

B.E.(Computer Engineering) Semester Third (C.B.S.)  
**Introduction to Computer Network Paper- V**

P. Pages : 2

Time : Three Hours



**KNT/KW/16/7251**

Max. Marks : 80

- Notes :
1. Solve Question 1 OR Questions No. 2.
  2. Solve Question 3 OR Questions No. 4.
  3. Solve Question 5 OR Questions No. 6.
  4. Solve Question 7 OR Questions No. 8.
  5. Solve Question 9 OR Questions No. 10.
  6. Solve Question 11 OR Questions No. 12.
  7. Due credit will be given to neatness.
  8. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) What are the different categories of Network? Explain each with an example. 7

b) Explain various layers of OSI reference model. 7

**OR**

2. a) Explain hand width, signal, data representation by making diagram. 7

b) What do you mean by Topology? Explain any three topologies with advantages and disadvantages. 7

3. a) Explain circuit switching and packet switching networks. 6

b) Explain how signals travel in ground propagation, sky propagation and line of sight propagation. 7

**OR**

4. a) Write short note on MODEM. 6

b) Explain wireless transmission media. 7

5. a) Explain CSMA / CA random access protocol in detail. 7

b) Explain stop and wait protocol in detail. 6

**OR**

6. a) What is the need of bit stuffing? Explain with suitable example bit stuffing and character stuffing. 6

b) What do you mean by Noisy channel? Explain selective repeat ARQ protocol for Noisy channel. 7

7. a) What is congestion? Explain open loop and closed loop congestion control. 7

b) What is distance vector? Explain distance vector routing algorithm. 7

**OR**

8. a) Explain link state Routing algorithm. 7  
b) Explain various classes of IPV4 addresses. 7
9. a) Explain process-to-process delivery mechanism. 6  
b) What is socket? What is port number? What are well known port numbers? Explain the Significance of port numbers. 7

**OR**

10. a) State and explain various traffic shaping polices. 7  
b) Explain multiplexing and Demultiplexing in detail. 6
11. a) Define cryptography. Explain its types with advantages and disadvantages. 7  
b) Explain Browser Architecture. 6

**OR**

12. a) Explain Domain Name system. 7  
b) Write short notes on: 6  
i) Electronic mail.  
ii) Digital Signature.  
iii) Authentication.

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