DHARMSINH DESAI UNIVERSITY, NADIAD
FACULTY OF TECHNOLOGY
B.TECH. SEMESTER V [IT]
SUBJECT: (IT-505) COMPUTER & COMMUNICATION NETWORK

Examination	**: Block Sessional**	**Seat No.**	**: ___**
Date	**: 29/10/2011**	**Day**	**:**
Time	**: 11:00 to 12:15**	**Max. Marks**	**: 36**

INSTRUCTIONS:
1. Figures to the right indicate maximum marks for that question.
2. The symbols used carry their usual meanings.
3. Assume suitable data, if required & mention them clearly.
4. Draw neat sketches wherever necessary.

Q.1 Do as directed.   **[12]**
 (a) Differentiate: Subnetting and supernetting.   **[2]**
 (b) If client and server are communicating using TCP protocol and the TCP segment **[2]**
     contains only ACK then what is the size of packet for this segment at network layer?
 (c) Define: (a) Authentication. (b) Confidentiality.   **[2]**
 (d) Match the following   **[2]**
      (a)127.0.0.5   (p)Broadcast address
      (b) 255.255.255.255   (q)Host address
      (c) 192.168.36.0   (r)Network Address
      (d)192.168.36.18   (s)Loop Back Address
 (e) Is there any drawback of using piggybacking?   **[2]**
 (f) What is optimality principle?   **[1]**
 (g) Unit exchange at Datalink layer is called_____.   **[1]**

Q.2 Attempt the following questions.   **[12]**
     (I) What is silly window syndrome problem explain with diagram?   **[3]**
     (II) Which problem you face to establish a bridge between 802.x to 802.y?   **[3]**
     (III) Differentiate: Virtual Circuit subnet and Datagram subnet.   **[3]**
     (IV) Give limitations of SMTP.   **[3]**

Q.3 Attempt the following questions.   **[12]**
     (I) Consider a message D, presented by the following polynomial   **[6]**
     $x19 +x17 + x16 +x13 +x12 + x11 + x9 + x5 + x2 + 1$
     Calculate the CRC code R for that message using a "generator-polynomial"
     $x7 + x5 + x4 + x3 + x2 + 1$.
     Represent in binary code the message to be sent (D and R)
     (II) Explain IEEE 802.4 standard.   **[4]**
     (III) What is the subnetwork address for a host with IP address 165.100.5.68/28? **[2]**