17514

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3 Hours / 100 Marks Seat No. | | | | | | | | |

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) Mobile Phone, Pager and any other Electronic Communication devices are ***not permissible*** *in Examination Hall.*

Marks

1. a) Attempt **any three**. **12**

a) Describe the basic principles of computer security.

b) List types of attacks. Explain backdoors and trapdoors attack.

c) Describe piggy backing and shoulder surfing.

d) Explain the terms : Cryptography, cryptanalysis and Cryptology.

b) Attempt **any one**. **6**

a) Describe Model for security with the help of diagram.

b) Explain IT Act, 2000 and IT Act, 2008.

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

a) Explain threat to security in detail w.r.t. virus, worms, intruders, insiders.

b) What is access control ? Explain DAC, MAC and RBAC access control model.

c) Explain transposition technique. Convert plain text to cipher text using Rail Fence technique "COMPUTER SECURITY"

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

a) Explain use of Biometrics in computer Security. List various Biometrics used for computer security.

b) Distinguish between substitution cipher and transposition cipher.

c) List types of firewall. Explain packet filter with diagrams.

d) What is IP security ? Describe authentication header mode of IP security.

e) Explain the architecture of secure socket layer.

P.T.O.

Marks

4. a) Attempt **any three**. **12**

a) Define caesar cipher. Write its algorithm and convert "COMPUTER SECURITY" using caesar cipher.

b) Draw and explain virtual private network.

c) Describe pornography and software piracy related to cyber crime.

d) Explain what is application hardening.

b) Attempt **any one**. **6**

a) With neat sketches explain the following :

i) SYN Flood Attack

ii) Main-in-the middle attack.

b) Describe packet sniffing and packet spoofing attacks.

5. Attempt **any two**. **16**

a) Explain the role of people with respect to password selection in detail.

b) What is security topology ? Describe security zone in detail.

c) What is Kerberos ? Explain with diagram different servers involved in Kerberos.

6. Attempt **any four**. **16**

a) Describe security awareness in security.

b) Distinguish between symmetric and asymmetric cryptography (any 4 points).

c) Explain e-mail security techniques (protocols).

d) What is intrusion detection system ? Explain host based IDS.

e) List and explain the key participants in secure electronic transaction.
