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# B.M.S. College of Engineering, Bengaluru-560019

Autonomous Institute Affiliated to VTU

## January / February 2025 Semester End Main Examinations

**Programme: B.E.**

**Semester: VII**

**Branch: Information Science and Engineering**

**Duration: 3 hrs.**

**Course Code: 22IS7HSCSL**

**Max Marks: 100**

**Course: Cyber Security and Cyber Law**

**Instructions:** 1. Answer any FIVE full questions, choosing one full question from each unit.  
2. Missing data, if any, may be suitably assumed.

<b>UNIT - I</b>			<b>CO</b>	<b>PO</b>	<b>Marks</b>	
<b>Important Note:</b> Completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages. Revealing of identification, appeal to evaluator will be treated as malpractice.	1	a)	“Risk shall be properly understood in order to drive appropriate assurance decisions”, Justify how this principle focuses on addressing the challenges in achieving desired level of confidence for software assurance	CO2	PO6	<b>6</b>
		b)	List the pervasiveness and consequences of software vulnerabilities	CO1	PO5	<b>6</b>
		c)	Analyze the principles for Software Assurance that focus on protection mechanisms	CO2	PO5	<b>8</b>
<b>OR</b>						
	2	a)	Describe various definitions of Lifecycle Assurance and Compare various definitions of software assurance specified from various sources	CO1	PO8	<b>10</b>
		b)	Analyze and explain in detail the following case studies: - (i) A real system for issuing emergency alerts (ii) A fictitious automobile manufacturer with realistic problems	CO2	PO6	<b>10</b>
<b>UNIT - II</b>						
	3	a)	Analyze the different techniques using which cybercrimes are planned and executed	CO2	PO6	<b>6</b>
		b)	Elaborate on the Global Perspective on Cybercrimes along with its significant developments	CO3	PO6	<b>6</b>
		c)	Define Software Piracy and analyze the various impacts of Software Piracy with relevant diagram	CO2	PO6	<b>8</b>
<b>OR</b>						
4	a)	Differentiate cybercrime with terrestrial crime and analyze the different types of attack in cybercrimes	CO2	PO6	<b>6</b>	

	b)	List and explain the different classifications of Cyber crimes	CO2	PO6	<b>6</b>
	c)	Elaborate in detail Cyberdefamation as specified in IPC Section 499 and describe the law on defamation in brief	CO1	PO8	<b>8</b>
<b>UNIT - III</b>					
5	a)	Define Software Vulnerability. List at least five software vulnerabilities. Analyze how Machine learning can be used in identifying and fixing these vulnerabilities	CO1	PO5	<b>10</b>
	b)	Explain in detail about DoS and DDos Attack detection.	CO2	PO6	<b>10</b>
<b>OR</b>					
6	a)	Describe the features used in various ML-based detection algorithms in Phishing page detection	CO2	PO6	<b>10</b>
	b)	List and Explain the different characteristics of a biometric trait that has to be taken into consideration	CO2	PO6	<b>10</b>
<b>UNIT - IV</b>					
7	a)	Design a scenario where Section 67 of IT Act 2000 is applicable , elaborate on the IPC Section that handles it.	CO1	PO6	<b>6</b>
	b)	Elaborate on the Amendments made to the Bankers Book Act 1891	CO2	PO8	<b>6</b>
	c)	Justify as to why cyber law is needed in India.	CO2	PO6	<b>8</b>
<b>OR</b>					
8	a)	Identify and explain the section that penalizes for breach of confidentiality and privacy	CO2	PO6	<b>6</b>
	b)	Describe each of the terms mentioned below with respect to IT Act2000 (i) Subscriber (ii) Electronic Gazette (iii) Originator	CO1	PO8	<b>6</b>
	c)	Elaborate on the UNCITRAL Model Law in Electronic Commerce	CO2	PO6	<b>8</b>
<b>UNIT - V</b>					
9	a)	Elaborate on processing of personal data of children	CO3	PO12	<b>10</b>
	b)	Describe the following: (i) Right to correction and erasure of personal data (ii) Right of grievance redressal	CO3	PO12	<b>10</b>
<b>OR</b>					
10	a)	Discuss the additional obligations of Significant Data Fiduciary	CO3	PO12	<b>10</b>
	b)	Elaborate on the Power to make rules in detail	CO3	PO12	<b>10</b>