

314319

25226

3 Hours / 70 Marks

Seat No.

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

Marks

1. Attempt any FIVE of the following :

10

- (a) Give the need of information security.
- (b) State any four advantages of Biometric.
- (c) Define the following terms :
 - (1) Plain text
 - (2) Cryptanalysis
- (d) Define the term packet filtering.
- (e) List features of Hash Function.
- (f) List types of firewall.
- (g) Define term Piggybacking.

2. Attempt any THREE of the following :

12

- (a) Compare Virus and Worms. (min. 4 points each)
- (b) Describe password selection strategies.



- (c) Explain Caesar Cipher substitute technique with suitable example.
- (d) Explain DES (Data Encryption Standard) algorithm with diagram.

3. Attempt any THREE of the following : 12

- (a) Describe principles of information security.
- (b) Describe Access rights and permission Access control policies of Mandatory Access Control (MAC).
- (c) Compare symmetric and asymmetric key cryptography. (min. 4 points each)
- (d) Draw and explain NetworkBased intrusion detection system.

4. Attempt any THREE of the following : 12

- (a) Describe the terms : Sniffing, phishing.
- (b) Explain Biometrics authentication process used in Retina scan patterns.
- (c) Describe multifactor authentication and token based authentication.
- (d) Explain working of Digital Signature with suitable diagram.
- (e) Explain Pretty Good Privacy (PGP) protocol used for E-mail security.

5. Attempt any TWO of the following : 12

- (a) Convert plain text into Cipher Text by using Simple columnar technique of following sentence : ALL THE BEST FOR YOUR EXAM
- (b) Describe working of MD5 and SHA algorithm.
- (c) Explain the following terms of cyber crime :
 - (i) Hacking
 - (ii) Cyber stalking/Harassment
 - (iii) Cyber pornography

6. Attempt any TWO of the following : 12

- (a) Describe Vigenere Cipher, Vernam Cipher with suitable example.
 - (b) Explain Threats to mobile phone and its security measures.
 - (c) Describe the cyber law used Crimeagainst individual, Government property.
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