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10CS/IS835

**Eighth Semester B.E. Degree Examination, Aug./Sept. 2020**  
**Information and Network Security**

Time: 3 hrs.

Max. Marks: 100

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

**PART – A**

- 1 a. Define policy. Discuss the system specific security policy. (10 Marks)  
b. Explain the major steps specified in BS7799 : 2 document. Show these steps help in security planning. (10 Marks)
- 2 a. What is a firewall? Explain categories of firewall based on processing mode. (10 Marks)  
b. What are virtual private networks? Explain different modes of a VPN. (10 Marks)
- 3 a. What is an intrusion? Explain briefly about any eight IDPS terminologies. (10 Marks)  
b. Write short note on Honey pots, Honey nets 2 Dadded cell system. (06 Marks)  
c. Briefly explain the need of operating system detection tools. (04 Marks)
- 4 a. Define cryptography. Explain briefly principles of cryptography. (10 Marks)  
b. Who can attack cryptosystems? Discuss different categories of attacks on cryptosystems. (10 Marks)

**PART – B**

- 5 a. What are different security mechamsins? Briefly explain them. (10 Marks)  
b. With neat diagram, explain network security model. (06 Marks)  
c. Distinguish between active and passive attacks. (04 Marks)
- 6 a. With flow charts, explain the process of transmission and reception of PGP messages. (10 Marks)  
b. Describe S/MIME functionality. (05 Marks)  
c. Explain S/MIME certificate processing method. (05 Marks)
- 7 a. Explain IP security architecture with diagram. (10 Marks)  
b. With neat diagram, discuss the basic combinations of security associations. (10 Marks)
- 8 a. Write short notes on :  
i) SSL handshake protocol  
ii) SSL alert protocol. (10 Marks)  
b. List out the key features of secure electronic transaction and explain in detail. (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.