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Total No. of Printed Pages: 1

Total No. of Questions: [11]

M. Tech. CSE (Semester – 1st)
WIRELESS SENSOR NETWORKS
Subject Code: MCSES1103
Paper ID: [23190203]

Time: 03 Hours

Maximum Marks: 60

Instruction for candidates:

1. Section A is compulsory. It carries 16 marks. It consists of 4 questions of 4 marks each.
2. Section B consist of 4 questions of 8 marks each. The student has to attempt any 3 questions out of it.
3. Section C consist of 3 questions of 10 marks each. The student has to attempt any 2 questions.

Section – A

(4 marks each)

- Q1. What is WSN? What are its applications?
- Q2. What is DTMC? What are its properties?
- Q3. What is Mobile Ad Hoc Network? What are its properties?
- Q4. What is SPIN? What are its advantages?

Section – B

(8 marks each)

- Q5. (a) Discuss performance metrics of WSN.
(b) Discuss various types of WSN.
- Q6. What is NS-3? Describe its core module with example.
- Q7. What is MANET? Discuss major routing protocols in MANET.
- Q8. What are possible security attacks in WSN and what counter measures can be adopted to avoid/ minimize these attacks?

Section – C

(10 marks each)

- Q9. Discuss various routing protocols of WSN in detail.
- Q10. a) Explain Sensor Network Architecture.
b) Explain briefly following WSN protocols
 - i) Synchronized
 - ii) Duty Cycled
- Q11. a) What is MAC Protocol used for? Which MAC Protocols are used in WSN?
b) What is Opportunistic Routing? Discuss.