CBCS SCHEME

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16/17MCA552

Fifth Semester MCA Degree Examination, Jan./Feb. 2021
Internet of Things (IoT)

Time: 3 hrs. Max. Marks: 80

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.

Module-1

1 a. Explain the three reasons how M2M and IoT has up taken. **(03 Marks)**
b. List and explain key application areas of M2M devices. **(07 Marks)**
c. Differentiate M2M with IoT. **(06 Marks)**

OR

2 a. With neat diagram, discuss IoT and emerging its applications. **(08 Marks)**
b. Explain the trends in information and communication technologies. **(08 Marks)**

Module-2

3 a. Differentiate between ECO systems and Value-chains. **(04 Marks)**
b. Describe the steps involved in IoT value chain with neat diagram. **(08 Marks)**
c. What is global value chain? With a diagram. **(04 Marks)**

OR

4 a. Explain IoT architecture outline with a diagram. **(08 Marks)**
b. With a neat diagram, explain information driven global value chain. **(08 Marks)**

Module-3

5 a. Define Device. List and explain the properties of device. **(04 Marks)**
b. How data is managed in M2M? With neat diagram. **(08 Marks)**
c. List and explain cloud computing deployment model. **(04 Marks)**

OR

6 a. Explain CRISP_DM process diagram. **(06 Marks)**
b. Explain Everythings as a Service (XaaS). **(05 Marks)**
c. Explain the following :
(i) Business understanding
(ii) Data understanding
(iii) Data preparation
(iv) Modelling
(v) Evaluation **(05 Marks)**

Module-4

7 a. Briefly explain the ETSI M2M high-level architecture. **(08 Marks)**
b. With a neat diagram, explain the IoT Reference model. **(08 Marks)**

OR

8 a. Discuss IoT service functional group and Virtual Entity functional group. **(04 Marks)**
b. Describe the information handling procedure using patterns. **(08 Marks)**

c. Write a note on :
(i) IoT Service Resolution (ii) Virtual Entity Service Resolution. **(04 Marks)**

Module-5

9 a. Explain how remote interaction and control over IoT applications. **(04 Marks)**
b. Explain service-oriented architecture-based device integration. **(08 Marks)**
c. What are the purpose of Building Automation System (BAS) **(04 Marks)**

OR

10 a. Give an example of case study : Phase one – Commercial building automation. **(08 Marks)**
b. With a neat diagram, describe the SOCRDES integration architecture. **(08 Marks)**

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