

**2023**

*Time : 3 hours*

*Full Marks : 70*

*Pass Marks : 32*

*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 Groups as directed.*

**Group – A  
(Compulsory)**

**(Objective Type Questions)**

**1. Choose the correct option of the following :**

**$1 \times 5 = 5$**

**(a) Phishing is a form of :**

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

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**( Turn over )**

- (b) What is most important Activity in system Hacking ?
- (i) Information gathering
  - (ii) Cracking the passwords
  - (iii) Escalating privilege
  - (iv) Covering tracks
- (c) What is sequences of ATCP connection ?
- (i) SYN - ACK - FIN
  - (ii) SYN - SYNACK - ACK
  - (iii) SYN - ACK
  - (iv) SYN - SYN - ACK
- (d) Which of the following refer to technique used for verifying the integrity of message ?
- (i) Digital signature
  - (ii) Decryption algorithm
  - (iii) Protocol
  - (iv) Message Digest
- (e) Which one of the following usually used in the process of wi-fi hacking ?
- (i) Aircracking
  - (ii) Wire shark
  - (iii) Norton
  - (iv) All of these

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(2)

Contd.

2. Fill in the blanks of the following :  $1 \times 5 = 5$
- (a) Lock of access control policy is a \_\_\_\_\_.
- (b) The Release of message contents and traffic Analysis are two types of \_\_\_\_\_ attacks.
- (c) The OSI security Architecture focuses on security attacks, \_\_\_\_\_ and services.
- (d) Possible threats to any Information cannot be \_\_\_\_\_.
- (e) Compromising confidential information comes under \_\_\_\_\_.

**Group – B**  
**(Short-answer Type Questions)**

Answer any four questions of the following :

$$5 \times 4 = 20$$

3. What is Cryptography ? Explain the origin of cryptography.
4. What is Information Security ?
5. Explain the memory and Address Protection of threat.
6. Explain the type of database security.
7. Explain the Program Security.
8. Describe the Cyber Security.

**Group - C**  
**(Long-answer Type Questions)**

Answer any four questions of the following :

$$10 \times 4 = 40$$

9.  Explain the Digital signature and Digital certificates.
10.  What is Firewalls ? Explain the network security principle.
11.  What is DES ? Explain the types of DES.
12.  Describe the Substitution ciphers and transposition ciphers.
13. Describe the Security Architecture in Information Security.
14. Explain the following :
  - (a) Computer Criminal
  - (b) Data leakage
  - (c) Cyber attack
  - (d) Response code

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XH - 16/3 (500)

(4)

Voc(S-V) — BCA  
(DSE - 2)