

GUJARAT TECHNOLOGICAL UNIVERSITY**BE MINOR - SEMESTER-VI EXAMINATION – SUMMER 2024****Subject Code:116AI01****Date:27-05-2024****Subject Name:IoT Networking technologies and Security****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) Discuss the features of IoT in detail.	03
(b) What are the risk or challenges associated with IoT?	04
(c) Explain the difference between IoT and Wireless Sensor Network.	07
Q.2 (a) Write down the difference between AMQP and MQTT protocol.	03
(b) Explain the Architecture of IoT in detail.	04
(c) Explain the Transport Layer Protocol in detail.	07
OR	
(c) Explain various security issues regarding IoT and needs in detail.	07
Q.3 (a) State the difference between IoT and M2M.	03
(b) Explain the term ‘Smart City’ in IoT.	04
(c) How IoT is used in Healthcare System?	07
OR	
Q.3 (a) What are different types of Sensors in IoT?	03
(b) What would happens if our “smart” system was compromised?	04
(c) Connected vehicles are becoming more prevalent, leveraging IoT Technology. What are the major security challenges in today’s modern vehicles?	07
Q.4 (a) Explain the concept of RFID and BLE in detail.	03
(b) List out and explain the most common application of IoT.	
(c) Discuss the Risks, Challenges and Potential solution for the software Defined network.	07
OR	
Q.4 (a) Explain Data Plane and Control Plane in SDN.	03
(b) Discuss Merit and Demerits of Software Defined Network.	04
(c) What do you mean by IoT Gateway? What is the role of gateway in IoT?	07
Q.5 (a) Discuss the platform components of cyber-physical systems?	03
(b) Which are the different phase roadmap to Secure CPS.	04
(c) What are the main challenges in designing and implementing Cyber Physical System?	07
OR	
Q.5 (a) Explain the key features of Cyber-physical systems?	03
(b) What are the challenges to develop a CPS system?	04
(c) Differentiate cyber-physical systems and IoT?	07
