INSEM AUG 2016

Total No. of Questions : 6]

SEAT No. :

P42

[Total No. of Pages : 2

Oct.-16/T.E./Insem.-42

T.E. (Computer Engineering)

DATA COMMUNICATION AND WIRELESS SENSOR NETWORKS

(2012 Pattern) (Semester - I)

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

Instructions to the candidates:

1) ***Solve Que. 1 or 2, Que. 3 or 4, Que. 5 or 6.***
2) ***Neat diagrams must be drawn wherever necessary.***
3) ***Assume suitable data if necessary.***
4) ***Figures to the right indicate full marks.***

Q1) a) Represent 0011010111001 using following line coding schemes **[6]**

i) AMI

ii) Differential Manchester

iii) Polar NRZ

b) Write a note on Bluetooth frame format. **[4]**

OR

Q2) a) Define Sampling. Explain different sampling techniques with diagram. **[6]**

b) Describe the working of Virtual LAN. **[4]**

Q3) a) Explain Direct Sequence Spread Spectrum with an example. **[5]**

b) Compare Message switching and packet switching techniques. **[5]**

OR

P.T.O.

Q4) a) The size of the sender and receiver window must be at most one-half of 2^m in Selective Repeat ARQ protocol - Justify with flow diagram. **[5]**

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

Q5) a) Draw and explain the architecture of Wireless sensor network. **[6]**

b) Explain WSN Military application. **[4]**

OR

Q6) a) What is RFID technology? Explain active and passive tags. **[6]**

b) Explain category 1 and category 2 sensor networks. **[4]**