# 24225 3 Hours / 70 Marks

Seat No.

#### Instructions:

- (1) All Questions are *compulsory*.
- (2) Answer each next main Question on a new page.
- (3) Illustrate your answers with neat sketches wherever necessary.
- (4) Figures to the right indicate full marks.
- (5) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

## 1. Attempt any FIVE of the following:

5×2

- (a) List types of attacks.
- (b) State any two disadvantages of Hash.
- (c) State proxy server.
- (d) Define OWASP.
- (e) State Ransomeware attack.
- (f) Define Virus.
- (g) Write cipher text for plain text "Computer Security" using Caesar cipher.

## 2. Attempt any FOUR of the following:

 $4\times3$ 

- (a) Define the following terms:
  - (i) Cryptography
  - (ii) Cryptanalysis
  - (iii) Cryptology
  - (iv) Steganography
- (b) Differentiate between Host based IDS and Network based IDS.
- (c) State any four drawbacks of Retina scan Biometrics.



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- (d) Write procedure to set good password.
- (e) Explain how deleted file can be recovered.

## 3. Attempt any FOUR of the following:

 $4 \times 3$ 

- (a) Explain with neat sketch working of Secure Socket Layer (SSL).
- (b) Write steps for setting file and folder permission.
- (c) What is two-factor authentication? Write different ways to use it.
- (d) Describe symmetric and asymmetric key cryptography.
- (e) Explain VPN with diagram.

## 4. Attempt any THREE of the following:

 $3\times4$ 

- (a) What is Computer Security & its need?
- (b) What is firewall? How does it work? Enlist limitations of firewall.
- (c) Describe rail fence technique. Convert "I am student" into cipher text using rail fence method.
- (d) Write importance of cyber security.
- (e) What is meant by access control? Describe in brief.

#### 5. Attempt any THREE of the following:

 $3\times4$ 

- (a) List out and describe any four types of brute force attack.
- (b) State & explain two-factor authentication process.
- (c) Explain Men-In-Middle attack with help of diagram.
- (d) Write steps followed in Kerberos.
- (e) Describe Encryption and Decryption with reference to computer security.

### 6. Attempt any TWO of the following:

 $2 \times 6$ 

- (a) Explain transposition technique. Convert plain text to Cipher text using Rail Fence technique "COMPUTER ENGINEERING".
- (b) Describe PGP and write steps for PGP with reference to email security.
- (c) Write steps for Fingerprint registration & verification process.