.
a) is a connection-oriented protocol
b) uses a three way handshake to establish a connection
c) receives data from application as a single stream
d) all of the mentioned
9. WiMAX stands for _____.
a) Wireless Interoperability Maximum Communication
b) Worldwide International Standard For Microwave Access
c) Worldwide Interoperability For Microwave Access
d) Wireless Internet Maximum Communication
10. A software that lies between the OS and the applications running on it is _____.
a) Firmware
b) Middleware
c) Utility Software
d) Application Software

Fill in the blanks:

11. _____ and _____ are the two protocols defined by TCP/IP at the transport layer.
12. Protocols are set of rules to govern _____.
13. A local telephone network is an example of a _____ network.
14. _____ and _____ are the two broad categories of transmission media.
15. _____ is the standard communication protocol to create LAN.
16. The data link layer takes the packets from _____ and encapsulates them into frames for transmission.
17. _____ layer is responsible for flow control.
18. _____ and _____ are the two types of messages in DNS.
19. Second generation cellular phone network provided higher-quality mobile _____.
20. _____ refers to the fact that users cannot tell where resource is physically located in the system.

SECTION – B**ANSWER ALL THE QUESTIONS:****(5 x 2 = 10)**

21. Define data communication with diagram.
22. What is multiplexing?
23. What is random access and controlled access?
24. Write down the three stages of connection oriented transmission.
25. Define Distributed System.

SECTION - C**ANSWER ANY EIGHT OF THE FOLLOWING :****(8 x 5 = 40)**

26. Give an account on Presentation layer.
27. Explain OSI Model with a neat diagram.
28. Describe the different transmission modes in networks
29. Discuss about switching space division in detail.
30. Elucidate IPV4 and IPV6 address space.
31. Explain various methods of framing in datalink layer
32. Describe the Transport Layer Services.
33. Illustrate DNS messaging and Email with suitable examples.
34. Discuss on the Bluetooth technology and other wireless technologies.
35. Write short notes on Edge-Server Systems.

SECTION - D**ANSWER ANY THREE OF THE FOLLOWING :****(3 x 10 = 30)**

36. Elucidate the types of networks,
37. Explain Frequency Division Multiplexing and Time Division Multiplexing.
38. Give a detailed account on CRC and Checksum.
39. Differentiate between FTP and TELNET.
40. Distinguish between Cluster Computing and Grid computing in Distributed Computing Systems
