



CBCS SCHEME

20ECS/ESP/EVE/ELD/EIE333

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Third Semester M.Tech. Degree Examination, Feb./Mar. 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. What is IOT technology? Explain how digitization will help IOT. (08 Marks)
- b. What is the difference between IOT and digital transformation? (04 Marks)
- c. Discuss the challenges in the world of IOT. (08 Marks)

OR

- 2 a. Discuss drivers behind new architectures. (10 Marks)
- b. Discuss the M2M IOT standard architecture. (10 Marks)

Module-2

- 3 a. What are the core IOT functional stack? Explain in brief three layers of IOT stack. (10 Marks)
- b. Explain how IOT effects network management and monitoring. (10 Marks)

OR

- 4 a. Explain about IOT data management and compute stack. (10 Marks)
- b. What is network analytics? How does network analytics work and collect data? (10 Marks)

Module-3

- 5 a. What is role of sensor in on IOT device? Explain scope of IOT in wireless technology. (10 Marks)
- b. Explain the communication protocols for wireless sensor network. (10 Marks)

OR

- 6 a. What are the features of IEEE802.15.4 and explain its architecture. (10 Marks)
- b. Write a brief note on : i) LTE Cat 0 ii) LTE – M. (10 Marks)

Module-4

- 7 a. Discuss the need for optimization in on IOT. Explain constrained node, constrained networks, IP versions. (10 Marks)
- b. Explain SCADA system and application layer protocols for IOT. (10 Marks)

OR

- 8 a. Explain structured and unstructured data with examples. (10 Marks)
- b. Explain about IOT data analytics overview and challenges. (10 Marks)

Module-5

- 9 a. Explain Grid block reference model architecture. (10 Marks)
- b. Explain architecture of a smart city. (10 Marks)

OR

- 10 a. Explain smart city security architecture system. (10 Marks)
- b. Explain smart street lighting system using 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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