STELLA MARIS COLLEGE (AUTONOMOUS), CHENNAI – 600 086
(For Candidates admitted during the academic year 2019-2020 and thereafter)

B.C.A. DEGREE EXAMINATION – NOVEMBER 2023
FIFTH SEMESTER

COURSE : MAJOR CORE
PAPER : COMPUTER NETWORKS
SUBJECT CODE : 19CS/MC/CN55
TIME : 3 HOURS **MAX. MARKS: 100**

SECTION - A

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

1. _____ is the layer which provides service to the user.
   a. Session layer b. Transport layer
   c. Application layer d. None of the above
2. A set of rules is defined as _____.
   a. SMTP b. FTP
   c. PROTOCOL d. IMAP
3. In _____ systems, resources are allocated on demand.
   a. Packet switching b. Circuit switching
   c. Line switching d. Frequency switching
4. Attenuation means _____.
   a. Loss of medium b. Loss of energy
   c. Loss of signal d. All the above
5. The length of the IPv4 address is _____.
   a. 8 bits b. 32 bits
   c. 64 bits d. 16 bits
6. MAC stands for _____
   a. Media Access Control b. Mass Access Control
   c. Media Access Carriage d. None of the above
7. Data link layer is responsible for delivery of _____
   a. Packets b. Frames
   c. Data d. None of the above
8. _____ maintains the Domain Name System.
   a. Single server b. Single computer
   c. Distributed database system d. None of the above
9. _____ is an example of Bluetooth.
   a. Wide Area Network b.Local Area Network
   c. Personal Area Network d. Metropolitan Area Network
10. _____ modulation scheme is used by Bluetooth.
    a. GFSK b. DQPSK
    c. BPSK d. MSK

Fill in the blanks:

11. A _____ is a set of communication devices connected by media links.
12. The physical address is also known as _____.
13. _____ is the distance a simple signal can travel in one period.
14. _____ can be used to decompose a digital signal.
15. CRC stands for _____.
16. A technique called _____ is used to improve the efficiency of the bidirectional protocols.
17. The combination of an IP address and a port number is called a _____.
18. Domain name space is divided into _____ sections.
19. _____ is the main disadvantage of RF pulse system.
20. In a distributed system, information is exchanged through _____.

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SECTION – B

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

21. Define networks.
22. List down the guided transmission media.
23. What is store and forward packet switching?
24. What is process-to-process delivery?
25. Define Distributed System.

SECTION - C

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

26. Explain the categories of networks.
27. Differentiate between TCP/IP protocol suite and OSI model.
28. Illustrate analog and digital signals.
29. Describe about transmission modes.
30. Write a note on sliding window protocols.
31. Describe about the representation of IPv6 addressing.
32. Explain about multiplexing and demultiplexing.
33. Distinguish between UDP and TCP.
34. Write a note on ZigBee network.
35. Compare the types of distributed systems.

SECTION - D

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

36. Explain about the layers of OSI model.
37. Describe briefly about switching and its types.
38. Explain error correction and detection methods with examples.
39. Distinguish between connection-oriented and connectionless protocols.
40. Describe Bluetooth technology.

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