

CBCS SCHEME

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18BM744

Seventh Semester B.E. Degree Examination, Jan./Feb. 2023 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. What is IoT? Explain IoT terms in detail. (10 Marks)
b. Explain the characteristics of IoT. (10 Marks)

OR

- 2 a. What is an IoT eco system? Illustrate the enabling technologies in IoT in detail. (10 Marks)
b. Illustrate the different protocols in IoT. (10 Marks)

Module-2

- 3 a. Illustrate the wireless sensor networks and its technologies in detail. (12 Marks)
b. Illustrate the applications of Wi-Fi. (08 Marks)

OR

- 4 a. Illustrate the case studies of LoRa applications. (10 Marks)
b. Explain Pros and Cons of analog and digital sensors. (10 Marks)

Module-3

- 5 a. Explain Message Queue Telemetry Transport (MQTT) in detail. (10 Marks)
b. Explain extensible messaging and presence protocol in detail. (10 Marks)

OR

- 6 a. Explain an Advanced Message Queuing Protocol (AMQP) in detail. (10 Marks)
b. Explain the following terms:
(i) REST constraints (ii) Data distribution service characteristics (10 Marks)

Module-4

- 7 a. Explain IoT used in Home automation and Health Care monitoring. (10 Marks)
b. Explain IoT used in public-private partnership in detail. (10 Marks)

OR

- 8 a. Explain IoT used in public safety in detail. (10 Marks)
b. Explain IoT used in environment control and agriculture. (10 Marks)

Module-5

- 9 a. Explain purpose and requirements specification and process specifications of IoT design. (10 Marks)
b. Explain the following:
(i) Domain Model Specification (ii) Information Model Specification (10 Marks)

OR

- 10 a. Explain IoT level 1 and IoT level 2 of IoT level specification with neat diagrams. (10 Marks)
b. Write notes on: (i) Operational view specification of IoT design
(ii) Device and component integration in IoT design. (10 Marks)

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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.