

17514

14115

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** of the following: **12**
- (i) Describe the need for computer security.
 - (ii) Explain any four the password selection strategies.
 - (iii) Define the following terms:
 - 1) cryptography
 - 2) crypt analysis
 - 3) plain text
 - 4) cipher text.
 - (iv) Describe SYN flooding attack with diagram.
- b) Attempt any **ONE** of the following: **06**
- (i) Define the term virus and describe the different phases of virus.
 - (ii) Explain the following terms:
 - 1) deleted file recovery
 - 2) formatted partition recovery.

P.T.O.

- 2. Attempt any TWO of the following:** **16**
- a) Draw the flow diagram of DES algorithm and explain each step in detail.
 - b) Define access control and describe DAC, MAC and RBAC access control models.
 - c) Give the steps for verification of a digital certificate.
- 3. Attempt any FOUR of the following:** **16**
- a) Describe overview of Kerberos with diagram.
 - b) Draw and explain biometric system.
 - c) What are the techniques for transforming plain text to cipher text? Explain any one in detail.
 - d) Describe the working principle of PEM email security.
 - e) Describe:
 - (i) application patches
 - (ii) upgrades.
- 4. a) Attempt any THREE of the following:** **12**
- (i) Consider a plain text “Computer Security” encrypt it with the help of Rail Fence Technique also write the algorithm.
 - (ii) Describe packet filtering router firewall with neat diagram.
 - (iii) Describe the following w.r.t. cyber laws:
 - 1) IT act 2000
 - 2) IT act 2008.
 - (iv) What is secure electronic transaction? Enlist and describe any four components of SET.
- b) Attempt any ONE of the following:** **06**
- (i) Compare Insider and Intruders of four points and describe who is more dangerous.
 - (ii) Describe:
 - (i) man in the middle attack
 - (ii) replay attack with diagrams.

- 5. Attempt any TWO of the following:** **16**
- a) Describe the role of people in security.
 - b) Describe the components of HIDS with neat diagram. State its advantages and disadvantages.
 - c) What is IP sec? Draw and explain the AH format of IP sec.
- 6. Attempt any FOUR of the following:** **16**
- a) State any four different types of problems occur due to installation of unauthorized software/hardware.
 - b) Describe Caesar's cipher technique. Write its algorithm with an example.
 - c) Describe DMZ with suitable diagram.
 - d) Describe:
 - (i) hacking
 - (ii) cracking.
 - e) Explain secure socket layer and describe the SSL protocol stack with neat diagram.
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