Total No. of Questions : 6] **SEAT No. :**

P5091 **[Total No. of Pages :2**

T.E./Insem. - 640
T.E. (Computer Engineering)
COMPUTER NETWORK
(2015 Pattern) (Semester-I)

Time : 1 Hour] ***[Max. Marks : 30***

Instructions to the candidates:

1) ***Attempt Q.1 or Q.2, Q.3 or Q.4 & Q.5 or Q.6.***
2) ***Neat diagram must be drawn wherever necessary.***
3) ***Figure to the right indicate full marks.***
4) ***Assume suitable data, if necessary.***

Q1) a) What are the design issues of layers? Explain it. **[5]**

b) What are the different network devices? Explain difference between switch and hub. **[5]**

OR

Q2) a) What are the transmission techniques used by 802.11 to send a MAC frame from one station to another? Explain two of them. **[5]**

b) What is line encoding? Give the Manchester line code and differential Manchester code for the bit sequence: 1100110 **[5]**

Q3) a) What is need of framing? What are the different techniques of framing? Explain any two. **[5]**

b) The data word 1101011011 is to be sent using generator polynomial x^4+x+1, Use CRC to compute the code word at the sender side. **[5]**

OR

Q4) a) Explain Go back N Sliding window protocol with example. **[5]**

b) Explain bit oriented protocol for communication over point to point and multipoint link. **[5]**

P.T.O.

Q5) a) Draw and explain frame format of 802.16 standard. **[5]**

b) Consider building a CSMA/CD network running at 1 Gbps over a 1km cable with no repeaters. The signal speed in the cable is 200000km/sec. What is the minimum frame size? **[5]**

OR

Q6) a) State the difference between static and dynamic channel allocation? Give two examples for each? **[5]**

b) Explain working of CSMA/CA with the help of flow diagram. **[5]**

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