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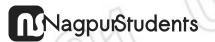"IT'S HARD TO BEAT A PERSON WHO NEVER GIVES UP.

Babe Ruth, American professional baseball player

B.E. Eighth Semester (Computer Science & Engineering) (C.B.S.)
Elective - IV : Advance Wireless Sensor Network

P. Pages : 2

Time : Three Hours

0742

NKT/KS/17/7614

Max. Marks : 80

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Notes :
1. Solve Question 1 OR Questions No. 2.
2. Solve Question 3 OR Questions No. 4.
3. Solve Question 5 OR Questions No. 6.
4. Solve Question 7 OR Questions No. 8.
5. Solve Question 9 OR Questions No. 10.
6. Solve Question 11 OR Questions No. 12.
7. Due credit will be given to neatness and adequate dimensions.
8. Assume suitable data whenever necessary.
9. Illustrate your answers whenever necessary with the help of neat sketches.

1. a) What is WSN? Explain the various application example of WSN. **7**

b) Explain the sensor node architecture used in WSN. **6**

OR

2. a) What are the challenges of WSN? **7**

b) Differentiate between MANET and WSN. **6**

3. a) Explain in detail event based programming model. **7**

b) Write a short notes of - TinyOS. **6**

OR

4. a) What is Energy Scavenging explain in detail. **7**

b) Explain with example nesc defuming modules and components. **6**

5. a) Compare single hop verses multihop networks in WSN. **6**

b) Explain in detail various design principles for WSN. **8**

OR

6. a) Describe how duty cycle protocol and wakeup concept. **6**

b) Explain the network architecture and types of nodes of IEEE 802.15.4 MAC protocol while used in WSN. **8**

7. a) What are the different Address and name management task in wireless sensor networks. **7**

b) What is cluster in WSN? Explain the basic algorithm to construct independent sets. **6**

OR

8.	a)	Describe in detail the various types of addresses and names used in sensor network.	**7**
	b)	Explain about Geographic Adaptive Fidelity (GAF) Protocol.	**6**
9.	a)	Draw an overview of possible multicast approaches used in WSN.	**6**
	b)	What is data aggregation? What are the metrics used for data aggregation in WSN?	**7**

OR

10.	a)	Explain distribution verses gathering of data In network processing of WSN.	**7**
	b)	Explain the Broad cashing using minimal cost - spanning tree (prim's algorithm) in WSN.	**6**
11.	a)	What are the security goal while security consideration in WSN.	**6**
	b)	Explain the various devial of service attacks in sensor networks.	**8**

OR

12.		Write a short notes on **any three.**	**14**
	1)	Target detection and Tracking.	
	2)	Localized edge detection.	
	3)	Contour determination.	
	4)	Syndrome coding.	

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The secret of getting ahead is getting started.

~ Mark Twain

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