

**2021**

*Time : 3 hours*

*Full Marks : 70*

*Candidates are required to give their answers in their own words as far as practicable.*

*The figures in the margin indicate full marks.*

*Answer from all the Sections as directed.*

**Section – A**

**(Compulsory)**

1. Choose the correct answer of the following :

**1×5 = 5**

(a) To Hide Information Inside A Picture what Technology is used ?

- (i) Rootkits
- (ii) Bitmapping
- (iii) Steganography
- (iv) Image Rendering

**BX – 12/3**

**(Turn over)**

(b) What is the sequence of ATCP connection ?

- (i) SYN – ACK – FIN
- (ii) SYN – SYN ACK – ACK
- (iii) SYN – ACK
- (iv) SYN – SYN – ACK

(c) What is the most important activity in System Hacking ?

- (i) Information Gathering
- (ii) Cracking the Passwords
- (iii) Escalating Privileges
- (iv) Covering Tracks

(d) Phishing is a form of :

- (i) Impersonation
- (ii) Spamming
- (iii) Identify theft
- (iv) Scanning

(e) Three Security Goals are :

- (i) Confidentiality, cryptography and non-repudiation
- (ii) Confidentiality, encryption and decryption
- (iii) Confidentiality, encryption and availability
- (iv) None of these



2. Fill up the blanks : 1×5 = 5

- (a) The full form of EDR is \_\_\_\_\_.
- (b) Compromising confidential information comes under \_\_\_\_\_.
- (c) Lack of access control policy is a \_\_\_\_\_.
- (d) Possible threat to any information cannot be \_\_\_\_\_.
- (e) \_\_\_\_\_ platform are used for safety and protection of Information in the cloud.

### Section – B

#### (Short-answer Type Questions)

Answer any four questions (Answer to be not more than 200 words) : 5×4 = 20

- 3. (a) What is Information Security ? Explain the Security Mechanisms.
- (b) What is Cryptography ? Explain the origin of cryptography.
- (c) What is Threats ? Explain the memory and address protection of threat.
- (d) Explain the physical security and ethical issues in security.

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(3)

*Availability*

(Turn over)

(e) What is Database security ? Explain the types of database security.

(f) Explain the Program Security ?

### Section – C

#### (Long-answer Type Questions)

4. Answer any four questions of the following :

10×4 = 40

(a) What is DES ? Explain the types of DES.

(b) Explain the Digital Signatures and Digital Certificates.

(c) Describe the substitution ciphers and Transposition ciphers.

(d) Explain the Security mechanisms.

(e) Explain the cipher of plain text.

(f) What is Firewalls ? Explain the network security principle.

BX – 12/3 (500)

(4) Voc(Sem-V) — BCA  
(DSE – 2)