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06CS/IS835

# Eighth Semester B.E. Degree Examination, May/June 2010

## 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 Pipkin's three categories of incident indicators. **(12 Marks)**
b. Explain the ISO/IEC 270 01 : 2005 plan –DO-Check-Act cycle. **(08 Marks)**

2 a. Explain the firewall rules. **(10 Marks)**
b. Explain the screened subnet firewall. **(10 Marks)**

3 a. How does a signature-based IDPs differ from a behaviour based IDPs? **(10 Marks)**
b. Explain the venerability scanners. **(10 Marks)**

4 a. What are the differences between digital signature and digital certificate? **(10 Marks)**
b. Explain the two methods of encrypting plaintext. **(10 Marks)**

### PART – B

5 a. What are the differences between active and passive security attacks? **(05 Marks)**
b. Explain the different authentication procedures in X.509 certificate. **(09 Marks)**
c. Write the summary of Kerberos version five message exchange. **(06 Marks)**

6 a. With a neat diagram, explain the digital signature service provided by PGP. **(10 Marks)**
b. Explain the different MIME content types. **(10 Marks)**

7 a. Explain the format of an ESP packet in IP security. **(07 Marks)**
b. Why does ESP include a padding field? **(03 Marks)**
c. Give an example of an aggressive Oakley key. **(10 Marks)**

8 a. Explain the dual signature in SET protocol. What is its purpose? **(10 Marks)**
b. Explain the different alert codes of TLS protocols. **(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.

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06CS835
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# Eighth Semester B.E. Degree Examination, December 2010
## Information and Network Security

Time: 3 hrs. Max. Marks:100

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

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.

### PART – A

1 a. Discuss the system specific security policy. How managerial guidance and technical specifications can be used in SysSP? (10 Marks)

b. Who is responsible for a policy management? How a policy is managed? Explain. (10 Marks)

2 a. Explain the major steps specified in BS7799:2 document. How these steps help in security planning? (10 Marks)

b. What is a firewall? Show the working of a screened host and dual homed firewalls. (10 Marks)

3 a. How a firewall can be configured and managed? Give example. (10 Marks)

b. What is a VPN? Explain the two modes of a VPN. (10 Marks)

4 a. What is an intrusion? Briefly write about the eight IDS terminologies. (10 Marks)

b. What is an encryption? Discuss the symmetric and asymmetric encryption methods. (10 Marks)

### PART – B

5 a. What is meant by information security? Discuss the three aspects of information security. (10 Marks)

b. Briefly explain the three types of security attacks that are normally encountered. Also, distinguish between active and passive attacks. (10 Marks)

6 a. With a schematic figure, explain Kerberos Ver-4 authentication dialogue. Clearly mention various steps. (10 Marks)

b. With flow charts, explain the process of transmission and reception of PGP messages. (10 Marks)

7 a. Give the general structure of IPSEC authentication header. Describe how anti reply service is supported. (10 Marks)

b. With neat diagrams, discuss the basic combinations of security associations. (10 Marks)

8 a. What is SET? Discuss the requirements and key features of SET. (10 Marks)

b. Write short notes on:
i) SSL handshake protocol
ii) SSL alert protocol. (10 Marks)

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