Code No: P18CBT02

HALL TICKET NUMBER

PACE INSTITUTE OF TECHNOLOGY & SCIENCES::ONGOLE
(AUTONOMOUS)
III B.TECH I SEMESTER END REGULAR EXAMINATIONS, DEC/JAN – 2022/23
IOT DEVICES
(CSE(IOTCSBT) Branch)

Time: 3 hours   Max. Marks: 60

Note: Question Paper consists of Two parts (Part-A and Part-B)

PART-A

Answer all the questions in Part-A (5X2=10M)

Q.No.		Questions	Marks	CO	KL
1.	a)	List the fundamental components of IoT.	[2M]	1	
	b)	Name the microcontroller used in Arduino UNO.	[2M]	2	
	c)	List the various categories of faults exceptions in Cortex-M3.	[2M]	3	
	d)	List any four types of Cloud storages.	[2M]	4	
	e)	Name any five types of sensors used in agriculture.	[2M]	5	

PART-B
Answer One Question from each UNIT (5X10=50M)

Q.No.		Questions	Marks	CO	KL
		UNIT-I			
2.	a)	Discuss the design objectives of IoT architecture.	[5M]	1	
	b)	Describe the characteristics of IoT.	[5M]	1	
		OR			
3.	a)	Distinguish the difference between M2M and IoT.	[5M]	1	
	b)	Explain the role of Business process in IoT.	[5M]	1	
		UNIT-II			
4.	a)	Discuss the working procedure of debugging in Arduino.	[5M]	2	
	b)	Analyze the features of Raspberry PI.	[5M]	2	
		OR			
5.	a)	Explain Raspberry Pi hardware with the help of a diagram.	[5M]	2	
	b)	Develop the code to control a LED with a Switch using Arduino.	[5M]	2	
		UNIT-III			
6.	a)	Explain the Memory access instructions in Cortex-M Devices.	[5M]	3	
	b)	Describe a typical clock tree of a Cortex M core microcontroller.	[5M]	3	
		OR			
7.	a)	Describe the various Registers and Special Registers in Cortex M3	[5M]	3	
	b)	List out the Permissions used in ARM Cortex M3 processor.	[5M]	3	
		UNIT-IV			
8.	a)	List the cloud computing Features and its advantages.	[5M]	4	
	b)	Explain the Characteristics of cloud computing.	[5M]	4	
		OR			
9.	a)	Give Example of Event Driven device Data.	[5M]	4	
	b)	Define the following (i) Data Acquisition (ii) Device management software.	[5M]	4	
		UNIT-V			
10.	a)	Why Raspberry Pi is so popular development platform for IoT prototyping.	[5M]	5	

	b)	Develop a PIR module which constantly monitoring the Home or Workspace.	[5M]	5	
OR
11.	a)	Develop any one module for remote controlled operation of home automation systems.	[5M]	5	
	b)	Develop any one module for Smoke/Gas leakage monitoring system.	[5M]	5	

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