Exam. Code : 208603
Subject Code : 5245

M.Sc. (Information Technology) 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 IP routing process in detail with a diagram.

2. What are subnet addressing and its need ? How subnets are implemented ?

3. Explain the two step bootstrap procedure and its message format in detail.

4. Explain the salient features of IPv6 in detail. With neat architecture, explain TCP in detail.

5. Discuss IP routing and distance vector routing procedure.

6. Explain with figure about the broadcast and multicast routing.

7. Discuss various methods used for IP address management with DHCP.

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8. Write short notes on (Attempt **ALL**) :

   (a) Why is ARP & RARP required ?

   (b) Define CSMA/CD.

   (c) What is a DHCP ?

   (d) What is link-local address ?

   (e) What do you mean by Network topologies ?