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10CS/IS835

**Eighth Semester B.E. Degree Examination, June/July 2017****Information and Network Security**

Time: 3 hrs.

Max. Marks:100

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

**PART – A**

- 1 a. Explain the term policy, standard and practice with respect to information security with a neat diagram. (08 Marks)  
b. Describe in details the major steps in contingency planning with a diagram. (12 Marks)
- 2 a. What is a firewall? Discuss the categorization methods of firewall. (12 Marks)  
b. What is Virtual Private Networks (VPN)? Explain two modes of a VPN. (08 Marks)
- 3 a. Bring out the different types of intrusion detection system (IDSs), with their advantages and disadvantages. (10 Marks)  
b. Define:  
i) False negative  
ii) False positive  
iii) Site policy  
iv) Alarm filtering. (04 Marks)  
c. Explain Honey pots, Honey nets and padded cell systems. (06 Marks)
- 4 a. Encipher the text message “VISVESVARAYA TECH VERSITY” with one-time pad text “JNANA SANGAMA KARNATAKA ST” using Vernam cipher technique. (10 Marks)  
b. Explain the different attack on cryprosystem. (10 Marks)

**PART – B**

- 5 a. Discuss the different security attack. (10 Marks)  
b. Explain in detail the X.509 certificates format with a diagram. (10 Marks)
- 6 a. Discuss the services of pretty good privacy (PGP). (10 Marks)  
b. Explain the Multipurpose Internet Mail Extension (MIME) content type. (05 Marks)  
c. Briefly explain the S/MIME functionality. (05 Marks)
- 7 a. With a diagram, explain the authentication header of IPSec packet. (10 Marks)  
b. Discuss the transport and tunnel modes of operation in Encapsulating Security Payload (ESP). (10 Marks)
- 8 a. Explain the four phase of handshake protocol action in Secure Socket Layer (SSL). (10 Marks)  
b. Discuss the key features and components of Secure Electronic Transaction (SET). (10 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.  
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.