GUJARAT TECHNOLOGICAL UNIVERSITY
B. E. V[th] Semester–Examination – Nov-Dec- 2011
Subject code:150702
Subject Name: Computer Network

Date:24/11/2011   **Time: 02:30 pm – 05:30 pm**
                                                            Total Marks: 70

Instructions:
1. **Attempt all questions.**
2. **Make suitable assumptions wherever necessary.**
3. **Figures to the right indicate full marks.**

Q.1

(a)	What is OSI model ? Draw Diagram and Explain Physical, Data link and Network layer with its functions.	5
(b)	Discuss different types of guided and unguided media used to transmit data in the network.	5
(c)	Explain the terms : LAN, MAN, WAN, Internet	4

Q.2

(a)	Explain HDLC.	07
(b)	Explain Sliding window protocol using GO back to N.	07

OR

(b)	Explain STOP and Wait Protocol.	07

Q.3

(a)	Design issues of Network Layer.	5
(b)	Give ways to establish effective and Efficient network	5
(c)	Differentiate : Router and Switch	4

OR

Q.3

(a)	Design issues of Data link Layer.	5
(b)	Explain Advantages and Usage of Network	5
(c)	What is topology? Give different type of topology and its use	4

Q.4

(a)	Explain Distance Vector Routing Algorithm	5
(b)	Compare : Ethernet and Fast Ethernet	5
(c)	Explain Multicasting	4

OR

Q. 4

(a)	Explain Shortest Path Routing Algorithm	5
(b)	Explain : MAC address and IP address	5
(c)	What is Gateway ? How it works?	4

Q.5

(a)	Compare : TCP and UDP	5
(b)	Explain : DNS and its advantages	5
(c)	What is E-mail? How it works? Which protocol it uses?	4

OR

Q.5

(a)	Compare : IPv4 and IPv6	5
(b)	Explain WWW and HTTP	5
(c)	What is tunneling? Explain	4

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