

Roll No. ....

Total Pages .....

**1126**

**BCA / D-12**  
**COMPUTER NETWORKS**  
**Paper-BCA-354**

Time allowed: 3 hours

Maximum marks: 90

**Note:** Attempt **five** questions in all, selecting at least **one** question from each unit.  
Questions No. **1** is compulsory.

**(Compulsory question)**

1. (a) Discuss STAR, RING and BUS Topology.  
(b) Discuss Distributed Network.  
(c) Abbreviate ISDN, GSM, FDDI.  
(d) What is Analog signal? Give its advantage.  
(e) Define Band Rate, Bandwidth and Data Rate.  
(f) What is a Gateway? 3x6=18

**Unit-I**

2. Explain OSI Reference Model and differentiate with TCP/IP Model. 18  
3. Write notes on the following:  
(a) Network Applications  
(b) Network Models. 18

**Unit-II**

4. (a) Discuss Wireless Transmission Media.  
(b) Write note on the Multiplexing. 18  
5. (a) Write note on Switching and its types.  
(b) Write notes on T-carrier and E-carrier. 18

**Unit-III**

6. (a) Explain Error-Detection and correction mechanism in Data Link-Layer.  
(b) What Go-back-N and selective Repeat protocols? 18  
7. Write note on FDDI, Routers and Switched Ethernet. 18

**Unit-IV**

8. (a) What is routing? Discuss any one shortest path routing algorithm.  
(b) Discuss any two congestion control algorithms. 18  
9. Write notes on the following:  
(a) Security Threats  
(b) Encryption  
(c) Authentication. 18