

THE KAVERY ENGINEERING COLLEGE*(An Autonomous Institution)***MCA DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL/MAY 2026****Third Semester****Master of Computer Applications****MC4302/PMCT2432-INTERNET OF THINGS****Regulations – 2021 / 2024****Duration : 3 Hrs****Maximum : 100 Marks****PART – A(ANSWER ALL QUESTIONS) (Marks 10*2=20)**

Q.No	Questions	BTL	CO	Marks
1.	Define Internet of Things and list its four key building blocks.	L1	1	2
2.	What is meant by Cloud Computing	L2	1	2
3.	What is the primary function of WSN Protocol	L2	2	2
4.	Name any two sensors and two actuators used in IoT	L1	2	2
5.	What is Arduino in IoT?	L2	3	2
6.	What is the difference between I2C and SPI protocols?	L4	3	2
7.	Why is a cloud platform essential for large-scale IoT deployments?	L2	4	2
8.	What are the three ways of security?	L2	4	2
9.	What is the main purpose of Hydra?	L1	5	2
10.	What is an example of a brown field project?	L1	5	2

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

Q.No	Questions	BTL	CO	Marks
11. a	i Explain the architecture of IoT communication model with a neat diagram	L2	1	8
	ii Discuss the evolution of IoT level and templates on modern society	L2	1	8
Or				
b	i Describe the role of sensors and actuators in the IoT ecosystem with suitable	L2	1	8
	ii Discuss about Embedded systems with an example	L2	1	8
12. a	i Examine BACNet and Modbus Protocols with an example	L4	2	8
	ii Analyze the differences between IoT, M2M, and WSN protocols	L4	2	8
Or				
b	i Differentiate between the Zigbee layer and Network Layer	L4	2	10
	ii Examine the Issues with IoT standardization. Discuss	L4	2	6
13. a	i Write a Python program for a Raspberry Pi parking assistant	L2	3	8
	ii Discuss about External gadgets of IoT physical Devices	L2	3	8
Or				
b	i Compare and contrast the SPI and I2C communication interfaces	L2	3	8
	ii Discuss on digital input reading from a pin in an Arduino program. Give suitable example	L2	3	8

14.	a	i	What are the contributions of FP7 projects toward IoT privacy and security?	L2	4	8
		ii	How smart cities harness IoT for urban development?	L2	4	8
	Or					
	b	i	What are some examples of security? What's the future of IoT security?	L2	4	6
ii		Discuss about the threats to Security and Privacy of IoT Devices	L2	4	10	
15.	a	i	Describe about smart factory of the future and how do you create one?	L2	5	8
		ii	Explain the purpose of middleware in IT infrastructure?	L2	5	8
	Or					
	b	i	Discuss about different types of IoT platforms with an example	L2	5	10
ii		Explain about benefits of IoT in Smart applications	L2	5	6	
