Exam. Code : 208603

Subject Code : 4719

M.Sc. (IT) 3rd Semester

NETWORK PROTOCOLS

Paper : MIT—301

Time Allowed—3 Hours]   [Maximum Marks—100

Note :— (1) There are total **EIGHT** questions. Candidates are required to attempt any **FIVE**. Each question carries **20** marks.

      (2) The students can use only non-programmable and non-storage type calculator.

1. Explain the architecture of internet and highlight various properties of internet.

2. Discuss the subnet addressing and the implementation of subnets with masks representation. Discuss the routing in the presence of subnets.

3. Discuss the role of RARP by taking a suitable example. What are the types of RARP servers ? How RARP is different from ARP ?

4. Discuss the message format and functionality of Internet Control Message Protocol (ICMP). How error reporting and detection is done using ICMP ?

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5. Discuss the IP datagram connectionless service. Explain how routing is done using IP datagram.

6. Discuss the functionality of TCP along with its message format. Also discuss the connection establishment procedure using TCP. How TCP is different from UDP ?

7. Discuss the UDP multiplexing and de-multiplexing. How checksum is computed in UDP ?

8. Write short notes on :

   (a) IP addressing classes

   (b) Table driven IP routing.