

Enrolment No./Seat No_____

GUJARAT TECHNOLOGICAL UNIVERSITY

BE - SEMESTER–VIII (NEW) EXAMINATION – SUMMER 2024

Subject Code:2180709

Date:14-05-2024

Subject Name:IOT and Applications

Time:10:30 AM TO 01:00 PM

Total Marks:70

Instructions:

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.
4. Simple and non-programmable scientific calculators are allowed.

	MARKS
Q.1 (a) What is IoT? Write Applications of it.	03
(b) List out security threats in the context of IoT.	04
(c) Briefly explain basic building blocks and architecture of IoT.	07
Q.2 (a) What is M2M in the context of IoT?	03
(b) Explain concept of “Smart Cities” in brief.	04
(c) List objective, function and significance of following in brief.	07
1) Device	
2) Actuator	
3) Sensor	
OR	
(c) What is future factory concept. Explain it in brief.	07
Q.3 (a) Briefly explain on “need of standardization” in the context of IoT.	03
(b) Compare and contrast M2M and IoT architecture.	04
(c) List out major issues and challenges that persist in the context of IoT technologies.	07
OR	
Q.3 (a) What is a web service? Write advantage of it.	03
(b) What is SNMP protocol? List limitations of it.	04
(c) List and explain components of “global value chain” in the context of IoT.	07
Q.4 (a) List out some of the recent research trends in IoT domain.	03
(b) Briefly explain capabilities, limitations and applications of Raspberry Pi.	04
(c) Discuss role an IoT can play in the context of Oil and Gas Industry.	07
OR	
Q.4 (a) What do you mean by “brownfield IoT application development”?	03
(b) Briefly explain how to use “gateway-as-a-service” in deploying IoT application.	04
(c) Discuss enabling technologies for “eHealth” in the domain of IoT.	07
Q.5 (a) List governance issue in the context of IoT.	03
(b) Discuss the role that IoT has played in the domain of “Home Automation”.	04

- (c) Briefly explain different views in the context of IoT reference architecture. **07**

OR

- Q.5** (a) Compare “Data Accumulation” and “Data Abstraction”. **03**
(b) Explain objectives of SMARTIE approach. **04**
(c) How you will ensure following aspects in IoT application? **07**
 1) Security
 2) Privacy
 3) Trust
