

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

**M.Sc. (IT)(Sem.-4)**  
**INFORMATION SECURITY**

**Subject Code : MSIT-402**

**M.Code : 74114**

**Date of Examination : 07-07-22**

**Time : 3 Hrs.**

**Max. Marks : 60**

**INSTRUCTIONS TO CANDIDATES :**

1. **SECTIONS-A, B, C & D** contains **TWO** questions each carrying **TEN** marks each and students have to attempt any **ONE** question from each **SECTION**.
2. **SECTION-E** is **COMPULSORY** consisting of **TEN** questions carrying **TWENTY** marks in all.
3. **Use of Non-Programmable Scientific Calculator is allowed.**

**SECTION-A**

1. What are the security functional requirements? Discuss the security architecture for open systems.
2. What do you mean by Encryption? What are the types of encryption? Discuss the various encryption techniques.

**SECTION-B**

3. What are the various security issues for user authentication? Discuss in detail with an example of Iris biometric system.
4. What is Access control? Discuss and differentiate between discretionary access control and role based access control.

**SECTION-C**

5. Explain Denial-of-Service attack in detail. Also, give different security measures to prevent Denial-Of- Service attacks.
6. Write a short note on:
  - a) Virus
  - b) Keyloggers
  - c) Phishing
  - d) Spyware

e) Payload

#### SECTION-D

7. What are the threats to Operating System Security? Explain various security provisions in Windows Operating System.
8. Elaborate in detail the IT security management and risk assessment.

#### SECTION-E

9. Answer the following in brief:

- a. What is the difference between a threat and an attack?
- b. What is Digital Signature?
- c. Define Confidentiality.
- d. What are the different ways of ensuring user authentication?
- e. Define DBMS.
- f. What are Trojans?
- g. What are the problems of Bell-La Padula Model?
- h. Define DDOS.
- i. What is Stack overflow?
- j. Define Virtualization.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**