

Total No. of Questions : 10]

SEAT No. :

**P3993**

**[5561]-700**

[Total No. of Pages : 2

**B.E. (Information Technology)  
INFORMATION AND CYBER SECURITY  
(2015 Pattern) (414453)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q.1 or Q.2, Q.3 or Q.4, Q.5 or Q.6, Q.7 or Q.8, Q.9 or Q.10.
- 2) Neat Diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume Suitable data, if necessary.

**Q1) a)** What is an Intrusion Detection System? Describe types of IDS based on method of Detection? [6]

b) Differentiate between Substitution Cipher and Transposition Cipher. [4]

OR

**Q2) a)** What is digital signature? Which security goals are met by signing a document using digital signature? [6]

b) What is malicious code? State few types and how each one damage or disrupt a computer system. [4]

**Q3) a)** Explain Elliptic Curve Cryptography. [6]

b) What is the role of X.509 in cryptography? [4]

OR

**Q4) a)** Describe CBC, ECB, CFB & OFB with the help of block diagram. [6]

b) Solve if  $p = 7$ ,  $q = 17$  using Diffie Hellman algorithm, select  $a = 6$ ,  $b = 4$ . [4]

**Q5) a)** List the steps for risk identification and assessment in risk management for Information Security. [8]

b) What are the types of Laws? Differentiate between Law and Ethics. [8]

OR

**P.T.O.**

- Q6)** a) State the commandments for computer ethics. [8]  
b) What are the objective and pros and cons of Quantitative and Qualitative risk Assessment? [8]
- Q7)** a) Discuss SSL with respect to four phases. [8]  
i) Establish security capabilities  
ii) Server authentication & key exchange  
iii) Client authentication & key exchange  
iv) Finish  
b) Explain IP security protocols AH and IPS. [8]
- OR
- Q8)** a) Explain the types of Cyber - Crimes. [8]  
b) What are challenges in Social engineering? Explain Cyber Stalking? [8]
- Q9)** a) Write a short note on Indian IT act 2000 and amendments in 2008. [9]  
b) Explain working of Proxy Servers and Anonymizers? [9]
- OR
- Q10)** a) What is DoS & DDoS Attacks? Explain with suitable examples? [9]  
b) Write short note on any three: [9]  
i) Nmap  
ii) Wireshark  
iii) Nikito  
iv) Metasploit  
v) Aircrack

