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# BTECH (SEM VII) THEORY EXAMINATION 2023-24 MOBILE APPLICATION DEVELOPMENT FOR IOT

TIME: 3 HRS M.MARKS: 100

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

#### **SECTION A**

#### 1. Attempt all questions in brief.

Qno.	Question	Marks	CO
a.	Enlist the different display devices used in IoT.	2	1
b.	Define LDR and its application in IoT.	2	1
c.	Discuss the working principle of MQ2 sensor.	2	2
d.	Define Blynk app and its application.	2	2
e.	What is cloud IoT?	2	3
f.	Define optimization in IoT product development.	2	3
g.	Enlist the merits of master and slave module.	2	4
h.	Discuss the application of ThingSpeak.	2	4
i.	What do you mean by IoT warehouse?	2	5
j.	Discuss the features of IoT warehouse monitoring system.	2	5

#### SECTION B

### 2. Attempt any *three* of the following:

a.	Explain the gas level detection in IoT system.	10	1
b.	Write a program to display the temperature values on 16 *2 LCD display in Arduino. Also, draw the pin out of 16*2 LCD display.	10	2
c.	Explain the different types of customizations and optimization routine followed in IoT product hardware development.	10	3
d.	Explain the Bluetooth communication between master and slave module in detail.	10	4
e.	Discuss the different way of packaging of IoT product in detail.	10	5

### SECTION C

### 3. Attempt any *one* part of the following:

a.	Discuss, how Blynk app is used in IoT? Explain step by step.	10	1
b.	Explain, how GPS tracking device interfaced with IoT Board?	10	1

#### 4. Attempt any *one* part of the following:

	a.	How temperature and gas sensor can be used together in an IoT system? Explain in detail.	10	2
I	b.	Explain the interfacing of Nokia 5110 in IoT system with suitable diagram in detail.	10	2

## 5. Attempt any *one* part of the following:

a.	Explain the different product realization techniques in IoT product development in detail.	10	3
b.	Draw and explain the flowchart of IoT warehouse monitoring system.	10	3

## 6. Attempt any *one* part of the following:

a. Ex	xplain the mechanism which is used in storing data on google sheet in detail.	10	4
	befine Thing Speak Cloud? How Thing Speak cloud is used in data visualization in the IoT ystem? Discuss in detail.	10	4

## 7. Attempt any *one* part of the following:

a.	Explain the main components of warehouse monitoring system in detail.	10	5
b.	Which packaging type is most used in IoT product? And why? Discuss in detail.	10	5