

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.

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Marks

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

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Marks**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.
