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BT-8/D-23

CYBER SECURITY

Paper : OE-CS-402A

Time : Three Hours]   [Maximum Marks : 75

Note : Attempt *five* questions in all, selecting at least *one* question from each Unit-I to Unit-IV. All questions carry equal marks.

UNIT–I

1. (a) What is the scope and nature of Cyber-Crimes? Explain different types of Cyber-Crimes.

   (b) Define Cyber-Crimes. Discuss about cyber extortion and drug trafficking.   8+7=15

2. Discuss the following :

   (a) Shannon's theory of confusion and diffusion.

   (b) Differential and linear crypt analysis of DES.

                                                          8+7=15

UNIT-II

3. (a) Differentiate between MAC and Hash functions. Explain Secure Hash Algorithm (SHA_1).

(b) What are Digital Signature Standards (DSS)? Distinguish between direct and arbitrated digital signature.   8+7=15

4. (a) Define Kerberos. What 4 requirements were defined by Kerberos? In the content of Kerberos, what is realm?

(b) Explain the operation description of PGP. Why E-mail compatibility function in PGP needed?

8+7=15

UNIT-III

5. (a) Differentiate between active and passive attacks. Explain Cyber-Crimes prevention methods.

(b) Explore the mechanism for hardware protection and archival storage.   8+7=15

6. (a) Explain the technical details of firewall and describe any three types of firewall with neat diagram.

(b) Explain Secure Electronic transaction with neat diagram.

(c) Discuss three classes of intruder. Explain Intruder behaviour pattern.   5+5+5=15

UNIT–IV

7. (a) Discuss the historic background and need of digital forensic. Explain the challenges in digital forensic.

(b) Explain the different phases of digital forensic life cycle. Give a brief note on software support for digital forensic. 8+7=15

8. Why do we need cyber laws? Discuss cybercrimes scenario in Indian. Explain the provisions of Indian IT act against Cyber-Crimes. 15

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