

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech Mid-Semester Exam

Semester: 8th Sem
Subject Code: 203113483
Subject Name: Internet of Things

Date: 29/01/2024
Time: (1hr: 30min)
Total Marks: 40

Sr. No.		Marks
Q.1	(A) Five One line Questions 1. State the use of RFID and its operating frequency? 2. How to infer information and knowledge from data? 3. What's the biggest risk associated with the Internet of Things? 4. Is Zigbee efficient than Bluetooth? 5. Why do IoT systems have to be self-adapting and self-configuring?	05
	(B) Five Fill in the blanks 1. is critical concerns in IoT due to the vast amount of personal and sensitive data collected by connected devices. 2. In WiFi, data is typically transmitted using the frequency band. 3. REST, which stands for, is an architectural style for designing networked applications. 4. is a fundamental concept in IoT, where devices communicate directly with each other without human intervention. 5. is a key enabler for IoT, providing scalable and flexible resources for storing and processing data generated by IoT devices.	05
Q.2	Attempt any four(Short Questions)	12
(1)	What is differences between RESTful web services and Websocket services?	
(2)	Compare the characteristics of UDP and TCP as transport layer protocols in IoT.	
(3)	Differentiate OT Network and IT Network	
(4)	Explain the key differences between the two protocols IPv4 and IPv6.	
(5)	Differentiate REST- and Web Socket-based Communication APIs.	
Q.3	Attempt any two questions	08
(1)	Explain Link layer protocol of IoT?	
(2)	Compare COAP, AMQP and MQTT protocols?	
(3)	Explain service models of cloud computing.	
Q.4(A)	Discuss the characteristics of the Internet of Things (IoT) and explain their significance in shaping the landscape of interconnected devices.	05
(B)	Determine the various communication models that can be used for weather monitoring system. Which is a more appropriate model for this system? Describe the Pros and Cons.	05
	OR	
(B)	Determine the IoT levels for designing home automation IoT systems including smart lighting and intrusion detection.	05