Code: 9F00302

Time: 3 hours   Max. Marks: 60

Answer any FIVE questions
All questions carry equal marks

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1 (a) Make a comparison of OSI reference model and TCP/IP reference model.
   (b) Discuss various channels supported by ISDN bit pipe.

2 (a) Distinguish between SLIP and PPP. Also explain PPP in detail.
   (b) What is piggybacking? What are its advantages?

3 (a) Discuss CSMA/CD protocol and its basic functions.
   (b) What is pure ALOHA and slotted ALOHA? Mention the advantages of slotted ALOHA.

4 (a) The two-node instability can be avoided using split horizon combined with poison reverse. However, if the instability is between three nodes, stability cannot be guaranteed. Explain this scenario with an example.
   (b) With an explain discuss how the link state routing uses Dijkstra's algorithm to update the routing tables.

5 (a) Draw and explain the significance of each field in IPv4 header format.
   (b) Explain briefly switching in ATM networks.

6 (a) Explain in detail three way handshaking for connection establishment in TCP.
   (b) How does UDP differ from TCP? List the applications of UDP.

7 (a) Explain DES algorithm.
   (b) What is the purpose of a firewall? Explain the differences between filter based and proxy based firewalls.

8   Give a note on the following:
   (a) DNS.
   (b) MIME.

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