

Code No: R18A0453

MALLA REDDY COLLEGE OF ENGINEERING & TECHNOLOGY

(Autonomous Institution – UGC, Govt. of India)

III B.Tech II Semester Regular/Supplementary Examinations, June 2022**Internet of Things & Its Applications****(EEE, ECE, CSE, IT & AE)**

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Time: 3 hours**Max. Marks: 70**

Answer Any **Five** Questions
All Questions carries equal marks.

- 1 Describe IoT World Forum (IoTWF) standardized architecture. [14M]

- 2 a) With a neat diagram explain the architecture of IoT and Discuss IoT Challenges. [7M]
 b) Explain Core IoT functional Stack [7M]

- 3 a) Explain different application layer protocols for the IoT. [7M]
 b) Which protocol is used to link all the devices in the IoT? Explain in detail. [7M]

- 4 a) Describe MQTT framework and message format in detail. [7M]
 b Enlighten different IoT Protocols. [7M]

- 5 a) Sketch Arduino UNO depicting the pin diagram and explain in detail [7M]
 b) Explain in detail about design methodology in the design and development of an embedded application. [7M]

- 6 a) Give an overview of IoT supported hardware platforms [7M]
 b) With a neat diagram explain Raspberry Pi interface. [7M]

- 7 a) Explain differences between [4M]
 I. structured and unstructured data [3M]
 II. Data in motion and Data at rest
 b) How does M2M communication work? Explain. [7M]

- 8 a) Explain the concept of Industry 4.0 [7M]
 b) Design a smart home automation system using IoT. [7M]
