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P.E.S. College of Engineering, Mandya - 571 401
(An Autonomous Institution affiliated to VTU, Belagavi)
First Semester, M. Tech - Computer Science and Engineering (MCSE)
Semester End Examination; June - 2022
Information and Cyber Security

Time: 3 hrs   *Max. Marks: 100*

Course Outcomes

The Students will be able to:

CO1: Describe information security issues, planning and legal issue, cybercrime, legal perspectives and identify different types of attacks.

CO2: Analyze information security challenges, mobile devices and information systems access in the cyber crime world and use tools and methods used in cyber crime.

CO3: Describe and Analyze cyber crime and offences. Demonstrate phishing, identity theft and illustrate the challenges faced in punishing the cyber criminals.

CO4: Summarize the fundamental concepts in cyber forensics.

CO5: Implement tools used for the forensics of hand-held devices and develop data privacy and security best practices essential for organizations.

*<u>Note:</u> I) Answer any **FIVE** full questions, selecting **ONE** full question from each unit.*

    *II) Any **THREE** units will have internal choice and remaining **TWO** unit questions are compulsory.*

    III) Each unit carries 20 marks.   IV) Missing data, if any, may suitably be assumed.

Q. No.	Questions	Marks	BLs	COs	POs
	UNIT - I				
1 a.	Explain in brief the critical components of Information.	10	L6	CO1	
b.	Explain in brief the need for information security for an organization.	10	L2	CO1	
	OR				
1 c.	What is an Attack? Explain any four major types of attacks used against controlled systems.	10	L2	CO1	
d.	Explain in brief the components of an information security.	10	L1	CO1	
	UNIT - II				
2 a.	Explain in brief the components of an ISSP.	10	L2	CO2	
b.	Explain in brief the mechanisms on which access control approaches rely on.	10	L3	CO2	
	OR				
c.	Explain in brief the following firewall architectures: i) Dual homed firewalls ii) Screened subnet firewalls	10	L2	CO2	
	UNIT - III				
3 a.	What is cyber crime? Explain any three major categories of cyber crimes.	10	L1,6	CO3	
b.	Explain in brief the global perspective on cyber crimes.	10	L6	CO3	

UNIT - IV

4 a. Explain in brief the security challenges imposed by mobile devices.   10   L2   CO4

   b. Explain in brief Trojan Horses and backdoors and virus and worms.   10   L2   CO4

OR

   c. Explain in brief the organizational measures for handling mobile device related security issues.   10   L2   CO4

   d. Explain in brief DOS and DDOS attacks.   10   L2   CO4

UNIT - V

5 a. Explain in brief forensics auditing and anti forensics.   10   L2   CO5

   b. Explain in brief the cost of cyber crimes and IPR issues.   10   L2   CO5

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