

Subject Code: XXXXX

Roll No:

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**BTECH
(SEM-7) INTERNET OF THINGS 2021-22**

TIME:3 HOUR

Total Marks: 100

Instruction: Attempt the questions as per the given instructions. Assume missing data suitably.

SECTION - A

Attempt *All Parts* in Brief

2*10 = 20

Q1	Questions	Marks
(a)	Define internet of things.	2
(b)	Illustrate sources of the IoT with example.	2
(c)	Define M2M communication.	2
(d)	List features of value creation using IoT.	2
(e)	What are communication technologies ?	2
(f)	What is data enrichment and consolidation ?	2
(g)	Compare device centric identity management and hybrid identity management.	2
(h)	What is architectural view ?	2
(i)	What is conceptual framework ?	2
(j)	What is M2M communication ?	2

SECTION - B

Attempt Any Three of the following

3*10 = 30

Q2	Questions	Marks
(a)	Explain industries can benefit from IoT.	10
(b)	Explain the main components of the IoT architecture.	10
(c)	Explain an embedded system on an IoT device.	10
(d)	What are the primary hardware components that make up an embedded system ?	10
(e)	What are some of the main differences between arduino and raspberry Pi ?	10

SECTION - C

Attempt Any One of the following

5*10 = 50

Q3	Questions	Marks
(a)	Explain MAC protocol survey.	10
(b)	Explain IOT application layer protocols : HTTP, CoAP and MQTT.	10
Q4	Questions	Marks
(a)	Outline the four aspects in your business to master IoT.	10
(b)	Explain survey routing protocols.	10
Q5	Questions	Marks
(a)	Explain programming the arduino for IoT.	10
(b)	Outline the IoT layers with their responsibilities in SMARTIE project.	10
Q6	Questions	Marks
(a)	Explain designing of smart street lights in smart city.	10
(b)	Explain interoperability in detail. Why it is essential in IOT?	10
Q7	Questions	Marks
(a)	Explain smart metering and E-health	10
(b)	Describe communicating data with H/W units.	10

