

17518

11920

3 Hours / 100 Marks

Seat No.

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- Instructions :**
- (1) All Questions are *compulsory*.
 - (2) Illustrate your answers with neat sketches wherever necessary.
 - (3) Figures to the right indicate full marks.
 - (4) Assume suitable data, if necessary.
 - (5) Use of Non-programmable Electronic Pocket Calculator is permissible.
 - (6) Mobile Phone, Pager and any other Electronic Communication devices are not permissible in Examination Hall.

Marks

1. (A) Attempt any THREE :

3 × 4 = 12

- (a) Define Information. State need and importance of information.
- (b) Define Information security. With respect to information security, define the following :
 - (i) Security policies
 - (ii) Standards
 - (iii) Guidelines
- (c) Define following terms :
 - (i) Plain Text
 - (ii) Cipher Text
 - (iii) Cryptography
 - (iv) Stegnography

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(d) Define following w.r.t. to Cyber Crime :

- (i) Hacking
- (ii) Cracking
- (iii) Software Piracy
- (iv) Intellectual Property

(B) Attempt any ONE :

1 × 6 = 6

(a) Explain following terms :

- (i) Data Obfuscation
- (ii) Event classification

(b) Describe following with neat sketch :

- (i) Ring of trust in single system.
- (ii) Ring of trust in Networked system.

2. Attempt any TWO :

2 × 8 = 16

(a) Describe : (i) Criteria for information classification.

(ii) Different types of securities in organization

(b) Explain following with suitable example :

- (i) Ceasor Cipher
- (ii) Row transposition Cipher.

(c) How do you recover the data in below situation ?

- (i) Deleted file
- (ii) Formatted partition

3. Attempt any FOUR :**4 × 4 = 16**

- (a) Define Risk Management. List different component's of Risk Management.
- (b) Explain Kerberos process with neat diagram.
- (c) Describe Bell-La Padula Model of confidentiality.
- (d) Describe any four applications of Cryptography.
- (e) Explain the following :
 - (i) Mail Bombs
 - (ii) Bug Exploits

4. (A) Attempt any THREE :**3 × 4 = 12**

- (a) Describe ITSEC with its classes.
- (b) Explain working of Single-Sign-On.
- (c) Describe Trusted Computing Base.
- (d) Differentiae between Symmetric key and Asymmetric key cryptography.

(B) Attempt any ONE :**1 × 6 = 6**

- (a) Enlist Authentication Protocol. Describe any two in detail.
- (b) Describe digital signature with its working.

5. Attempt any TWO :**2 × 8 = 16**

- (a) List and explain Data Recovery Tools.
- (b) Define Physical Access. What is physical access control ? List and explain physical access threat.

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- (c) Explain following with respect to security :
- (i) Identification
 - (ii) Authentication
 - (iii) Authorization
 - (iv) Remote user access.

6. Attempt any FOUR :

4 × 4 = 16

- (a) Describe IT Act, 2000.
 - (b) Describe COBIT Framework.
 - (c) Explain Clark and Wilson Model.
 - (d) Describe protection mechanism in Trusted Computing Base.
 - (e) Explain Hill Cipher with example.
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