

PC-134/AK

O-2/2041

COMPUTER NETWORKS

Paper – MS(A)-214

IIInd Year (Annual)

Time : Three Hours]

[Maximum Marks : 80

Note : Attempt *two* questions each from Section A and B carrying 16 marks each and the entire Section C consisting of 8 short answer type questions carrying 2 marks each.

SECTION – A

- I. What is Computer Network? Explain the Goals and application of the Computer Network.
- II. Explain various layers of ISO Model? Discuss TCP/IP model in detail.
- III. What is the role of the Data link layer? Discuss various design issues along with elements of the Data link layer.
- IV. What is the Multiple Access Protocol? Explain ALOHA protocol in detail.

SECTION – B

- V. What is Dynamic Routing? Explain its advantages and disadvantages. Also, explain various categories of dynamics routing.
- VI. What is Transmission Control Protocol? Explain various elements of Transmission Control Protocol.
- VII. What is congestion control? Explain any *one* congestion control algorithm.
- VIII. What are various security threats to Computer Network? Explain Public key encryption in detail.

SECTION – C

- IX. Write short notes on the following :
 - (a) Limitation of BUS topology.
 - (b) Sliding Window Protocols.
 - (c) IEEE standard IEEE 802.3 and IEEE 802.11.
 - (d) URN protocol.
 - (e) Congestion control method.
 - (f) TCP.
 - (g) Network security thereats.
 - (h) HTTP and HTTPS.