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10CS/IS835

**Eighth Semester B.E. Degree Examination, Dec.2017/Jan.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. Describe an EISP and its components. (10 Marks)  
b. Define policy and explain issue specific security policy. (10 Marks)
- 2 a. What is firewall? Explain the dual homed host firewall. (10 Marks)  
b. Define virtual private network. Explain different techniques to implement a virtual private network. (10 Marks)
- 3 a. Describe network based intrusion detection and prevention system. (10 Marks)  
b. Explain the different types of IDP systems detection methods. (10 Marks)
- 4 a. Define cipher method. Explain vernam cipher method with example. (10 Marks)  
b. Discuss different categories of attacks on cryptosystems. (10 Marks)

**PART – B**

- 5 a. Discuss the security services. (10 Marks)  
b. Briefly discuss the difference between Kerberos version 4 and Kerberos version 5. (10 Marks)
- 6 a. With a neat diagram, explain authentication and confidentiality of PGP. (10 Marks)  
b. Explain S/MIME content types. (05 Marks)  
c. Describe S/MIME functionality. (05 Marks)
- 7 a. Explain the architecture of the IPsec and discuss the role of security associations. (10 Marks)  
b. With neat diagram, explain IPsec ESP format. (05 Marks)  
c. Mention the important features of Oakley algorithm. (05 Marks)
- 8 a. Discuss the SSL protocol stack. (05 Marks)  
b. Explain key features of SET. (05 Marks)  
c. Describe the components of SET, with diagram. (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.