

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

SET A

**SCHOOL OF ENGINEERING
END TERM EXAMINATION - JAN 2024**

Semester : Semester V - 2021

Course Code : CSE3055

Course Name : Wireless Communication In Iot

Program : B.Tech.

Date : 10-JAN-2024

Time : 9:30AM - 12:30 PM

Max Marks : 100

Weightage : 50%

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 2M = 10M

1. Define MDP,
(CO1,CO2) [Knowledge]
2. Identify the architectural levels in IOT?
(CO2) [Knowledge]
3. What is DMS?
(CO3) [Knowledge]
4. Mention the three options for a sink?
(CO4) [Knowledge]
5. Illustrate the key points in WSN?
(CO4) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS

5 X 10M = 50M

6. Discuss in detail the characteristics and structure of Transceivers.
(CO1) [Comprehension]
7. Define the following:
i Schedule-based MAC protocol. With Example.
ii How S-MAC protocol handle the major source of energy inefficiency in WSN
(CO2) [Comprehension]
8. List the optimization goals, figures of merit of a WSN and explain each in detail
(CO3,CO2) [Comprehension]

9. Discuss the following (a) IrDA (b) USB

(CO3) [Comprehension]

10. In WSN the interfaces should be accessible from the protocol implementations in virtual reality system suggest and explain the interface sensor model for this scenario, with a neat diagram,

(CO4) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS

2 X 20M = 40M

11. a) What are the wired external communication Interface explain each in detail

b) The service provider aim is to offer wireless communication services within a specific region. a licensed users can function within a range of 100 – 150 feet indoors and up to 300 feet outdoors. this service employs a cutting-edge technology capable of supporting at 2.5GHz. The deployment of this advanced wireless technology is providing efficient communication services to meet the diverse needs of users in the designated network identify the technology and write the following:

1. key specifications
2. Working principles
3. Advantage, Disadvantage and its Application

(CO3) [Application]

12. a) Illustrate the working principle and its components of RFID with a neat diagram

b) Explain the following in detail. With suitable diagram

1. CSMA Access Mode
2. CSMA Channel Concept
3. CSMA Advantages and Disadvantages

(CO4) [Application]