



- Notes :
1. All questions are compulsory.
 2. All questions carry equal marks.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answers wherever necessary with the help of neat sketches.

1. a) Explain TCP/IP reference model. **8**
b) Write short note on: **8**
i) DNS ii) CIDR
OR
2. a) List special IP addresses and state their purpose. How to find subnet mask, first and last address calculation? **8**
b) Describe subnetting and super-netting with the help of a suitable example. **8**
3. a) State the types of OSPF packet, explain any one in detail. **8**
b) Explain Dijkstra's algorithm in detail. **8**
OR
4. a) Define multicasting and discuss various protocols. **8**
b) Discuss Bellman ford algorithm in detail. **8**
5. a) Explain state transition diagram of SCTP. **8**
b) Explain TCP header format. **8**
OR
6. a) Write short note on: **8**
i) Go-Back – N protocol ii) Selective repeat
b) Discuss in detail services provided by TCP. **8**
7. a) Draw client-server paradigm and explain. **8**
b) Draw and explain two different types of FTP connections. **8**
OR
8. a) Explain remote procedure call (RPC) mechanism. **8**
b) Write short note on: **8**
i) SMTP ii) WWW
9. a) Discuss voice over IP. **8**
b) Write characteristics of H-323. **8**
OR
10. a) Explain S/MIME protocol. **8**
b) Write short note on: **8**
i) SIP ii) RTCP
