

CMR ENGINEERING COLLEGE: : HYDERABAD**UGC AUTONOMOUS****IV–B.TECH–I–Semester End Examinations (Regular) - December- 2025****INTERNET OF THINGS****(CSE)****[Time: 3 Hours]****[Max. Marks: 60]****Note:** This question paper contains two parts A and B.

Part A is compulsory which carries 10 marks. Answer all questions in Part A.

Part B consists of 5 Units. Answer any one full question from each unit. Each question carries 10 marks and may have a, b, c as sub questions.

PART-A**(10 Marks)**

1. a) List the characteristics of IoT. [1M]
- b) What is meant by Things in IoT? [1M]
- c) Differentiate between IoT and M2M. [1M]
- d) What is the need for IoT systems management? [1M]
- e) State features of python Language. [1M]
- f) What are the control flow statements? [1M]
- g) How Raspberry Pi is different from desktop computer? [1M]
- h) What is the use of GPIO pin in Raspberry Pi? [1M]
- i) What is REST API? [1M]
- j) Define Django template. [1M]

PART-B**(50 Marks)**

2. Describe various Communication models used in IoT. [10M]
- OR**
3. Briefly explain the technologies which play key role in IoT. [10M]
 4. Illustrate end-to-end architecture of M2M systems with a neat diagram. [10M]
- OR**
5. Discuss in detail about software defined networking for IoT. [10M]
 - 6.a) What is python function? Write the characteristics of a python function. [5M]
 - b) Write a Python program that prints multiplication table of a given number. [5M]
- OR**
7. What is Module in python? Explain how you can use modules in your program with example code. [10M]
 8. Explain the interfacing of a Light sensor (LDR) with Raspberry Pi. [10M]
- OR**
9. With a neat diagram, explain wireless temperature monitoring system using Raspberry Pi. [10M]
 10. Describe the architecture of Django application. [10M]
- OR**
11. Explain Web Application frame works and web API. [10M]
