

June, 2006 JUN 2006

Subject Code—4259

M. Sc. EXAMINATION

(Third/Fourth Semester)

COMPUTER SCIENCE

MS-16

Computer Network

Time : 3 Hours

Maximum Marks : 100

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

1. (a) What are the reasons for using Layered Protocols ? 5
- (b) What are the main differences between TCP and UDP ? 7
- (c) What are the differences between connectionless and connection-oriented communication ? 8

P.T.O.

2. Discuss about the TDMA and explain the working of TDMA with suitable example. 20
3. (a) Discuss the ATM reference model. 10
(b) Explain the following : 10
 - (i) Half Duplex Transmission methods
 - (ii) Full Duplex method.
4. Discuss the frame format for the given data link protocols : 20
 - (a) HDLC
 - (b) SDLC.
5. How many types of switching techniques are available for Packet Transmission ? Explain each. 20
6. Explain the IEEE LAN standard 802.5 (token ring). How the token passing mechanism is managed for the proper functioning of IEEE 802.5 ? 20
7. (a) Discuss one routing algorithm for routing of packets in computer networks. 10
(b) Explain the services provided by ISDN. 10

8. Write short notes on any *two* of the following :
- (a) Shannon Hartlay Theorem
 - (b) Binary Synchronous Control (BSC)
 - (c) X-25 Network.
- 10,10