

**P.E.S. College of Engineering, Mandya - 571 401***(An Autonomous Institution affiliated to VTU, Belagavi)***Seventh Semester, B.E. - Information Science and Engineering****Semester End Examination; February - 2022****Information and Network Security**

Time: 3 hrs

Max. Marks: 100

Course Outcomes*The Students will be able to:**CO1: Understand the Structure of Security framework and Its Blueprints.**CO2: Analyze the different Security technologies used.**CO3: Understand the basic standards of Network Security.**CO4: Understand the basics of IP Security.**CO5: Identify the various Threats in Web Security.***Note: I) PART - A is compulsory. Two marks for each question.****II) PART - B: Answer any Two sub questions (from a, b, c) for Maximum of 18 marks from each unit.**

Q. No.	Questions	Marks	BLs	COs	POs
I : PART - A		10			
I a.	List the criteria that should meet for a policy to be effective.	2	L1	CO1	PO1
b.	Why use an IDPS? Give two reasons.	2	L2	CO2	PO2
c.	Give two specific authentication services which are defined in X.800.	2	L2	CO3	PO1
d.	List two functionality in tunnel mode and transport mode.	2	L2	CO4	PO1
e.	List the three categories in a virus classification by target.	2	L1	CO5	PO1
II : PART - B		90			
UNIT - I		18			
1 a.	Discuss Enterprise Information Security Policy (EISP) and their components.	9	L1,2	CO1	PO1
b.	Define Firewall. Explain the three subsets of packet filtering firewalls.	9	L2	CO1	PO2
c.	Discuss about the major process steps involved in developing the blueprint for the information security program.	9	L2	CO1	PO1
UNIT - II		18			
2 a.	Explain Intrusion Detection Prevention System (IDPS) detection methods that dominate.	9	L2	CO2	PO2
b.	List the strengths and limitations of IDPS.	9	L2	CO2	PO1
c.	Define Encryption. With example, explain asymmetric encryptions.	9	L2	CO2	PO1
UNIT - III		18			
3 a.	Explain categories of active attacks.	9	L1	CO3	PO1
b.	With diagram, discuss network access security model.	9	L1	CO3	PO1
c.	Summarize for four different functions and algorithm used by pretty good privacy.	9	L1	CO3	PO1

UNIT - IV

18

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| 4 a. List the three functional areas of IPSec documents. Explain the categorization of IPSec documents. | 9 | L2 | CO4 | PO5 |
| b. Explain the security association database parameters. | 9 | L2 | CO4 | PO2 |
| c. Define security association bundle. Discuss about the basic combinations of security associations. | 9 | L2 | CO4 | PO5 |

UNIT - V

18

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| 5 a. Discuss comparison of threats on the web. | 9 | L2 | CO5 | PO1 |
| b. With diagram, explain SSL protocols stack. | 9 | L2 | CO5 | PO2 |
| c. Discuss nature of viruses along with four phases. | 9 | L2 | CO5 | PO1 |

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