[5670]-619

B.E. (E & TC)

Wireless Sensor Network

(2015 Pattern) (Semester - II) (404192C) (Elective - IV)

Time : 2½ Hours]   *[Max. Marks : 70*

Instructions to the candidates:

    1)   *Neat diagrams must be drawn wherever necessary.*

    2)   *Figures to the right indicate full marks.*

Q1) a) Explanation operating system of WSN in terms of   **[8]**

       i)   Memory management.

       ii)   Interrupts.

       iii)   Tasks, Threads & Events (Any two).

  b) Write note on :   **[6]**

       i)   Sensor MAC.

       ii)   B-MAC.

  c) Compare wireless HART and ISA 100.11 a.   **[6]**

OR

Q2) a) Explain in detail : Architecture of WSN.   **[6]**

  b) Differentiate between Backward Error Control and Forward Error Control
     with suitable examples.   **[8]**

  c) Explain protocol stack of WSNs.   **[6]**

Q3) a) Compare Range-Based localization & Range Free localization.   **[8]**

  b) Write a note on :   **[8]**

       i)   Routing Basics.

       ii)   Routing Metrics.

OR

P.T.O.

Q4) a) Explain various Routing Metrics and Routing Protocols in WSN. **[8]**

b) What is Full Network Broadcast? **[8]**

Q5) a) What are different clustering techniques? **[8]**

b) Write a note on : **[8]**

     i) In Network Processing.

     ii) Data Aggregation.

OR

Q6) a) Explain security issues in wireless sensor networks. **[8]**

b) Explain Denial of service attack taking place at each layer. **[8]**

Q7) a) Explain in detail : Designing and Deploying WSN applications. **[8]**

b) What are general problems for deploying WSN applications. **[10]**

OR

Q8) a) Explain : The Top-Down Design process. **[8]**

b) How were Early WSN Deployments. **[10]**

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