

**DIPLOMA IN COMPUTER SCIENCE AND
ENGINEERING (BTCSEVI)**

Term-End Examination

June, 2011

BICS-031 : BASICS OF NETWORKING

Time : 3 hours

Maximum Marks : 70

Note : Attempt any five questions. Each carry equal marks.

1. (a) What do you understand by computer network ? Explain the criteria and goals of computer network. **6+8**
- (b) What is point to point and multipoint connection ? Explain with diagram. Explain peer to peer and sever based networks.
2. (a) What is physical topology ? Explain Mesh and Ring topologies with their advantages and disadvantages. **8+6**
- (b) Explain Bridges and Gateways with proper diagram.
3. (a) Explain guided and unguided media with proper example ? Explain UTP and STP with diagrams. **7x2**
- (b) What is optical fiber cable ? What are their advantages and limitations ?

4. (a) Differentiate between OSI reference model and TCP/IP reference mode with suitable diagrams. 8+6
- (b) For the subnet mask address 255.255.255.192 find out the following :
- (i) Default mask address
 - (ii) Number of bits required for Subnet and Host
 - (iii) Number of subnet and Host per subnet
5. (a) What is modem ? What are various types of modem ? Explain the function of modem. 7x2
- (b) What is Router in computer network, describe in brief ? In which layer of OSI model does the router perform ?
6. (a) Find out the class of IP address for given IP 6+8
- (i) 0.1.1.1
 - (ii) 13.4.50.30
 - (iii) 129.38.45.6
 - (iv) 255.40.30.20
- (b) Explain the application layer protocol in detail.
7. Write short notes on *any two* from the following : 7x2
- (a) ARP
 - (b) TCP connection management
 - (c) Masking
 - (d) IP addressing
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