

Roll No.

Total Pages : 03

J-21-0153

B. Tech. EXAMINATION, 2021

Semester VII (CBCS)

WIRELESS SENSOR NETWORKS

EC-709

Time : 2 Hours

Maximum Marks : 60

The candidates shall limit their answers precisely within 20 pages only (A4 size sheets/assignment sheets), no extra sheet allowed. The candidates should write only on one side of the page and the back side of the page should remain blank. Only blue ball pen is admissible.

Note : Attempt *Four* questions in all, selecting *one* question from any of the Sections A, B, C and D.
Q. No. 9 is compulsory.

Section A

1. Explain range of application for Wireless Sensor Networks. Give at least *five* applications for category 1 application of Wireless Sensor Networks. **15**

2. Explain the innovative mechanisms to realize the characteristic requirements of WSN. 15

Section B

3. Differentiate between Coarse grained and Fine grained node Localization. 15
4. Explain about time synchronization mechanisms in WSN. 15

Section C

5. Explain Traffic adaptive medium access protocol (TRAMA). 15
6. What are the design issues with WSN operating systems ? List different operating systems available for WSN. Explain any *one* of them. 15

Section D

7. Draw block diagram of basic SPIN protocol operations and explain the operations in brief. 15
8. Write a note on classification of routing protocols for wireless sensor networks. 15

(Compulsory Question)

9. Write short notes on the following :
- (a) Explain background for Wireless Sensor Network Technology. 4
- (b) List the application of Wireless Sensor Network. 4
- (c) Tinyos 4
- (d) Write a note on LEACH. 3