Roll No……..….. **Total No. of Printed Pages: 1**
Total No. of Questions: [11]

M. Sc. IT (Semester – 3rd)
INFORMATION SECURITY
Subject Code: MITE1312
Paper ID: 220425

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. Explain security architecture for open systems with an neat diagram.

Q2. Explain cloud security in detail.

Q3. Explain the distributed denial-of-service attacks in detail.

Q4. Explain the Bell-LaPadula model for computer security in detail.

Section – B **(8 marks each)**

Q5. Explain symmetric and asymmetric encryption in detail with example.

Q6. What do you means by authentication? Explain different types of authentication methods.

Q7. Explain different types of software security issues.

Q8. What are the IT security controls, plans and procedures to implement these security plans, explain these in detail.

Section – C **(10 marks each)**

Q9. Explain step-by-step public-key encryption with the help of an example and a diagram

Q10. Explain access control principles, subjects, objects, and access rights. Describe UNIX file access control and role-based access control.

Q11. Explain malicious software and its types? Explain operating system security in detail.