

2008**M.Sc.****3rd SEMESTER EXAMINATION****Computer Science****PAPER—CS-2101****Full Marks : 50****Time : 2 Hours**

The figures in the margin indicate full marks.

Candidates are required to give their answers in their own words as far as practicable.

Illustrate the answers wherever necessary.

**Module-M1
(Computer Network)**

Answer any two questions.

1. (a) What is communication Protocol?
(b) State the differences between broadcast and point-to-point network.
(c) Classify network based on direction of Data flow. Define Half duplex and Full duplex. 2+4+4
2. (a) What are layers defined in OSI reference Model? Define SAP.
(b) Draw layer Architecture for a router to router communication.
(c) What are the role of Network Layer in router to router communication. 4+2+4
3. (a) What are the various types of Transmission media available in communication Network?
(b) Describe the structure of a optical Fiber Cable.
(c) Discuss the FDDI protocol. 2+4+4

(Turn Over)

4. (a) What is Framing?
 (b) Discuss various types of framing technique available in Data Link layer.
 (c) Discuss the working principle of Sliding window DLL protocol. 2+4+4

[Internal Assessment — 5]

Module-M2
(Internet Technology)

Answer any two questions.

5. (a) What is routing in Internetworking Technologies?
 (b) State the differences between Static and Dynamic routing.
 (c) What is flooding ? Write down the working principle of Flooding. 2+2+6
6. (a) Clearly specify the working principle of a I E E E 8025 Token Ring protocol.
 (b) Discuss the various fields of a Token Ring Frame Structure. 5+5
7. Explain with block diagram, a client server socket interface for connection-oriented and connection less protocol. 5+5
8. Write short notes on (any two) : 5×2
 (i) TCP and UDP.
 (ii) Packet Switching Network.
 (iii) Wireless LAN.
 (iv) Network Security.

[Internal Assessment — 5]