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10CS/IS835

Eighth Semester B.E. Degree Examination, June/July 2018
Information and Network Security

Time: 3 hrs.

Max. Marks:100

Note: Answer any FIVE full questions, selecting atleast TWO questions from each part.

PART – A

- 1 a. With a block diagram, explain how policies, standards, practices, procedures and guidelines are related. (05 Marks)
b. Explain enterprise information security policy and issue specific security policy. (10 Marks)
c. Mention the criteria to be met for the policy to be effective and enforceable. (05 Marks)
- 2 a. Describe the categories of firewalls based on processing modes. (10 Marks)
b. What is VPN? Explain the different modes of VPN. (10 Marks)
- 3 a. Explain the various IDPS detection methods. (10 Marks)
b. What are honey pots, honey nets and padded cell systems? (03 Marks)
c. List the advantages and disadvantages of using honey pots or padded cell. (07 Marks)
- 4 a. Describe symmetric encryption and asymmetric encryption with suitable examples. (06 Marks)
b. Define the following :
i) Authentication
ii) Integrity
iii) Privacy
iv) Non-repudiation. (04 Marks)
c. Explain different types of attacks on cryptosystems. (10 Marks)

PART – B

- 5 a. With a neat diagram explain network security model. Mention the four basic tasks in designing security service. (06 Marks)
b. List the differences between Kerberos version 4 and version 5. (10 Marks)
c. Draw X-509 certificate format. (04 Marks)
- 6 a. With neat diagrams explain PGP authentication and confidentiality functions. (10 Marks)
b. Describe S/MIME functionality. (05 Marks)
c. How are the certificates processed in S/MIME? (05 Marks)
- 7 a. Discuss the Anti-Replay service provided by authentication header of IPsec. (05 Marks)
b. Draw and explain ESP format. What is the significance of padding bytes? (10 Marks)
c. List the features that characterize the Oakley algorithm. (05 Marks)
- 8 a. Explain SSL handshake protocol with a neat diagram. (10 Marks)
b. List the key features of SET. (04 Marks)
c. What is dual signature in SET? Explain with diagram. (06 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.