

M.C.A.(Sem-V) April-2023

[Time: 3:00 Hrs]

[ Marks:80 ]

- N.B: 1. Question no.1 is compulsory.  
2. Attempt any four questions from remaining.  
3. Figures to the right indicate full marks.

**Q1** Answer the following questions:

- a. What are the key features of M2M? **5m**
- b. Differentiate between Arduino and Raspberry pi. **5m**
- c. What is an IoT dashboard? **5m**
- d. What is IoT Analytics? **5m**

**Q2** a. Explain production processes of the information-driven global value chain? **8m**

- b. What are 7 design principles of IoT? **7m**

**Q3** a. Explain IOT reference architecture's deployment and operational view. **8m**

- b. Explain how data analysis and data visualization is handled in IoT? **7m**

**Q4** a. Explain various sensors which can interface with raspberry pi. **8m**

- b. Explain the Benefits of IoT and BPM integration? **7m**

**Q5** a. What are the four main stages of IoT architecture? **8m**

- b. Write a brief note on IoT Home Automation Systems. **7m**

**Q6** a. What is smart farming? What are the different components of smart farming? **8m**

- b. What are smart payment systems? List different smart payment systems currently being used. **7m**

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