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DCCS602

Reg. No.

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VI Semester B.Sc. Degree Examination, July/August - 2024

COMPUTER SCIENCE

Computer Networks

(NEP Scheme)

Paper : 8



Time : 2 ½ Hours

Maximum Marks : 60

**Instructions to Candidates:**

1. Answer all the Sections.
2. Answer any four questions from each section.

**SECTION - A**Answer any **Four** questions. Each question carries 2 marks.

(4×2=8)

1. Define computer network. Mention the components of a computer network.
2. What is protocol? Write any two functions of protocol.
3. Define Bit Stuffing.
4. Define a) IP address b) ICMP
5. What is routing? Mention different types of routing.
6. Define a) NBT b) QOS

**SECTION - B**Answer any **Four** questions. Each question carries 5 marks.

(4×5=20)

7. What is a transmission mode? Explain different types of transmission mode.
8. Explain layered architecture with a neat diagram.
9. Mention any five differences between Random Access Protocol and Controlled Access Protocol.
10. Write a note on Packet Switching.

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11. Explain the different error detection techniques.
12. Describe Leaky Bucket Algorithm.

### SECTION - C

Answer any **Four** questions. Each question carries **8** marks.

(4×8=32)

13. a) Write a note on Network Topology. (6)  
b) Mention the characteristics of Data Communication. (2)
  14. a) Compare LAN, MAN, WAN. (6)  
b) State the difference between twisted pair and co-axial cable. (2)
  15. a) Explain TCP/IP architecture. (6)  
b) What is Link-Layer address? Mention the different types of addressing. (2)
  16. a) Differentiate between IPV4 and IPV6. (4)  
b) Write a note on CSMA. (4)
  17. a) Compare Data gram and Virtual circuit. (4)  
b) Discuss the various channelization protocols. (4)
  18. a) Explain Distance-Vector Routing Algorithm. (6)  
b) What is SYN and SYN-ACK? (2)
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