



SE-8268

B. E. III (Sem. V) (CO/IT) Examination

May / June – 2011

Computer Networks

Time : 3 Hours]

[Total Marks : 100

Instructions :

(1)

नीचे दशावलि निशानीवाणी विगतो उत्तरवडी पर अवश्य दभवी. Fillup strictly the details of signs on your answer book.	Seat No. :
Name of the Examination :	<input type="text"/>
<input type="text" value="B. E. 3 (Sem. 5) (CO/IT)"/>	<input type="text"/>
Name of the Subject :	<input type="text"/>
<input type="text" value="Computer Networks"/>	<input type="text"/>
Subject Code No. : <input type="text" value="8"/> <input type="text" value="2"/> <input type="text" value="6"/> <input type="text" value="8"/>	<input type="text"/>
Section No. (1, 2,.....) : <input type="text" value="1&2"/>	
Student's Signature	

1. Use separate answer sheet for each sections.
2. Make assumption whenever required.
3. Numbers on the right indicate marks.

SECTION - I

Q:1

(A) Answer the following questions. Each question carries **one** mark. 10

- (1) What is frame relay, in which layer it comes?
- (2) Which of the following is an advantage to using fiber optics data transmission?
(a) resistance to data theft (c) low noise level
(b) fast data transmission rate (d) all of above
- (3) What is bit rate?
- (4) What is piggybacking?
- (5) Which of the following is the greatest advantage of coax cabling?
(a) High Security (c) Long Distance
(b) Physical Dimension (d) Easy Installation

- (6) In OSI network architecture, the routing is performed by
- (a) network layer
 - (b) data link layer
 - (c) transport layer
 - (d) session layer
- (7) State the types of ALOHA
- (8) Hamming Code is Error Correction code. True or False?
- (9) CRC is Error Detection method. True/False.
- (10) Ethernet implement
- (a) IEEE 802.2 standard
 - (b) IEEE 802.3 standard
 - (c) IEEE 802.4 standard
 - (d) IEEE 802.5 standard
- (B) Attempt any TWO** 10
- (1) Give classification of transmission media.
 - (2) Explain mode of propagation in fiber optic.
 - (3) Given the data word 1010011010 and the divisor 10111. (1) show the generation of the code word at the sender site. (using binary division)
(2) show checking of the codeword at the receiver site (Assume no error)
- Q:2 Answer Any THREE.** 15
- (A) Explain methods of framing in data link layer.
 - (B) Explain Pure and Slotted ALOHA and compare them.
 - (C) Explain transparent and routing bridge.
 - (D) Explain CSMA with collision detection.
 - (E) Explain TCP/IP reference model with its layer and functionalities of each layer.
- Q:3 Answer Any THREE** 15
- (A) Explain unrestricted simplex protocol.
 - (B) Explain the function of the LLC and MAC sublayer.
 - (C) Explain difference between data link layer and transport layer.
 - (D) Explain Connection oriented and connection less services.
 - (E) Explain the function of Data link and Network layer.

SECTION-II

Q-4 Answer the following: (10)

- (a)
- 1 SMTP is Layer protocol.
 - 2 MANETs stands for
 - 3 Define foreign agents with respect to Routing for Mobile Host.
 - 4 Define Sink Tree.
 - 5 List the five steps of Link State Routing.
 - 6 Flooding isalgorithm. (Static / Dynamic)
 - 7 Find the class of following addresses:
114.34.2.8
208.34.54.12
 - 8 HTTP is a stateless protocol (True / False)
 - 9 Define Retransmission Timer.
 - 10 Find the class of following addresses:
11110111 11110011 10000111 11011101
10101111 11000000 11110000 00011101

(b) Difference between data link layer and transport layer. (5)

(c) Write a note on Classful Addressing. (5)

Q-5 Attempt Following: (15)

(a) Explain Leaky Bucket and Token Bucket Algorithms. (08)

(b) Explain Mobile IP. (07)

OR

(a) Explain MIME in Detail. (08)

(b) Explain Three way handshaking for connection establishment in transport layer. (07)

Q-6 Answer any THREE (15)

(a) Justify the statement: "TCP is more reliable than UDP". Also explain connection release with data loss in the transport layer.

(b) Explain IPV4 Header.

(c) What is CIDR? Explain it.

(d) Explain Transport Service Primitives and Berkeley Socket primitives of transport layer.