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**Eighth Semester B.E. Degree Examination, Dec.2019/Jan.2020**  
**Information and Network Security**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any FIVE full questions, selecting  
at least TWO questions from each part.**

**PART – A**

- 1 a. Explain the three types of security policies defined in planning security. (10 Marks)  
b. Describe the major steps involved in contingency planning with neat diagram. (10 Marks)
- 2 a. What are firewalls? Explain the processing modes of firewalls. (06 Marks)  
b. Give the best practices for firewall. (06 Marks)  
c. How do you protect remote connections? Explain. (08 Marks)
- 3 a. List the organizational requirements and constraints involved in designing Intrusion Detection System (IDS) (06 Marks)  
b. Compare Honey pots, Honey nets and padded cell systems. (06 Marks)  
c. How to deploy and implement IDS? Explain. (08 Marks)
- 4 a. Define Cryptography, Cryptosystems and Cryptanalysis. (06 Marks)  
b. Compare substitution ciphers with transposition ciphers. (06 Marks)  
c. Describe any two types of Cryptographic tools. (08 Marks)

**PART – B**

- 5 a. Compare Kerberos version 4.0 with 5.0. (06 Marks)  
b. Describe the various security mechanisms defined in X.800 services. (06 Marks)  
c. Explain the modes network security with the aid of diagram. (08 Marks)
- 6 a. What is PGP? Explain the PGP cryptographic functions with neat diagrams. (10 Marks)  
b. Explain the MIME content types of S/MIME functionalities. (10 Marks)
- 7 a. Give the application and benefits of IP security. (06 Marks)  
b. How the Oakley key determination protocol is different from Diffie – Hellman algorithm? Explain. (06 Marks)  
c. Explain Authentication Header and ESP protocol with formats. (08 Marks)
- 8 a. Explain SSL protocol architecture in detail. (10 Marks)  
b. What is SET? Explain how the cardholder sends purchase request via SET. (10 Marks)

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