

BT-6/J04

Computer Networks

Paper : COT-306

Time : Three Hours]

[Maximum Marks : 100

Note : (1) Attempt any FIVE questions.

(2) All questions carry equal marks.

1. (a) Discuss the aims and objectives of Computer Networks.
(b) Discuss for example, each of the physical media required for transporting of information from one place to other. Also discuss their, relative merits & demerits. 20
2. (a) Explain the functions and responsibilities of each layer of the OSI reference model.
(b) How OSI different than a TCP/IP ? 20
3. (a) What is the need of the protocol in a communication system ? What do you mean by end to end requirements ?
(b) Discuss a sliding window protocol (use diagrams).
(c) Discuss what do you know about HDLC. 20
4. (a) Discuss token ring and token bus Lan's and compare them.
(b) Explain CSMA-CD and CDMA. 20
5. Explain the difference between :
(a) Circuit and packet switchings
(b) Datagrams and virtual circuits.
(c) Physical and logical connections
(d) Switch, hub and a router
(e) Bridge and a router 20
6. (a) Discuss : IP addressing, IP routing, UDP and multicast routing.
(b) Explain : ARP and RARP. 20
7. (a) Explain the various error correction techniques.
(b) Where do we need multiplexing ?
(c) What are the performance measures of LAN ? What are LAN components ? 20
8. (a) Discuss any two congestion control algorithms.
(b) Explain : SNMP and e-mail. 20