

17518

11718

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) 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) What is Information Security ? Explain three pillars of information security.
- (b) Define Risk. Describe qualitative and quantitative risk analysis.
- (c) Define following terms :
 - (i) Plain Text
 - (ii) Cipher Text
 - (iii) Encryption
 - (iv) Decryption
- (d) State different causes of data recovery. Describe any one data recovery tool.

(B) Attempt any ONE :**1 × 6 = 6**

- (a) What is information classification ? Describe criteria for information classification.
- (b) Explain play fair cipher with an example.

2. Attempt any TWO :**2 × 8 = 16**

- (a) Explain confidentiality and integrity model with an example.
- (b) Explain following :
 - (i) Row Transposition Cipher with example.
 - (ii) Digital signature.
- (c) Describe ISO 27001 and ISO 20000.

3. Attempt any FOUR :**4 × 4 = 16**

- (a) Describe data obfuscation with an example.
- (b) Explain Information Security policy framework with diagram.
- (c) Explain Ceasor cipher with an example.
- (d) Describe cyber crime investigation.
- (e) Describe VPN (Virtual Private Network) with a neat diagram.

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

- (a) Explain COBIT framework.
- (b) Explain trusted computing base with respect to Information Security.

- (c) State the meaning of following terms :
- | | |
|----------------|--------------|
| (i) Spam | (ii) Hacking |
| (iii) Cracking | (iv) Spying |
- (d) Explain Kerberos process with a neat diagram.

(B) Attempt any ONE :

1 × 6 = 6

- (a) Describe six types of protection mechanism in trusted computing base.
- (b) Explain OTP (one time pad) with example.

5. Attempt any TWO :

2 × 8 = 16

- (a) Explain IT Act, 2000 and IT ACT, 2008 with advantages and disadvantages. (any 2).
- (b) Describe Hill cipher with example.
- (c) Define physical access. What is physical access control ? List and explain physical access threats.

6. Attempt any FOUR :

4 × 4 = 16

- (a) Describe ITSEC with its target of evaluation levels.
- (b) Explain event classification in Information Security.
- (c) Explain followings :
- | |
|-------------------|
| (i) Mail Bombs |
| (ii) Bug Exploits |
- (d) Define Biometric system with a neat diagram.
- (e) What is Data recovery ? Explain procedure for deleted files recovery.
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