B.E. (Electronics Engineering / Elect. & Telecommunication / Elect. & Communication Engineering) Eighth Semester (C.B.S.)

Elective-II : WSN (Wireless Sensor Network)

P. Pages : 2 **NRT/KS/19/3634/3645**

Time : Three Hours * 0 7 9 5 * 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.
9. Assume suitable data whenever necessary.
10. Illustrate your answers whenever necessary with the help of neat sketches.
11. Use of non programmable calculator is permitted.

1. a) Explain in details the following terms. **8**

i) Military related WSN application.

ii) Medical related WSN application.

b) Explain the Basic Block Diagram of Wireless Sensor Node. **6**

OR

2. a) Write a short note on Commercial approach of Wireless Sensor Network. **7**

b) Write short Notes on Sensor Taxonomy. **7**

3. a) Explain Various Wireless Sensor network protocols. **7**

b) Explain Radio Technology primer in detail. **6**

OR

4. a) Explain in detail various advanced Wireless Technologies **any two.** **6**

i) ZigBee Protocol

ii) Bluetooth.

iii) IEEE 802.22.

b) Write the difference approaches for WSN in physical layer. **7**

5.	a)	State the various routing challenges & design issue in Wireless sensor Networks.	**7**
	b)	Explain in detail about Data dissemination & gathering.	**6**

OR

6.	a)	Explain low Energy Adaptive clustering Hierarchy (LEACH) as routing algorithm.	**5**
	b)	Describe geographical routing in details.	**4**
	c)	Explain spin routing protocol in detail.	**4**
7.	a)	What is traditional transport control protocol? Explain in detail.	**7**
	b)	Explain Design Issues of transport control protocol.	**6**

OR

8.	a)	Write short notes on performance of transport control protocol.	**7**
	b)	Explain brief existing Transport control protocol in WSN.	**6**
9.	a)	Draw & Explain the middleware architecture of WSN.	**7**
	b)	Explain WSN middleware principles in details.	**6**

OR

10.	a)	Explain the existing middleware in details.	**7**
	b)	Explain the basic principle of middleware for WSN.	**6**
11.	a)	Write a short notes on performance & traffic management issues in WSN.	**7**
	b)	Write the Examples of management architecture for sensor network.	**7**

OR

12.	a)	Write the design issues for network management for performance.	**7**
	b)	What are the basic requirements for network management? Write in detail.	**7**

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