

B.E. Sixth Semester (Computer Technology) (C.B.S.) -  
**Computer Networks**

P. Pages : 2

Time : Three Hours



**KNT/KW/16/7402**

Max. Marks : 80

- Notes :
1. All questions carry marks as indicated.
  2. Solve Question 1 OR Questions No. 2.
  3. Solve Question 3 OR Questions No. 4.
  4. Solve Question 5 OR Questions No. 6.
  5. Solve Question 7 OR Questions No. 8.
  6. Solve Question 9 OR Questions No. 10.
  7. Solve Question 11 OR Questions No. 12.
  8. Assume suitable data whenever necessary.

1. a) Explain following terms with suitable diagram. 8
- 1) Coaxial Cable
  - 2) Fiber optics

- b) Explain advantages and disadvantages of
- i) Star topology. 3
  - ii) Mesh topology. 2

**OR**

2. a) Explain RS232 interfacing sequence with diagram. 6
- b) What are the important design issues for the layers in computer Networking? 7

3. a) Write a note on following flow control methods: 8
- 1) Stop-and -wait
  - 2) Sliding window

- b) Explain **any one** of the following in detail with suitable diagram 6
- 1) Token Bus
  - 2) Token ring
  - 3) IEEE 802.3

**OR**

4. a) Explain in short about:
- i) 1-persistent CSMA 3
  - ii) P-persistent CSMA 3
  - iii) Non persistent CSMA 3

- b) Detect the error if any from following hamming code message and give the corrected message. Assume even Parity 1011001011 5

5. a) What is an IP address? What are the different classes of an IP address? Give an example of any three special IP address and explain their meaning. 6

- b) What is congestion? How it is caused? Explain any one of congestion control algorithm. 7

**OR**

6. a) Brief about following terms:
- 1) Datagram approach 2
  - 2) Subnetting 2
  - 3) Packet switching 2
- b) Explain distance vector routing algorithm in detail. 7
7. a) Discuss in brief different Quality Of Service (QOS) parameters used in the transport layer. 6
- b) Explain TCP segment with proper diagram. 7
- OR**
8. a) Explain process to process communication of user Datagram Protocol (UDP). 7
- b) Explain duties of transport layer in detail. 6
9. a) State the difference between secret key encryption and public key encryption scheme in detail. 7
- b) Write a short note on
- 1) Substitution cipher 4
  - 2) Digital signature 3
- OR**
10. a) Write a short note on
- 1) SNMP 7
  - 2) DNS 7
- b) Draw and explain working of firewall. 7
11. a) Brief about cellular telephony and satellite network. 6
- b) Explain working of wireless LAN. 7
- OR**
12. Write a short note on:
- 1) Bluetooth technology 5
  - 2) Sonet 4
  - 3) DSL Technology 4

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