

**CMR ENGINEERING COLLEGE: : HYDERABAD****UGC AUTONOMOUS****III-B.TECH-II-Semester End Examinations (Supply) - December- 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 IoT. [1M]
- b) Differentiate between Logical and physical design of IoT. [1M]
- c) Demonstrate YANG -2. [1M]
- d) Examine whether M2M and IoT are same? [1M]
- e) How complex is, logical design with PYTHON for an IoT application? [1M]
- f) List the basic operations in IoT. [1M]
- g) What is the use of SPI? [1M]
- h) How is Raspberry Pi different from a desktop computer? [1M]
- i) Design a Restful web API. [1M]
- j) What is the importance of cloud storage models? [1M]

**PART-B****(50 Marks)**

2. Generalize on Big data analytics and embedded systems. [10M]
- OR**
3. Explain the IoT protocols with block diagram. [10M]
4. Illustrate in detail about the architecture of SDN. [10M]
- OR**
5. Analyze in detail the steps for IoT device Management with NETCONF-YANG. [10M]
6. What are packages? Give an example of package creation in Python. [10M]
- OR**
7. What is an Exception? Explain types of exceptions and give an example. [10M]
8. Describe the use of SPI and I2C interfaces on raspberry pi? [10M]
- OR**
9. Elaborate the external gadgets and controlling of any IOT system. [10M]
10. With a neat block diagram, explain the cloud storage model. [10M]
- OR**
11. Formulate python web application framework and design a web with API. [10M]

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