

UNIT – I

INTRODUCTION TO INFORMATION SECURITY

SHORT ANSWER TYPE QUESTIONS (1-Mark Each)

- 1 Define Information Security?
- 2 What are the characteristics of Information Security?
- 3 What are the multiple layers of Security?
- 4 What are the components of information system?
- 5 List the functions of Information Security?
- 6 Explain the types of security attacks?
- 7 List the types of access controls?
- 8 What is the need for security?
- 9 Write about system and data access?
- 10 Explain the measures to protect the confidentiality of information?
- 11 When can a computer be a subject and an object of an attack respectively?
- 12 Why is a methodology important in implementing the information security?
- 13 Can you explain what the term authorization means in the context of access control?

LONG ANSWER TYPE QUESTIONS (5-Marks Each)

- 1 Write in detail about security attacks, services, mechanisms?
- 2 Explain inter-network security
- 3 List the types of security attacks with example.
- 4 Explain Information Security and explain its significance in today's world.
- 5 Discuss the following terms in detail with relevant examples:
 - a. Interruption b. Interception c. Modification d. Fabrication
- 6 Explain the types of access control? Explain them briefly.
- 7 Summarize about access control in security PDF?
- 8 Discuss the difference between Discretionary Access Control and Mandatory Access Control?
- 9 Explain about Computer System Security.
- 10 Explain encapsulating Security Payload?
- 11 Describe the Critical Characteristics of Information.

12 Explain the Components of an Information System.

13 Which industries could benefit from an access control system?

UNIT – II

COMMUNICATION SECURITY

SHORT ANSWER TYPE QUESTIONS (1-Mark Each)

1 Define Cryptography

2 Define plaintext and cipher text?

3 Compare encryption and decryption?

4 Determine a Hash function?

5 Define cryptanalysis?

6 Determine about Data Integrity? 7 Explain about various types of ciphers in cryptography?

8 Distinguish encryption and decryption techniques?

9 Explain about communication security

10 Define about security in hash function

2S11 Define Cryptosystems

2S12 What are the types of Cryptanalytic attacks?

2S13 Define SSL?

2S14 Name the components of cryptosystem?

2S15 Write about Diffie-Hellman Key exchange?

LONG ANSWER TYPE QUESTIONS (5-Marks Each)

2L1 Explain about Communication channel used in Cryptography System? 2L2 a. Write about substitution techniques.

b. Write about transposition techniques.

3 Write about the various Types of ciphers

4 Explain about Security of Hashing Function.

5 What are applications of public key cryptography? Explain them briefly.

6 Construct AES encryption and decryption process with neat sketch?

7 Discuss briefly about Encryption and Decryption Techniques?

8 Write the importance of secure hash function with relevant examples

- 9 Explain briefly how diffusion and confusion increases complexity to the art the Cryptanalyst?
- 10 Explain all the principles of the public key crypto systems?
- 11 What are the Challenge of Symmetric Key Cryptosystem?
- 12 Explain about Diffie-Hellman Key exchange?
- 13 Explain the Types of Cryptanalytic attacks.
- 14 List out SSL Handshake Protocol.
- 15 Write about Hashing Algorithms.

UNIT – III

NETWORK

SHORT ANSWER TYPE QUESTIONS (1-Mark Each)

- 1 Define digital signature?
- 2 Simplify model for Network Security?
- 3 What is Email Security?
- 4 Write about web security considerations?
- 5 Explain the basic objectives of network security?
- 6 Name the different functionalities in the network security? 1 CO3
- 7 Discuss the difference between Authentication and Authorization?
- 8 What is VPN?
- 9 Discuss about network Sniffing?
- 10 Define Kerberos?
- 11 Write about web security requirements?
- 12 Write the types of networks.

LONG ANSWER TYPE QUESTIONS (5-Marks Each) BT Level Course Outcome

- 1 With a neat diagram write about a model for Network security
- 2 What is X.509 authentication service?
- 3 Describe the requirements in web security. Explain the various web security threats.
- 4 Describe security association
- 5 Discuss Kerberos v4 and Kerberos v5?
- 6 Determine how X.509 certificate is revoked?

- 7 Draw a neat diagram and write about IP Security Architecture?
- 8 Describe why Kerberos is more secure than the other security mechanisms?
- 9 Describe and explain how the security will be provided in Email?
- 10 Write in detail about Digital Signature?
- 11 Define payload? And discuss about encapsulating security payload?
- 12 What is the point to point and multipoint connection in NETWORKING?

UNIT – IV

SCANNING AND ENUMERATION TECHNOLOGY

SHORT ANSWER TYPE QUESTIONS (1-Mark Each)

- 1 Define Malicious code?
- 2 What is Firewall?
- 3 Explain about Honey pots?
- 4 Write short note on intruder?
- 5 What is the structure of a virus?
- 6 What is Malware?
- 7 What are the causes of malicious software?
- 8 Explain about the types of virus?
- 9 Distinguish Macro and E-Mail Virus
- 10 Discuss about Intrusion Detection?
- 11 What is a firewall? Mention its uses.
- 12 What is the difference between IDS and IPS?
- 13 What are the different types of honeypots that can be deployed?
- 14 Explain the Types of Honeypots.
- 15 What are Three types of Malicious Software?

LONG ANSWER TYPE QUESTIONS (5-Marks Each) BT Level Course Outcome

- 1 With neat diagrams show the differences between screened host firewall single homed bastion and screened host firewall dual homed bastion?
- 2 Elaborate about Firewall Configuration with neat sketch?
- 3 How does Scanning Works. 4 Explain the principles and limitations of a firewall?
- 5 Explain about the Enumeration Techniques.

6 How to prevent attackers to stealing our information?

7 Explain about Port Scanning Tools

8 Explain the types of malicious software?

9 Mention the steps used for configuring a firewall.

10 What are Scanning and Enumeration Techniques?

UNIT – V

ETHICS IN INFORMATION SECURITY

SHORT ANSWER TYPE QUESTIONS (1-Mark Each)

1 What is the difference between law and ethics?

2 Identify someone to deter from committing a crime?

3 Summarize the organizations listed that have a code of ethics, which is focused on auditing and control

4 How does due diligence differ from due care? Why are both important? 5 Explain about policy? How does it differ from a law?

6 Which law amended the Computer Fraud and Abuse Act of 1986, and what did it change?

7 Discuss about privacy in an information security context?

8 Discuss the List of MIME content Type?

9 What is the difference between law and ethics?

10 Identify someone to deter from committing a crime?

LONG ANSWER TYPE QUESTIONS (5-Marks Each)

1 Explain briefly about implementation of information security?

2 Explain about professional issues in information security?

3 What are the three general categories of unethical and illegal behavior?

4 Which is the best method for preventing an illegal or unethical activity?

5 Write briefly about legal ethical issues information security?

6 What is the difference between law and ethics? Explain about them briefly?

7 Justify why S/MIME is a security enhancement to MIME internet email format Standard?

8 Explain briefly about implementation of information security?

9 What are the Ethical Issues in Information Security?