

**GIET UNIVERSITY, GUNUPUR – 765022**

B. Tech (Sixth Semester Regular) Examinations, May – 2024

21BCSPC36001– Internet of Things

(CSE)

Time: 3 hrs

Maximum: 70 Marks

(The figures in the right hand margin indicate marks)**PART – A****(2 x 5 = 10 Marks)**Q.1. Answer **ALL** questions

	CO #	Blooms Level
a. Describe the working of web socket based communication in IoT.	CO1	K1
b. Write a Arduino code for displaying the name and roll number in 16X2 LCD.	CO3	K2
c. What are the functional blocks of IoT?	CO2	K1
d. Write a Arduino code for measuring the distance of an object.	CO3	K2
e. Note the differences between Flask and Django.	CO4	K1

PART – B**(15 x 4 = 60 Marks)**Answer **ALL** questions

	Marks	CO #	Blooms Level
2. a. Define the term Protocol. Explain different IoT protocols with neat diagram.	10	CO1	K1
b. What do you mean by communication in IoT? Elaborate the Publish – Subscriber and Exclusive Pair Communication models with neat sketch.	5	CO1	K2
(OR)			
c. Classify the different levels in IoT? Explain about the Level -02 and Level-04 IoT System with neat sketch.	8	CO1	K1
d. Summarize the importance of various IoT enabled technologies.	7	CO1	K2
3.a. State the IoT Hardware? Discuss about Arduino Hardware in detail.	7	CO2	K2
b. Interface Arduino with Seven-Segment Display Sensor. Write a Arduino code to display all even numbers (Assume sensor is Common Cathode).	8	CO2	K3
(OR)			
c. Define sensor. Explain about the different sensors used in IoT.	7	CO2	K2
d. What are the boards used in IoT? Summarise the Raspberry-pi with neat sketch.	8	CO2	K3
4.a. Write short note on Data Analytics, Data Integration and Data Acquisition System.	10	CO3	K2
b. Write an Arduino code to display Temperature and Humidity on 16X2 LCD.	5	CO3	K3
(OR)			
c. Compare Cloud Computing and Fog Computing.	7	CO3	K2
d. Explain about the IoT Software implementation challenges.	8	CO3	K1
5.a. Define Framework. Write the steps to create Django project. List the advantages and disadvantages of Django.	8	CO4	K2
b. Write a code for displaying the name of the student using Flask. Describe about all the methods used in the code.	7	CO4	K3
(OR)			
c. Discuss the impact of Internet of Things having on Healthcare sector and energy with a case study.	10	CO4	K3
d. Contrast structured and unstructured data.	5	CO4	K2

--- End of Paper ---