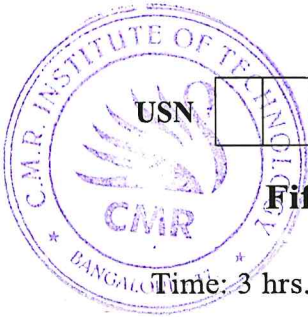


# CBCS SCHEME



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18MCA542

**Fifth Semester MCA Degree Examination, July/August 2022**

## Internet of Things

Time: 3 hrs.

Max. Marks: 100

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

### Module-1

- 1 a. Explain in detail, M<sub>2</sub>M communication. (06 Marks)
- b. Explain megatrends, capabilities and IOT implications. (06 Marks)
- c. Explain M<sub>2</sub>M approach with an example. (08 Marks)

OR

- 2 a. Compare the characteristics of M<sub>2</sub>M and IOT. (10 Marks)
- b. Explain IOT approach with an example. (10 Marks)

### Module-2

- 3 a. Describe the information driven value chain for IOT. (10 Marks)
- b. Explain IOT-architecture. (10 Marks)

OR

- 4 a. Discuss the emerging applications of IOT. (10 Marks)
- b. Explain functional layer and capabilities of an IOT solution. (10 Marks)

### Module-3

- 5 a. Explain various service and deployment of a cloud. (10 Marks)
- b. Describe how data is managed in M<sub>2</sub>M. (06 Marks)
- c. Mention the Four V's of Big Data. (04 Marks)

OR

- 6 a. With a neat diagram, explain how IOT has been integrated with enterprise systems. (12 Marks)
- b. Explain knowledge management reference architecture. (08 Marks)

### Module-4

- 7 a. Briefly explain ETSI M<sub>2</sub>M high level architecture. (12 Marks)
- b. Explain functionality of OGS SWE. (08 Marks)

OR

- 8 a. With pictorial representation of class diagram for the following terms:  
(i) Association (ii) Aggregation. (iii) Generalization. (10 Marks)
- b. With the help of a diagram, how mapping between IOT domain model and deployment view is done. (10 Marks)

### Module-5

- 9 a. Explain SOA-based device integration. (10 Marks)
- b. Explain various levels of SOCRADES integration architecture. (10 Marks)

OR

- 10 a. Explain the evolution of commercial building automation. (10 Marks)
- b. Explain IMC-AESOP cloud based architecture vision for IOT. (10 Marks)

\* \* \* \* \*

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.

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