

Roll No.

Total No. of Pages : 02

Total No. of Questions : 09

B.Tech. (AI & ML) (Sem.-6)

**ADVANCE COMPUTING AND NETWORK TECHNOLOGIES**

Subject Code : BTAI ML-607-20

M.Code : 93681

Date of Examination : 05-12-2025

Time : 3 Hrs.

Max. Marks : 60

**INSTRUCTIONS TO CANDIDATES :**

1. SECTION-A is COMPULSORY consisting of TEN questions carrying TWO marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

**SECTION-A**

**1. Write briefly :**

- a) What are Azure Services?
- b) What is WPWAN?
- c) What is OFDM?
- d) Explain LEACH.
- e) What are applications if WSN?
- f) Define Private Cloud.
- g) How does fog computing reduce latency and the resources necessary to transport data for processing?
- h) Differentiate V2I and V2V.
- i) What is the role of PAMAS?
- j) What is Multitenancy?

## SECTION - B

2. Discuss the need for Fog and Edge computing Middleware.
3. Illustrate the five major activities of a Cloud Provider.
4. Explain Destination Sequenced Distance Vector (DSDV) Protocol in detail.
5. Differentiate between Cloud Computing and Fog Computing in detail.
6. What are Hypervisors? Discuss its various types.

## SECTION - C

7. What is the role of wireless sensor network? Discuss the various design challenges in Ad-hoc and Sensor networks.
8. What do you meant by Cloud computing? Discuss the various cloud service models and its architecture in detail.
9. What is Fog Computing? Discuss its various characteristics, Issues and Challenges.

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**