

MCA / SEM-II / C-2020 / MAR. 2023 / SH-2022

Total Marks: 80

Time: 3 Hours

N.B.

- 1) Question No.1 is compulsory.
- 2) Attempt any three from the remaining five questions.
- 3) Figures to the right indicate full marks

- Q.1 (a) Define IoT and Describe any four characteristics of IoT. 05
- (b) Explain IoT reference model with the help of diagram. 05
- (c) Write a note on Modbus protocol. 05
- (d) Distinguish between Web of Things and Internet of Things. 05
- Q.2 (a) Explain IoT reference architecture. What are different views used for presentation of IoT reference architecture. Explain any one of them. 10
- (b) Explain the various steps involved in IOT system design methodology? 10
- Q.3 (a) Explain Cloud Computing and WSN as IoT enabling technologies. 10
- (b) Elaborate the application of IOT in the following domains: Cities and Environment. 10
- Q.4 (a) Why there is need for IoT Security. Explain elements of IoT Security. 10
- (b) Explain the Cloud of things architecture with suitable diagram. 10
- Q.5 (a) Explain European Telecommunications Standards Institute(ETSI) M2M model in detail. 10
- (b) What are the different efforts that have been taken for IOT Protocol Standardization? 10
- Q.6 (a) Explain various IoT Communication Models. 10
- (b) Use IoT design methodology steps and design Home automation system. 10

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