

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

MCA DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2025

Second Semester

Master of Computer Applications

MC4205 / PMCT2425 - Cyber Security

Regulations – 2021/2024

Duration : 3 Hrs

Maximum : 100 Marks

PART – A (ANSWER ALL QUESTIONS) (Marks 10*2=20)

Q.No	Questions	BLT	CO	Marks
1.	Define Security Governance Principles.	L2	1	2
2.	What is the Bell-La Padula Model in Security Models?	L1	1	2
3.	How does Human Resource Security contribute to an organization's overall cyber security strategy?	L1	2	2
4.	What is the significance of incorporating security into the SDLC?	L1	2	2
5.	What role do firewalls play in protecting a network from unauthorized access?	L1	3	2
6.	What is the purpose of the OWASP ZAP tool?	L1	3	2
7.	How does Cloud Security protect data and applications in cloud environments?	L1	4	2
8.	Define Intrusion Detection.	L2	4	2
9.	What is Security Monitoring?	L1	5	2
10.	What is the significance of Security Audits?	L1	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*16 = 80)

Q.No	Questions	BLT	CO	Marks
11.	a i Analyze the key components of Security Governance and how they contribute to an organization's cyber security strategy.	L4	1	8
	i Classify the process of Information Risk Management, focusing on Asset Identification, Threat Identification, and Vulnerability Identification.	L4	1	8
	Or			
	b Compare the Bell-La Padula Model, Biba Integrity Model, and Chinese Wall Model, and their application in cyber security.	L4	1	16
12.	a Identify why security controls necessary for managing physical assets and mobile devices in an organization.	L3	2	16
	Or			
	b Identify the importance of integrating security in the SDLC and how it helps in mitigating security risks.	L3	2	16

13.	a	Determine the importance of access control in system security and describe different types of access control mechanisms.	L5	3	16
		Or			
	b	Interpret security challenges and solutions in Business Application Management and network security.	L5	3	16
14.	a	Explain the role of cryptographic techniques in securing communications and data.	L2	4	16
		Or			
	b	Summarize the importance of Incident Management and Forensic Investigations in technical security.	L2	4	16
15.	a	Explain the role and importance of Security Audits and Information Risk Reporting.	L2	5	16
		Or			
	b	Interpret the best practices for Security Monitoring and continuous improvement.	L2	5	16