## [5670]-710
## B.E. (Computer Engg.)
## INFORMATION AND CYBER SECURITY
### (2015 Course) (Semester - II) (410251) (End Sem)

*Time : 2½ Hours]*                                               *[Max. Marks : 70*

*Instructions to the candidates:*

    *1)*   *Answer Q1 or Q2, Q3 or Q4, Q5 or Q6, Q7 or Q8, Q9 or Q10.*

    *2)*   *Neat diagrams must be drawn whenever necessary.*

    *3)*   *Figures to the right indicate full marks.*

    *4)*   *Assume suitable data, if necessary.*

*Q1)* a)   Describe linear and differential cryptanalysis with suitable example   **[5]**

     b)   Distinguish between Substitution and transposition ciphers   **[5]**

**OR**

*Q2)* a)   Explain Operational model of security in detail.   **[5]**

     b)   What is Transposition Cipher? Use Transposition Cipher to encrypt the plain text "WE ARE THE BEST" use key "HEAVEN"   **[5]**

*Q3)* a)   Explain digital signature standard.   **[5]**

     b)   Describe Elliptic Curve Cryptography   **[5]**

**OR**

*Q4)* a)   What is Block cipher? Explain counter mode of block cipher.   **[5]**

     b)   Write note on application and limitation of stenography.   **[5]**

*Q5)* a)   What is Backdoors and Key Escrow in PGP?   **[9]**

     b)   Describe IPsec protocol with its components and security services. **[8]**

**OR**

*Q6)* a)   Explain OAKLEY key determination protocol.   **[9]**

     b)   Explain Secure Electronic Transaction in detail.   **[8]**

*Q7)* a)   Describe briefly how IPsec works and enlist its applications. Distinguish between tunnel and transport mode of IPsec.   **[8]**

     b)   Explain in detail password management practices.   **[9]**

**OR**

*Q8)* a) What are various types of firewall? Discuss limitations of firewall. **[9]**

b) Explain need and challenges of intrusion detection system. Define signature based IDS. **[8]**

*Q9)* a) Discuss PII confidentiality safeguards. **[8]**

b) What is cyber stalking? How to identify and detect cyber stalking. **[8]**

OR

*Q10)* a) Explain personally identifiable information PII. Describe PII impact levels with examples **[8]**

b) Write note on Information Protection Law: Indian perspective **[8]**

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