

RVK/KW/13/3272/3363/3371/3381/3550

Faculty of Engineering & Technology
Eighth Semester B.E. (Electronics/EDT/E&T/IND/
Electro)/Seventh Semester B.E. P.T. (Electro.)
Examination

COMPUTER COMMUNICATION AND
NETWORKS

Sections—A & B

Time : Three Hours]

[Maximum Marks : 80

INSTRUCTIONS TO CANDIDATES

- (1) All questions carry marks as indicated.
- (2) Answer **THREE** questions from Section A and **THREE** questions from Section B.
- (3) Due credit will be given to neatness and adequate dimensions.
- (4) Assume suitable data wherever necessary.
- (5) Illustrate your answers wherever necessary with the help of neat sketches.

SECTION—A

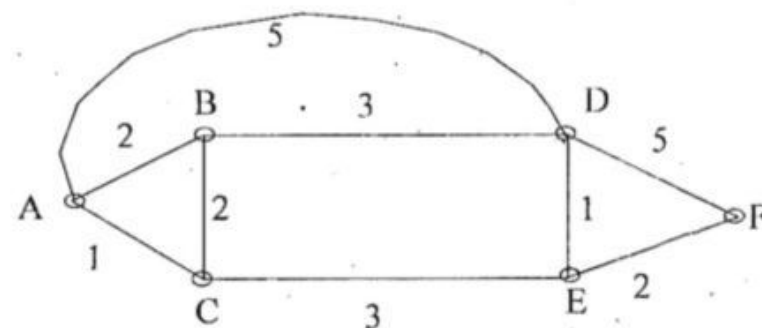
1. (a) Explain different types of Network and Network Topology. 6
- (b) Draw neat diagram of generalized Time division space switch and explain its working. 7

2. (a) Explain IEEE 802.3, 802.4 and 802.5 standards with special reference to frame format. 8
- (b) Compare single stage network with multistage network. 5
3. (a) Explain, why slotted ALOHA is more efficient than pure ALOHA. 6
- (b) What are high speed LANs ? Explain in detail. 7
4. (a) Discuss in detail the TCP/IP protocol architecture. 8
- (b) What do you understand by subnet addressing ? 5
5. (a) What is CSMA scheme ? Describe nonpersistent, I-persistent and P-persistent CSMA. 7
- (b) Explain Address Resolution Protocol (ARP) and Reverse Address Resolution Protocol (RARP). 7

SECTION—B

6. (a) Explain in detail fiber optics used as a transmission media in physical layer. 6
- (b) Explain the working of three levels of X.25 protocol. 7
7. (a) Explain in detail sliding window Protocol. 7
- (b) What do you mean by Piggy Banking ? Explain. 3
- (c) What is bit stuffing in HDLC frame ? Explain with example. 4

8. (a) Apply Dijkstra Algorithm to find the shortest path from node A to node F 7



- (b) Discuss various issues that are to be considered in design of network layer. 6
9. (a) What is congestion ? What are its types ? What are the congestion control algorithms ? 7
- (b) Explain in detail, cryptography used in network security. 6
10. Write notes on (any **Two**) :— 13
- (i) Domain name system.
- (ii) Electronic mail system.
- (iii) Real time transport protocol.