

Reg No.: _____

Name: _____

APJ ABDUL KALAM TECHNOLOGICAL UNIVERSITY

Eighth semester B.Tech degree examinations, September 2020

Course Code: EE472**Course Name: Internet of Things**

Max. Marks: 100

Duration: 3 Hours

PART A*Answer all questions, each carries 5 marks.*

		Marks
1	Explain the major components of IoT.	(5)
2	Explain the constrained RESTful Environment (CoRE) used in IoT.	(5)
3	Classify Cloud Deployment Models.	(5)
4	Explain the Wireless Sensor Network (WSN) technology.	(5)
5	Describe the Boot loader function.	(5)
6	Write the features of Raspberry Pi 2 Model B+.	(5)
7	List the tasks of a weather monitoring service.	(5)
8	How the Internet of Things is used in smart city applications.	(5)

PART B*Answer any two full questions, each carries 10 marks.*

9	a) How does M2M relate to IoT? What are the differences between the two? Draw the M2M architecture.	(6)
	b) Explain any two application areas of IoT.	(4)
10	a) Explain any one architectural view of IoT with relevant block diagram.	(6)
	b) Explain and compare IPv4 and IPv6 protocols.	(4)
11	a) Discuss various web communication protocols for connected devices in an IoT environment.	(6)
	b) Differentiate between constrained and unconstrained communication environments.	(4)

PART C*Answer any two full questions, each carries 10 marks.*

12	a) What is Data Analytics? Explain the three phases of analytics.	(5)
	b) What is meant by Big Data? Give one example.	(5)
13	a) Comment on the significance of Atomicity, Consistency, Isolation and Durability (ACID rules) in database transactions?	(5)
	b) How is the distance measured using Infrared sensors?	(5)
14	a) How are actuators important in an IoT environment? Give two examples.	(5)
	b) Briefly explain any three sensor data communication protocols.	(5)

PART D

Answer any two full questions, each carries 10 marks.

- 15 a) Briefly explain the various types of embedded softwares. (6)
- b) Why API's are used for communicating with application/service at both server and client ends? (4)
- 16 a) Explain with a neat diagram how things, sensors, actuators, devices and circuit boards are connected to internet and cloud or web-server for applications and services. (6)
- b) Explain the domains architecture reference model in the home automation system in IoT. (4)
- 17 a) Explain steps in designing a supply chain monitoring system-connected RFID system? (5)
- b) Discuss the applications of IoT in smart agriculture. (5)
