

**COPYRIGHT RESERVED    Voc(Sem-V) — BCA  
(DSE – 2)**

**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 :

$1 \times 5 = 5$

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

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

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**(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) Identity 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 :  $1 \times 5 = 5$

- (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) :  $5 \times 4 = 20$

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)

(Turn over)

Availability

- (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 :

$$10 \times 4 = 40$$

- (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.

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