

Computer Net
(REVISED COURSE)

GT-6699

Con. 5556-10.

(3 Hours)

[Total Marks : 100

N. B. : (1) Question No. 1 is compulsory.
(2) Attempt any four out of remaining six questions.
(3) Figures to the right indicate marks.

- 1. (a) Describe any five design issues for the Layers. 05
 (b) What is the essential difference between Message Switching and Packet Switching? 05
 (c) Why does the Data Link protocol always put the CRC in a trailer rather than in a header? 05
 (d) A network on the Internet has a subnet mask of 255.255.240.0. What is the maximum number of hosts it can handle? Explain. 05
- 2. (a) Describe the OSI Reference Model with a neat diagram. 10
 (b) Discuss the difference between ADSL and Cable for use in Cable Television. 05
 (c) Explain the different Framing Methods. 05
- 3. (a) An 8-bit byte with binary value 10101111 is to be encoded using an even-parity Hamming code. What is the binary value after encoding? 05
 (b) Explain ALOHA in detail. 05
 (c) Explain Sliding Window Protocol using Go Back-N technique. 10
- 4. (a) Discuss the different ways to allocate a Single Broadcast Channel among competing users. 05
 (b) Discuss the working of Switched Ethernet with suitable example. 10
 (c) Discuss the use of Spanning Tree Bridges in Data Link Layer Switching. 05
- 5. (a) A router has the following (CIDR) entries in its routing table 10

Address/Mask	Next Hop
135.46.56.0/22	Interface 0
135.46.60.0/22	Interface 1
192.53.40.0/23	Router 1
Default	Router 2

For each of the following IP addresses, what does the router do if a packet with that address arrives?

 - i. 135.46.63.10 ii. 135.46.57.14
 - iii. 192.53.40.7 iv. 192.53.56.7
- (b) How does the Token Bucket algorithm works? 05
 (c) Discuss the Quality-of-Service requirements for Audio on Demand. 05
- 6. (a) What is the function of TCP Protocol? Discuss its Header format. 10
 (b) Discuss the Window Management in TCP transmission policy with a neat diagram. 05
 (c) Discuss the working of Transactional TCP. 05
- 7. Write short notes on (ANY FOUR):- 20
 - (a) Features of IPV6 Protocol.
 - (b) Difference between Hubs and Switches.
 - (c) Bluetooth Architecture.
 - (d) 802.11 Frame Structure.
 - (e) Adhoc Networking.