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**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 Mote? How does it work?
- Q2. What are Markov chains useful for?
- Q3. Differentiate between broadcast and multicast.
- Q4.** What are the advantages of SPIN?

**Section – B**

**(8 marks each)**

- Q5. What are the performance metrics of WSN?
- Q6. What is ns-3? What will you use it for?
- Q7. What are the applications and characteristics of MANET?
- Q8.** What is the security of WSN network? How is it ensured?

**Section – C**

**(10 marks each)**

- Q9. What is WSN? What are its the applications?
- Q10. What are the types of routing used in WSN? Explain any one in detail.
- Q11. What is MAC protocol and its analysis? How is the analysis done?