

Scheme – G

Sample Test Paper - I

Course Name : Diploma in Information Technology

Course Code : IF

Semester : Fifth

Subject Title : Information Security

Marks : 25

17518

Time: 1 hour

Instructions:

1. All questions are compulsory
2. Illustrate your answers with neat sketches wherever necessary
3. Figures to the right indicate full marks
4. Assume suitable data if necessary
5. Preferably, write the answers in sequential order

Q1. Attempt any THREE (3 x 3) (9)

- a) Define term Information with respect to – (i)Data (ii) Knowledge (iii) Action
- b) What is Risk Management? List components of Risk Management.
- c) State pillars of Information Security.
- d) Describe following terms of protection mechanisms –
(i)Process Isolation (ii) Principle of least privilege (iii) Hardware segmentation

Q2. Attempt any TWO (2 x 4) (8)

- a) Define following terms of information security –(i)Policy (ii)Guidelines (iii)Standards (iv) IT Law
- b) Describe Biba model for Integrity
- c) Write any four criteria for classification of information.

Q3. Attempt any TWO (2 x 4) (8)

- a) What is data obfuscation method
- b) Describe Ring of Trust for single system.
- c) Describe Trusted Computing Base (TCB) with Reference monitor term.

Scheme – G

Sample Test Paper - II

Course Name : Diploma in Information Technology

Course Code : IF

Semester : Fifth

Subject Title : Information Security

Marks : 25

17518

Time: 1 hour

Instructions:

1. All questions are compulsory
2. Illustrate your answers with neat sketches wherever necessary
3. Figures to the right indicate full marks
4. Assume suitable data if necessary
5. Preferably, write the answers in sequential order

Q1. Attempt any THREE (3 x 3) (9)

- a) Define following terms – (i) Cryptography (ii) Cryptanalysis (iii) Cryptology
- b) What is cybercrime? List any four types of cybercrime.
- c) What is Identification, Authentication & Authorization?
- d) What is Cipher Text? Describe Caesar cipher with example.

Q2. Attempt any TWO (2 x 4) (8)

- a) Describe Play Fair cipher technique.
- b) What is Biometrics? Describe Handprint & Finger Print mechanisms of Biometrics.
- c) Give stepwise procedure to Recover Deleted Files.

Q3. Attempt any TWO (2 x 4) (8)

- a) What is Steganography? Describe terminologies used in steganography.
- b) What is Single Sign-On (SSO)? State its advantages.
- c) What is IT Act 2000? State its objectives.

Sample Question Paper

Course Name : Diploma in Information Technology

Course Code : IF

Semester : Fifth

Subject Title : Information Security

Marks : 100

17518

Time: 3 hours

Instructions:

1. All questions are compulsory
2. Illustrate your answers with neat sketches wherever necessary
3. Figures to the right indicate full marks
4. Assume suitable data if necessary
5. Preferably, write the answers in sequential order

Q1 (a) Attempt any THREE

12 Marks

- a) State pillars of information security? Describe with neat diagram.
- b) Define the following terms with respect to Information Security.
i) Policy ii) Guidelines iii) standards iv) TCB
- c) Define the following terms.
i) Plaintext ii) Cipher text iii) Encryption iv) Decryption
- d) State the meaning of the term “cybercrime”? List different types of cybercrime (any four).

Q1(b) Attempt any ONE

06 Marks

- a) What is information classification? Describe criteria for information classification.
- b) Define Risk. Describe how Risk is managed for Information Security.

Q2. Attempt any TWO

16 Marks

- a) Define security? Describe different types of securities in organizations.
- b) Consider plaintext "PIET" & key "HILL". Convert given plain text into cipher text using HILL Cipher.
- c) Describe IT Act 2000.

Q3. Attempt any FOUR

16 Marks

- a) Describe Bell-LaPadula model of confidentiality.
- b) Define following terms:
i) Access ii) Identification iii) Authorization iv) Authentication

- c) Describe Ring of trust for single system & for networking.
- d) Describe working of Digital Signature with neat diagram.
- e) Describe hacking, cracking, mail bombs & s/w piracy.

Q4 (a) Attempt any THREE

12 Marks

- a) Describe any four types of protection mechanism in trusted computing base.
- b) What is Kerberos? How it works?
- c) Describe TCSEC.
- d) Describe any four authentication protocols.

Q4 (b) Attempt any ONE

06 Marks

- a) Describe classical encryption techniques.
- b) Describe Play Fair Cipher with example.

Q5. Attempt any TWO

16 Marks

- a) What is data recovery? How deleted files can be recovered?
- b) Describe COBIT framework.
- c) Which items should be considered while designing inside & outside facility of building?

Q6. Attempt any FOUR

16 Marks

- a) How cybercrimes are investigated?
- b) Describe various physical access threats.
- c) Describe BIBA model of integrity.
- d) Describe ITSEC with its classes.
- e) With a suitable example describe Row Transposition Cipher.