

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

MCA DEGREE END SEMESTER THEORY EXAMINATIONS, NOV /DEC 2024

Second Semester

Master of Computer Applications

MC4205 – Cyber Security

Regulations – 2021

Duration : 3 Hrs

Maximum: 100 Marks

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

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
1.	Define security governance and its importance.	RE	1	2
2.	List the purpose of a security policy.	RE	1	2
3.	What are the key components of human resource security?	RE	2	2
4.	Name the two Information classification and its importance.	RE	2	2
5.	What is meant by system access in a business application?	RE	3	2
6.	Outline the purpose of a firewall.	UN	3	2
7.	Define supply chain management in the context of cybersecurity.	RE	4	2
8.	What is Intrusion detection?	RE	4	2
9.	Define security audit.	RE	5	2
10.	Outline the importance of Information security compliance monitoring.	UN	5	2

PART – B (ANSWER ALL QUESTIONS) (Marks 5*13 = 65)

<i>Q.No</i>	<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
11.	a Explain the key components of security governance and the steps involved in Information risk management. Or	UN	1	13
	b Illustrate the Bell-LaPadula model and compare it with the Biba Integrity model.	UN	1	13
12.	a Explain the role of security awareness and education in people management. Or	UN	2	13
	b Illustrate how security can be incorporated into the System Development Life Cycle (SDLC) and the importance of disaster management.	UN	2	13
13.	a Describe various authentication mechanisms and analyze their effectiveness in business applications. Or	UN	3	13
	b Explain network security management concepts and the role of OWASP in identifying vulnerabilities in applications.	UN	3	13

14.	a	Illustrate the cloud security and analyze its significance in protecting data and applications.	UN	4	13
		Or			
	b	Explain cryptographic techniques and their role in malware protection.	UN	4	13
15.	a	Analyze the security performance assessment and its importance in improving cyber security posture.	AN	5	13
		Or			
	b	Analyze the best practices for security monitoring and the role of security audits.	AN	5	13

*PART – C (Marks 1*15 = 15)*

<i>Q.No</i>		<i>Questions</i>	<i>BLT</i>	<i>CO</i>	<i>Marks</i>
16.	a	Examine the different firewall types and risk determination.	AP	1	15
		Or			
	b	Analyze the effectiveness of different authentication mechanisms in securing a corporate business application. Considering potential vulnerabilities, discuss the role of access control and system management in enhancing the security of end-user-developed applications. Provide examples of challenges that may arise when implementing these controls and suggest solutions to address them.	AP	3	15