U.S.N | | | | | | | | | | |

P.E.S. College of Engineering, Mandya - 571 401

(An Autonomous Institution affiliated to VTU, Belagavi)

Eighth Semester, B.E. - Computer Science and Engineering

Semester End Examination; May/June - 2018

Wireless Sensor Networks

Time: 3 hrs *Max. Marks: 100*

***Note**: Answer **FIVE** full questions, selecting **ONE** full question from each unit.*

UNIT - I

1 a.	Explain in detail characteristic requirement in WSN.	10
b.	With a diagram, explain hardware components in sensor mode.	6
c.	List characteristics of transceiver.	4
2 a.	Discuss the possible solutions to overcome the challenges of WSN.	10
b.	What are the various applications of WSN? Explain any two with examples.	10

UNIT - II

3 a.	Explain the concept of gateways with different scenarios in WSN.	10
b.	What is in-network processing? Explain different techniques of in-network processing.	10
4 a.	Describe how mobility can appear in different forms in WSN?	6
b.	Explain internet to WSN communication.	10
c.	Explain scalability of WSN.	4

UNIT - III

5 a.	Explain address and name management in WSN.	10
b.	What are the simple forwarding strategies in geographic routing? Explain.	10
6 a.	Explain Mediation device protocol with relevant diagrams.	10
b.	Explain energy efficient routing in WSN.	10

UNIT - IV

7 a.	Explain time synchronization.	10
b.	Explain range based localization algorithms.	10
8 a.	What is topology control? Explain the four components of latency in channel.	6
b.	Write a note on clustering in WSN.	6
c.	List and explain different approaches of localization.	8

UNIT - V

9 a.	Explain MICA mote architecture with a neat diagram.	10
b.	Describe mode level simulator components.	10
10a.	List and explain the features of ns-2 simulator and TOSSIM simulator.	10
b.	Explain different categories of sensor mode hardware.	10

* * * *