

THE KAVERY ENGINEERING COLLEGE
(An Autonomous Institution)

MCA DEGREE END SEMESTER THEORY EXAMINATIONS, APRIL-MAY 2025

Third Semester

Master of Computer Applications

MC4302 - Internet of Things

Regulations – 2021

Duration : 3 Hrs

Maximum : 100 Marks

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

Q.No	Questions	BLT	CO	Marks
1.	List out the Features of IoT.	L1	1	2
2.	What is the role of controller service in an IoT system?	L1	1	2
3.	Write down the components of IEEE 802.15.4 Protocol Stack.	L1	2	2
4.	How does Zigbee protocol work?	L1	2	2
5.	What is Raspbian OS?	L1	3	2
6.	In What ways Raspberry Pi is better than Arduino?	L1	3	2
7.	What are FP7 Projects?	L1	4	2
8.	Why Data Aggregation needed for IoT application?	L1	4	2
9.	Define smart manufacturing.	L1	5	2
10.	What is a middleware in IoT?	L1	5	2

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

Q.No	Questions	BLT	CO	Marks
11.	a Develop an Example of IoT services that uses publish subscribe communication model.	L3	1	16
	Or			
	b Identify Prototyping for Embedded devices in IoT.	L3	1	16
12.	a i Explain M2M and WSN protocols.	L2	2	8
	ii Explain Unified Data standards.	L2	2	8
	Or			
	b Explain the purpose of BACNet protocol and KNX. Explain in detail.	L2	2	16
13.	a Explain the Python Programming for Raspberry Pi.	L2	3	16
	Or			

	b	Illustrate the Arduino board details and explain the steps for installing the board.	L2	3	16
14.	a	Explain the importance of the terminologies “Trust For IOT” and “Privacy for IOT”.	L2	4	16
		Or			
	b	Explain the vulnerabilities of IoT. What are the IoT security Requirements? Discuss in detail.	L2	4	16
15.	a	Examine any use case example of smart applications of IoT, explain the architecture and technology need in building the application.	L4	5	16
		Or			
	b	Examine an Industrial application of IoT system and brief on the various use case of smart and connected cities.	L4	5	16