



RN-6849

B. E. III (Sem. V) (I.T.) Examination

May / June - 2010

Computer Networks

Time : 3 Hours]

[Total Marks : 100

Instruction :

नीचे दृशविले निशानीवाणी विगतो उत्तरवडी पर अवश्य लभवी.
Fillup strictly the details of signs on your answer book.

Name of the Examination :
B. E. 3 (Sem. 5) (I.T.)

Name of the Subject :
Computer Networks

Subject Code No. : 6 8 4 9 Section No. (1, 2,.....) : 1&2

Seat No. :
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Student's Signature

SECTION - I

1 Answer following questions : 20

(a) Fill in the blanks :

- (1) Communication between a computer and a keyboard involves _____ transmission.
- (2) Node to Node delivery of the data unit is the responsibility of the _____ layer.
- (3) To connect 8 devices in ring topology, we need _____ cable links.
- (4) DSAP stands for _____.
- (5) The collision domain of fast ethernet is limited to _____ meters.
- (6) SNI stands for _____.
- (7) In ISDN control information is transmitted through _____ channel.
- (8) CLP stands for _____.
- (9) _____ AAL type is designed to support SEAL.
- (10) Error detection method used by the higher - layer protocols is called _____.

(b) Explain pure aloha system. Derive the equation for the throughput of pure aloha system.

2 (a) Discuss various B-ISDN services. 8

(b) Write short note on :Satellite communication. 7

OR

2 (a) Explain various fast ethernet implementations. 7

(b) What is FDDI ? Discuss it in detail. 8

- 3 (a) What is peer to peer process ? Explain the concept of port address, logical address and physical address with suitable example. 7
- (b) Discuss ATM layers in detail. 8

OR

- 3 (a) Discuss various bit encoding technique used at physical layer. 8
- (b) Write short note on : HDLC. 7

SECTION – II

- 4 (a) Do as directed : 10
- (1) The PSTN is an example of a _____ network.
- (a) Packet-switched
- (b) Message-switched
- (c) Circuit-switched.
- (2) SMDS stands for _____.
- (3) UDP is more reliable protocol than TCP. (True/False)
- (4) If the IP is given as 205.16.37.39/28, the total number of addresses is _____.
- (5) List the network layer protocols.
- (6) 224.205.0.1 is an IP address of class E. (True/False)
- (7) Bridges function in _____ layer.
- (8) Internet protocol address of version 4 is of _____ bits.
- (9) List the protocols of transport layer.
- (10) _____ protocol is used for remote login.
- (b) Answer the following :
- (1) Explain the duties of network layer. 4
- (2) List the congestion prevention policy in TCP and explain any two in brief. 6

- 5 (a) What is a bridge ? Explain different types of bridges. 8
- (b) Explain the operation of DQDB layers. 7

OR

- 5 (a) Explain distance vector routing algorithm in detail. 8
- (b) Discuss the transmission of a message using datagram approach. 7

- 6 Answer any **three** of the following : 15
- (1) Explain three-way handshaking of transmission control protocol.
- (2) Explain in detail the difference between UDP and TCP.
- (3) Discuss about client / server model.
- (4) Discuss the functionality of file transfer protocol.