Total No. of Questions : 10]

SEAT No. :

P3993

[Total No. of Pages : 2

[5561]-700

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

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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 EPS. **[8]**

<div align="center">OR</div>

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]**

<div align="center">OR</div>

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

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