

**CMR ENGINEERING COLLEGE: : HYDERABAD  
UGC AUTONOMOUS**

**III–B.TECH–II–Semester End Examinations (Regular) - June- 2025**

**INTERNET OF THINGS**

**(IT)**

**[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) Define Internet of Things. [1M]
- b) List the IoT-enabled technologies. [1M]
- c) What is NETCONF used for IoT? [1M]
- d) What is the purpose of YANG for IoT? [1M]
- e) Mention any one file handling function. [1M]
- f) What is Exception Handling? [1M]
- g) What is SPI interface? [1M]
- h) Explain about I2C. [1M]
- i) What is the function of a web server? [1M]
- j) Explain the use of Flask for IoT. [1M]

**PART-B**

**(50 Marks)**

2. Discuss various IoT communication models and APIs. [10M]
- OR**
3. Describe IoT architecture and physical design. [10M]
4. How does SDN enhance network flexibility in IoT? [10M]
- OR**
5. Explain the architecture of IoT system management with NETCOZF. [10M]
6. Describe the data types and data structures in Python. [10M]
- OR**
7. Write the Python programs demonstrating loops and conditionals. [10M]
8. Compare and construction between I2C and SPI. [10M]
- OR**
9. Explain how Raspberry Pi program for IoT applications. [10M]
10. Develop a simple web application frame work designing a RESTful web API. [10M]
- OR**
11. Explain the integration of IoT devices with cloud servers. [10M]

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