

Duration: 3 Hours

Total Marks: 80

Note:

- (1) Questions No. 1 is compulsory.
- (2) Solve any three questions from remaining questions.
- (3) Draw suitable diagram whenever necessary.
- (4) Assume suitable data if necessary.

- Q1. **Answer Any four** (20)
- (a) Explain PSTN.
 - (b) Explain selective repeat protocol.
 - (c) Explain CRC with example.
 - (d) Compare Circuit switched and packet switched network.
 - (e) What is IP address, MAC Address and port address.
- Q2. (a) Explain the Taxonomy of multiple access protocols. (10)
- (b) What is Slotted ALOHA and Pure ALOHA? What is the efficiency? Justify your answer. (10)
- Q3. (a) Explain TCP Congestion Control. (10)
- (b) Explain IEEE 802.3, 802.4 and 802.5 standard. (10)
- Q4. (a) Explain TCP sliding window protocol with neat diagram. (10)
- (b) What is subnet mask? Explain subnetting and supernetting with example. (10)
- Q5. (a) Compare OSI and TCP network models. (10)
- (b) Explain HDLC protocol with suitable diagram. (10)
- Q6. Write short note on **(Any Four)** (20)
- (a) Satellite Communication
 - (b) Examine the advantages of LAN, MAN and WAN.
 - (c) Differentiate between connectionless and connection oriented services.
 - (d) Mobile Telephone System.
 - (e) Link State Routing.