15162

3 Hours / 100 Marks   Seat No.

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) **Preferably**, write the answers in sequential order.

Marks

1. a) Attempt **any three** :   **12**
   i) State the need for computer security.
   ii) Describe role based access control.
   iii) Define the following term :
      A) Cryptograph   B) Cryptology
      C) Cryptanalysis   D) Cipher text
   iv) Define virus and logic bomb.

b) Attempt **any one** :   **6**
   i) Describe the following attacks :
      A) Sniffing   B) Spooting
   ii) Describe data recovery procedure.

2. Attempt **any two** :   **16**

   a) Describe CIA model for computer security with example.

   b) What is the importance of biometrics in computer security ? Describe finger prints registration and verification process.

   c) Explain rail fence technique with algorithm. Encrypt "Computer Security Technology" using rail fence technique.

3. Attempt **any four** :   **16**

   a) Explain VPN with neat diagram. Enlist different VPN protocols.

   b) Describe different password selection criteria.

   c) Distinguish between symmetric and asymmetric key cryptography (four points).

   d) Describe Host based IDS with its advantages and disadvantages.

   e) Describe SET with its requirements and participants.

Marks

4. a) Attempt **any three** :   **12**
   i) Explain simple columnar transposition technique with algorithm and example.
   ii) Describe IP security architecture.
   iii) Define cyber crime. List different types of cyber crimes.
   iv) What is software piracy ?

   b) Attempt **any one** :   **6**
   i) Explain DOS and DDOS with neat diagram.
   ii) Explain worm and virus. Differentiate between worm and virus.

5. Attempt **any two** :   **16**
   a) Explain individual user responsibilities in computer security.
   b) What is PGP ? How PGP is used for email security ?
   c) Explain characteristics, working, design principle and limitation of firewall.

6. Attempt **any four** :   **16**
   a) Describe dumpster diving with its prevention mechanism.
   b) Explain the term steganography with example.
   c) Describe the concept of kerberos.
   d) Describe IT Act 2008
   e) What is TLS ? What are two layers of TLS ?

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