JHARKHAND Rai University
RANCHI

End Semester/Reappear (Semester VII) Examination December, 2024

Programme: B. Tech CSE

Course: Internet of Things **Full Marks: 70**

Course Code: 3TECCS401 **Time: 3 Hrs.**

Enrolment no. _____

Q. No.	Questions	CO	Bloom Taxonomy Category	Marks
	Section I			
1	**Short Answer type questions**			**4 x 5 = 20**
a	Why is IOT considered as a disruptive technology?	CO1	Understand	
	or			
	What is the need of IOT standardization?	CO1	Understand	
b	Define sensing and actuation.	CO2	Remember	
	or			
	What is Near Field Communication (NFC)? Give some main features of NFC.	CO2	Apply	
c	What are the networking protocols in IoT? Give some examples.	CO3	Apply	
	or			
	Define AMQP. Give its applications.	CO3	Understand	
d	Explain the need of a virtual sensor.	CO4	Understand	
	or			
	What is NodeMCU?	CO4	Apply	
	Section II			
Long Answer type questions				**3 x 10 = 30**
2	Explain MAC protocols used in WSN and classify them according to their application areas.	CO2	Understand	
	or			
	Distinguish (a) Z wave and (b) Zigbee with their features.	CO2	Analyze	
3	Examine the salient features of Message Queue Telemetry Transport Protocol. Also differentiate between HTTP and MQTT.	CO3	Analyze	
	or			
	Discuss the data dissemination and gathering protocol.	CO3	Understand	
4	Differentiate between edge, cloud and fog in IoT.	CO4	Analyze	
	or			
	Write the characteristics, usefulness and core functions of an IoT platform.	CO4	Understand	
	Section III			
	Application based questions			**1 x 20 = 20**
5	Describe the following commercial IOT platforms: (i) Amazon Web Services IOT Platform (ii) IBM Watson IOT platform	CO4	Analyze	
	or			
	(a) Define IOT Data visualization? Formulate the major advantages of data visualization platform. (b) Report and describe at least five measures for IOT data security.	CO4	Create	

COURSE OUTCOME

At the end the course the candidate will able to

CO1: Understand general concepts of Internet of Things

CO2: Understand different IoT Architecture and Communication Protocol

CO3: Identify different sensor networks, Networking Protocol which can measure different parameters or activity.

CO4: Learn genesis and impact of IoT applications in the real world.