Total No. of Questions : 8]

SEAT No. :

P-7833

[Total No. of Pages : 2

[6181]-386

B.E. (Robotics & Automation Engineering)

WIRELESS SENSOR NETWORK (Theory)

(2019 Pattern) (Semester - VII) (411503B) (Elective - III)

Time : 2½ Hours] *[Max. Marks : 70*

Instructions to the candidates:

1) ***All questions are compulsory i.e. Solve Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q7 or Q8.***
2) ***Assume suitable data, if necessary.***
3) ***Figures to the right side indicate full marks.***
4) ***Neat diagrams must be drawn wherever necessary.***

Q1) a) Can the MAC protocols of 802.11 & Bluetooth be used for WSN? Justify and Explain these protocol. **[9]**

b) Explain WSN Standards- IEEE802.15.4 in detail. **[8]**

OR

Q2) a) Explain in brief about Classifications of MAC Protocols. **[9]**

b) Explain the terms : **[8]**

i) Wibree

ii) BLE

iii) Zwave

iv) ANT

Q3) a) Explain Localization Challenges and its Properties. **[9]**

b) Explain in detail : **[8]**

i) Deployment Schemes

ii) Proximity Schemes

OR

P.T.O.

Q4) a) What is mean by Routing? Explain static routing in detail. **[9]**

b) Explain in detail : **[8]**

i) Ranging Schemes

ii) Location-Based Routing

Q5) a) Explain different Security Issues in Wireless Sensor Networks. **[9]**

b) Explain different attacks on WSN. **[9]**

OR

Q6) a) Explain Security Mechanisms In WSN. **[9]**

b) Explain Different Clustering Techniques in detail. **[9]**

Q7) a) Write short note on General Testing and Validation process of WSN. **[9]**

b) Explain WSN Applications in detail. **[9]**

OR

Q8) a) Write notes on i) Home automation. **[9]**

b) Explain Top-Down Design Process Approach in detail for WSN. **[9]**

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