Subject Code—682-X

M.C.A. (Fourth Year) EXAMINATION

(5 Years Integrated Course)

(Re-appear)

MCA-405

COMPUTER NETWORKS–II

Time : 3 Hours *Maximum Marks :* 100

Note : Attempt any *Five* questions. All questions carry equal marks.

1. Write down architecture of Internet. Explain various classes of IP address.

2. (a) With the help of diagram show the positions of TCP and UDP, protocol in the relation to various network layer and application protocol in the TCP/IP protocol suite. Include in your diagram a received message that contains header relating to various protocols and indicate the inter layer address selector.

(b) What is a socket ? Write down its types.

3. (a) Differentiate between circuit switching, packet switching and message switching.

   (b) Explain functions of the following network devices :

   (i) Routers

   (ii) Bridges.

4. (i) Differentiate between IPV_6 and IPV_4.

   (ii) Discuss function and features of Mobile IP.

5. Explain various multimedia communication networks with their services in detail. Why most data network operate in a packet mode ? Hence explain why services involving audio and video are supported ?

6. Define the concept of computer-based interactive, multimedia applications. What differentiates this form of information dissemination and learning from other forms, such as classroom *or* video ?

7. (a) Explain the role of an MCU in relation to video-conferencing session involving multiple geographically distributed video conferencing studio quantify the bandwidth implications of locating the MCU at one of the sites.

   (b) Explain the importance of real-time protocol like RTP and RTSP in the transmission of multimedia data.

8. (a) Explain the difference between video-conferencing and video-on-demand.

   (b) Write short notes on the following :

   (i) O.S.P.F.

   (ii) Hello

   (iii) Network back bond.