

Roll No



**PRESIDENCY UNIVERSITY  
BENGALURU**

**SCHOOL OF ENGINEERING  
MID TERM EXAMINATION - OCT 2023**

**Semester** : Semester V - 2021

**Course Code** : CSE2032

**Course Name** : Sem V - CSE2032 - Introduction to FoG Computing

**Program** : B. TECH

**Date** : 30-OCT-2023

**Time** : 2:00PM - 3:30PM

**Max Marks** : 50

**Weightage** : 25%

**Instructions:**

- (i) Read all questions carefully and answer accordingly.
- (ii) Question paper consists of 3 parts.
- (iii) Scientific and non-programmable calculator are permitted.
- (iv) Do not write any information on the question paper other than Roll Number.

**PART A**

**ANSWER ALL THE QUESTIONS**

**(5 X 2 = 10M)**

1. What is macrocell, Microcell, and picocell in Cellular Networks?  
(CO1) [Knowledge]
2. Name two common issues and challenges associated with implementing Fog Computing.  
(CO1) [Knowledge]
3. What are the common notations employed for IP addressing?  
(CO1) [Knowledge]
4. Define Augmentation Model  
(CO2) [Knowledge]
5. What is the role of Pre-Processing Layer in Fog Architecture?  
(CO2) [Knowledge]

**PART B**

**ANSWER ALL THE QUESTIONS**

**(4 X 5 = 20M)**

6. List out the Critical Issues of Fog Nodes  
(CO1) [Comprehension]
7. Explain the Characteristics of Fog Computing  
(CO1) [Comprehension]
8. Classify Mobile Fog Computing Models. Explain the Use cases for each model  
(CO2) [Comprehension]

9. Describe in detail on IEEE 802.11 Standard architecture with appropriate diagrams  
(CO2) [Comprehension]

**PART C**

**ANSWER THE FOLLOWING QUESTION**

**(1 X 20 = 20M)**

10. Design a Fog Computing architecture for connected vehicles that facilitates real-time communication among vehicles on the road, traffic management systems, and emergency response services. Discuss how the architecture can mitigate potential latency issues, ensure vehicle safety, and support vehicle-to-vehicle (V2V) and vehicle-to-infrastructure (V2I) communication.  
(CO2) [Application]