

**2021-24**

Full Marks : 60

Time : 3 Hours

Sem-5

*Candidates are required to give their answer in their own words as far as practicable. Their figures in the margin indicate full marks.*

Answer from **both** the Sections as directed.

**Section - A/(Compulsory)**

1. Select the most appropriate option of the following statement :  $1 \times 10 = 10$
- (i) Which of the following is an objective of network security :
- (a) Confidentiality (b) Integrity  
(c) Availability (d) All of the above
- (ii) Identify the term which denotes that only authorized users are capable of accessing the information :
- (a) Confidentiality (b) Integrity  
(c) Availability (d) All of above

(iii) From the options below, which of them is **not** a vulnerability to information security :

☒ (a) Flood

☒ (b) Without deleting data, disposal of storage media

(c) Unchanged default password

(d) Latest patches and updates not done

(iv) Possible threat to any information cannot be :

(a) Reduced

(b) Transferred

(c) Protected

☒ (d) Ignored

(v) A firewall protects which of the following attacks ?

☒ (a) Phishing

(b) Dumpster diving

(c) Denial of Service (DoS)

(d) Shoulder surfing

(vi) What is used for database security ?

(a) A view

☒ (b) Data Encryption

(c) Finger print

(d) All of the above

(vii) The addition of multilevel security to a database system does not increase the complexity of the access control function.

(a) True ☒ (b) False

(viii) Salami attacks is a type of attack that operates on :

(a) Confidential data

(b) Company Data

(c) Financial Data

(d) Employee Data

(ix) In cryptography, what is cipher :

(a) Algorithm for performing encryption and decryption.

☒ (b) Encrypted message.

(c) Both algorithm for performing encryption and decryption and encrypted message.

(d) Decrypted message.

(x) The legal risks of ethical hacking include lawsuits due to of personal data :

(a) Stealing

(b) Disclosure

(c) Deleting

(d) Hacking

☒ 2. What is firewall ? What is the usage of it ?

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## Section - B

Answer any **three** questions :  $15 \times 3 = 45$

3. (i) What is the difference between encryption and hashing ?  
(ii) What is the difference between symmetric and asymmetric encryption.
4. (i) What are the security services of Information security ?  
(ii) What is attack in information security ? What are the types of attacks ?
5. (i) What is database security ? Explain requirements of database security.  
(ii) Explain the term reliability and Integrity in database security with example.
6. (i) What is trap door and salami attack ? Explain with example.  
(ii) Explain ethical issues in Information security.
7. Write short notes on (any **two**) :  $7.5 \times 2 = 15$ 
  - (i) Intrusion Detection System.
  - (ii) Digital Signature.
  - (iii) File Protection.

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