R22 Regulation *Subject code:4P6GC*

TKR COLLEGE OF ENGINEERING AND TECHNOLOGY

(Autonomous, Accredited by NAAC with 'A+' Grade)

B.Tech VI Semester Supplementary Examinations, April 2026

INTERNET OF THINGS
(CSE(AI&ML))

Maximum Marks: 60 Date:23.04.2026 Duration: 3 hours

Note: **1.This question paper contains two parts A and B.**
2. Part A is compulsory which carries 10 marks. Answer all questions in Part A.
3. Part B consists of 5 Units. Answer any one full question from each unit.
4. Each question carries 10 marks and may have a, b, c, d as sub questions.

Part-A

All the following questions carry equal marks (10X1M=10 Marks)		Marks	CO	Bloom Tx
1.a)	Define IoT.	1M	1	L1
b)	What are the functional blocks of IoT?	1M	1	L1
c)	Define M2M. What is the difference between IoT and M2M?	1M	2	L1
d)	What is YANG in IoT?	1M	2	L1
e)	What is the significance of addressing in IoT?	1M	3	L1
f)	Name one IoT identification protocol.	1M	3	L1
g)	Name the components of a Raspberry Pi board.	1M	4	L1
h)	What is the purpose of GPIO pins in Raspberry Pi?	1M	4	L1
i)	What is the role of IoT platforms in system integration?	1M	5	L1
j)	Name one challenge in IoT platform design.	1M	5	L1

Part-B

Answer All the following questions. (5X10M=50Marks)		Marks	CO	Bloom Tx
2	Design a smart home IoT system and explain its components and working.	10M	1	L2
	OR			
3	Compare and contrast the communication models used in IoT.	10M	1	L2
4	Evaluate the role of NFV in IoT and its advantages.	10M	2	L2
	OR			
5	Design an IoT system using SDN and explain its working.	10M	2	L2
6	Evaluate the role of RFID and NFC in IoT applications.	10M	3	L2
	OR			
7	Design an IoT-based industrial monitoring system using wireless communication technologies.	10M	3	L2
8	Evaluate the use of Arduino and Raspberry Pi in industrial IoT applications.	10M	4	L2

	OR			
9	Compare the programming elements of Arduino and Raspberry Pi.	10M	4	L2
10	Propose a new IoT application using Xively Cloud and explain its implementation.	10M	5	L2
	OR			
11	Compare physical servers and cloud offerings for IoT applications.	10M	5	L2