Code No: R18A0453 MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech II Semester Supplementary Examinations, April 2023 Internet of Things & Its Applications

(EEE, ECE, CSE, IT & AE)

Roll No

Time: 3 hours

Note: This question paper Consists of 5 Sections. Answer FIVE Questions, Choosing ONE Question from each SECTION and each Question carries 14 marks.

*** **SECTION-I**

1 What is Internet of Things (IoT). What are components required to design IoT [14M] Device and explain IoT eco system.

OR

2 What are sensors and actuators? Explain in detail. What is Machine to Machine [14M] communication (M2M)?

SECTION-II

3 Explain with example MQTT Protocol. What is the role of MQTT protocol in [14M] IoT? what are the features of MQTT protocol?

OR

4 What is role of Cloud Computing and Big Data in Internet of Things? Explain the [14M] IoT analysis.

SECTION-III

5 Explain the design methodology in the implementation of IoT applications. [14M] OR 6 Explain about Raspberry Pi. [14M] **SECTION-IV** 7 Give complete details of IoT Data Analytics Challenges [14M] OR 8 What is cloud computing in IoT? And explain cloud services in IoT. [14M]

SECTION-V

- 9 Design a smart home automation system in IoT. [14M] OR
- 10 Implement the air pollution monitoring system in IoT [14M] ***

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Max. Marks: 70