

Roll No. ....

Printed Pages : 3

**8612**

**BT-6/M12**

**COMPUTER NETWORKS**

**Paper-IT-358**

*Time allowed : 3 hours]*

*[Maximum marks :100*

*Note : Attempt five questions in all selecting at least one question from each of the four units.*

**Unit-I**

1. (a) Explain the following :
  - (i) Broadcast links
  - (ii) Point-to-point lines 4
- (b) Discuss the following terms :
  - (i) Layers
  - (ii) Protocols
  - (iii) Interfaces. 6
- (c) What are routers ? How are they used in computer networks ? 10
2. (a) Enlist different functions served by data link layer. 6
- (b) What is the basic function of Transport layer ? Explain. 6
- (c) Discuss different protocols associated with Application layer in OSI model. 8

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**Unit-II**

3. (a) Draw the block schematic diagram of TCP/IP reference model and explain the function of each layer. 10
- (b) Explain user Datagram Protocol in detail. 5
- (c) What is domain name system ? How are these implemented ? Discuss. 5
4. (a) In context with physical layer, explain the following : 10
- (i) Jitter
- (ii) Latency
- (iii) Collision.
- (b) Mention the important features of the following media : 10
- (i) Twisted Pair
- (ii) Coaxial cable
- (iii) Optical Fiber cable.

**Unit-III**

5. (a) What is MAC sublayer ? Explain its functions. 8
- (b) How MAC addressing is carried out ? 6
- (c) Briefly explain ALOHA protocol. 6

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6. (a) Explain network layer addressing in detail. 8  
(b) What is subnet mask ? Explain. 6  
(c) Write a note on DHCP. 6

#### Unit-IV

7. (a) Discuss design issues of the following :  
(i) Session layer  
(ii) Application layer. 14  
(b) What is the purpose of convergence sublayer in ATM ? Discuss. 6
8. Write short notes on the following : 5+5+5+5  
(a) Polling  
(b) Class of service  
(c) Security management  
(d) Proxy servers.