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18IC72

## Seventh Semester B.E. Degree Examination, Dec.2023/Jan.2024 Big Data Analytics of IOT

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 analytics lifecycle, and what are the techniques used at each stage of this lifecycle? (10 Marks)
- b. Explain Functional Architecture of IoT and Bigdata platform with the figure. (10 Marks)

**OR**

- 2 a. Discuss in detail about Low-cost LoRa Implementation. (10 Marks)
- b. List and explain various requirements allowing building an IoT analytics platform. (10 Marks)

### Module-2

- 3 a. With a neat diagram, explain edge node components. (10 Marks)
- b. Explain the challenges in building an IoT search Engine. (10 Marks)

**OR**

- 4 a. Describe the architectural components and structure of the SMART framework. (10 Marks)
- b. Explain the VITAL Architecture for IoT Analytics Applications. (10 Marks)

### Module-3

- 5 a. Explain the properties of Sensing – as – a – service Infrastructure. (10 Marks)
- b. Explain the Functional blocks of Open IoT's project analytics as a service architecture. (10 Marks)

**OR**

- 6 a. Describe Pushing Data to LSM. (10 Marks)
- b. Explain Architecture towards the linked open Reasoning. (10 Marks)

### Module-4

- 7 a. Describe the layers of the base architecture for Smart buildings ecosystem. (10 Marks)
- b. Discuss the different stages the must be carried out to achieve efficiency building energy management. (10 Marks)

**OR**

- 8 a. What are the components included in the Geelytics platform? Explain. (10 Marks)
- b. List and explain New challenges towards Edge – based solutions. (10 Marks)

### Module-5

- 9 a. Elaborate on the transition from the Internet of Things (IoT) to a Data – Driven Economy and Society. (10 Marks)
- b. Illustrate a Practical Example based on Footfall data. (10 Marks)

**OR**

- 10 a. List and explain activities and phases involved in CRISP – DM. (10 Marks)
- b. Describe Way Forward with IoT. (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.