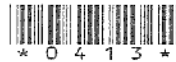


M.C.A. First Semester (Second Year) (CGS)
15522 : Computer Networks : 3 MCA 4

P. Pages : 2

Time : Three Hours



AU - 3162

Max. Marks : 80

- Notes : 1. Assume suitable data wherever necessary.
 2. Illustrate your answer necessary with the help of neat sketches.

1. a) Draw the architecture of the IP stack model of networking. Describe the functions of each of its layers. 8

b) Describe the types of connections in FTP. 6

OR

2. a) Explain the authentication procedure in HTTP. 8

b) What is packet loss? State the solution to this problem. 6

3. a) Explain the procedure for reliable data transfer over channel with bit-errors. 8

b) Describe the services provided by TCP. 6

OR

4. a) Explain the working of GBN protocol. 8

b) What is Congestion Window? State its role in controlling congestion. 6

5. a) Draw and explain the working of virtual circuit model in networking. 7

b) Describe various messages used in ICMP. 6

OR

6. a) Explain the protocol "RIP" used for routing. 7

b) What is multicast routing? Explain. 6

7. a) Explain the working of CSMA/CD protocol for MAC. 7

b) Describe the properties desired from point-to-point protocol. 6

OR

8. a) What is multiple access problem? State the probable solution to this problem. 7

b) Describe the Address Resolution Protocol. 6

9. a) List and describe various issues related to network security. 7
b) What is digital signature? Describe the procedure to create a digital signature. 6

OR

10. a) Explain the concept of secure e-mail. 7
b) What is authentication? Explain. 6
11. a) Explain the various areas of network management. 7
b) What is Firewall? Explain. 6

OR

12. a) What is SNMP? How does it help in network management? 7
b) What is MIB? Explain. 6
