

PCSS31A / PECS31 / PECS 31 A - Elective-I : Wireless Sensor Networks

P. Pages : 1

Time : Three Hours



GUG/W/22/11043

Max. Marks : 70

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- Notes :
1. All questions carry marks as indicated.
 2. Answer **five** questions out of **eight** questions.
 3. Assume suitable data wherever necessary.
 4. Illustrate your answers wherever necessary with the help of neat sketches.

1. a) Explain basic components of a wireless sensor network. 7
b) Explain the various challenges of wireless sensor networks. 7
2. a) Discuss the basics of Position Based Routing Protocol for WSN. 7
b) Differentiate between single hop and multi-hop networks. 7
3. a) Write short notes on : 7
i) SMAC and ii) BMAC protocols.
b) Describe briefly the address and name management in WSN. 7
4. a) Describe the various aspects and options for topology control in WSN with relevant example protocols. 7
b) Write a short note on Sensor Tasking and Control. 7
5. a) Mention the classification of code in Tiny OS. 7
b) Explain the various Node level software platforms available for sensor networks. 7
6. a) Write a short note on TinyOS and NesC. 7
b) Describe the types of wireless sensor networks in a brief manner. 7
7. a) Draw & explain the functional block diagram of WSN. 7
b) Explain types of mobility in WSN. 7
8. a) Write a short note on enabling technologies for wireless sensor networks. 7
b) Explain standard used for Wireless Personal Area Network and its correlation with Zigbee. 7
