



# 17514

**15116**

**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.*

- |  | <b>Marks</b>      |
|--|-------------------|
| <b>1. a) Attempt any three of the following :</b>  | <b>12</b>         |
| 1) Describe security principles based on CIA.  |                   |
| 2) Explain piggybacking.   |                   |
| 3) Compare symmetric and asymmetric key cryptography.  |                   |
| 4) Describe terms regarding computer security.   |                   |
| i) Assets  | ii) Vulnerability |
| iii) Threats   | iv) Risk          |
| <b>b) Attempt any one of the following :</b>   | <b>6</b>          |
| 1) Explain model of security with block diagram.   |                   |
| 2) Explain data recovery tools and procedures.   |                   |
| <b>2. Attempt any two of the following :</b>   | <b>16</b>         |
| 1) Explain any four attacks on computer systems security.  |                   |
| 2) Explain at least four roles of peoples in security.   |                   |
| 3) Explain SHA-1 algorithm with diagram.   |                   |
| <b>3. Attempt any four of the following :</b>  | <b>16</b>         |
| 1) Explain the concept of Kerberos.  |                   |
| 2) Describe the process of biometric authentication with neat labelled diagram for finger print. |                   |
| 3) Explain use of S-Box in implementation of DES algorithm.                                      |                   |
| 4) Explain working of PGP email security.  |                   |
| 5) Explain the steps for hardening applications.   |                   |

**P.T.O.**



4. a) Attempt **any three** of the following : 12
- 1) Explain concept of Hashing with example and properties.
  - 2) Describe following term :
    - i) DMZ
    - ii) Internet
    - iii) Intranet
    - iv) IDS
  - 3) Explain cyber crime
  - 4) Explain working of Handshake protocol in SSL.
- b) Attempt **any one** of the following : 6
- 1) Define attack. Explain steps in attack.
  - 2) Define virus. Explain atleast 5 types of viruses.
5. Attempt **any two** of the following : 16
- 1) Explain what are components of good password and four password selection strategies.
  - 2) Explain in detail intrusion detection systems.
  - 3) Explain need for firewall and explain one of the type of firewall with diagram.
6. Attempt **any four** of the following : 16
- 1) Enlist any four consequences when the system is accessed by non-employee.
  - 2) Explain rail fence transposition technique.
  - 3) Explain AH mode of IP security.
  - 4) Explain IT Act 2000 and 2008.
  - 5) Explain the function of entities used in SET.
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