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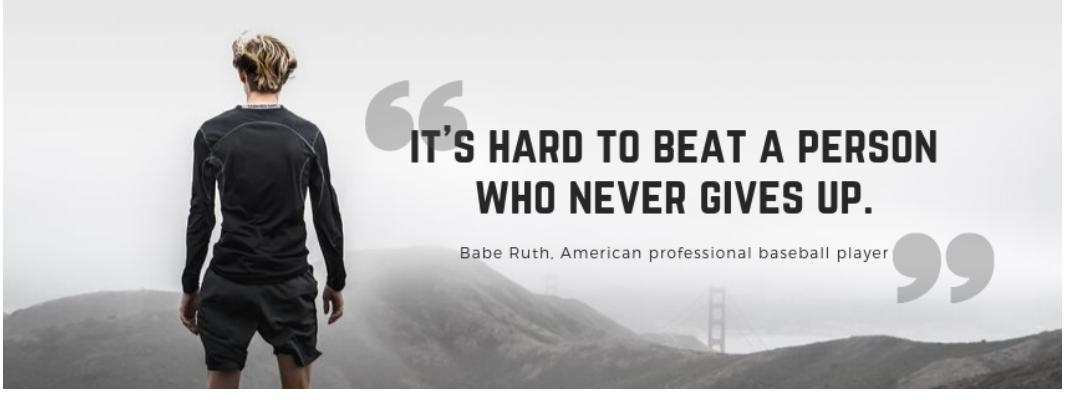

B.E. (Computer Science & Engineering) Eighth Semester (C.B.S.)

Elective - IV : Advance Wireless Sensor Network

P. Pages : 2 **NIR/KW/18/3696**

Time : Three Hours * 1 4 1 7 * Max. Marks : 80

Notes :
1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.
8. Due credit will be given to neatness and adequate dimensions.

1. a) What is WSN? Explain the various application Example of WSN. **9**

b) Differentiate between MANET and WSN. **5**

OR

2. a) Explain the characteristic requirement of WSN in detail. **8**

b) Explain the required mechanism that will be typical part of WSN. **6**

3. a) Explain the basic sensor node hardware component with its overview. **7**

b) What is Energy scavenging? Explain in detail. **6**

OR

4. Explain in detail **any two.** **13**

i) Event based programming model.

ii) Nesc defining model and its component.

iii) Tiny OS.

5. a) Explain in detail various Design principles of WSN. **7**

b) Explain in detail various types of mobility of WSN in different scenario. **6**

OR

6. a) Explain the various optimization goal and figures of merit of WSN. **7**

b) Explain in detail various sensor Network scenario of WSN. **6**

7. a) How the Geographic Addressing is done in WSN. **6**

b) Explain in detail about assignment of mac Address. **7**

OR

8.	a)	Describe in detail the various types of addresses and Names used in WSN.	**7**
	b)	What is cluster? Explain the steps to construct independent sets.	**6**
9.	a)	What is data aggregation? What are the metric used for data aggregation in WSN.	**7**
	b)	Draw and overview of possible multicast approaches used in WSN.	**6**

OR

10.	a)	Explain the broad casting using minimum cost spanning tree (prims Algorithm).	**7**
	b)	Write a short note on "Data centric routing with suitable example."	**6**
11.	a)	Explain about syndrome coding – Discuss with coset based example.	**7**
	b)	Describe in detail how Target detection and Tracking is done in WSN.	**7**

OR

12. Describe in detail **any three.** **14**

i) Danial of service attack.

ii) Security goal of WSN.

iii) Contour determination.

iv) Localized Edge detection.

v) Category of sensor.

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All our dreams can come true if we have the courage to pursue them.

~ Walt Disney