Roll No

PRESIDENCY UNIVERSITY BENGALURU

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

Semester : Semester III - 2022 Course Code : CIV2041 Course Name : Sem III - CIV2041 - Fundamentals of Smart City Program: B. TECH

Date : 3-NOV-2023 Time: 11:30AM - 1:00PM 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 guestion paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS

1. Smart Cities require the use of sensors to provide more granular information about its hard assets, the environment, and the utilization of services. Recent research has shown that adding sensors can provide demonstrable benefits. What are the key challenges of smart cities?

(CO1) [Knowledge]

2. Smart mobility is a core element of smart city initiatives. Urban mobility is a major "pain point" for many city dwellers, due to frequent traffic congestion and long commuting times. What is the importance of Last mile connectivity in smart mobility?

(CO1) [Knowledge]

PART B

ANSWER ALL THE QUESTIONS

3. Smart cities use intelligent solutions to optimize infrastructure and smart and responsive governance to engage citizens in the management of their city. Discuss the benefits of smart cities.

(CO1) [Comprehension]

4. The transformation of cities into smarter and more sustainable environments is a current reality that's significantly reshaping urban living. Enhanced mobility, energy-efficient infrastructures, smart governance, intelligent urban planning and prioritized citizen well-being are leading the way to a sustainable urban future. Discuss about Urban consultation Process.

(CO2) [Comprehension]



(2 X 5 = 10M)

 $(2 \times 10 = 20M)$

ANSWER ALL THE QUESTIONS

(1 X 20 = 20M)

5. Waste management for smart cities is all about the latest technology integration in the waste management solutions specialized for smart cities. The key point in waste management for smart cities is that municipalities who are responsible for waste management in cities have various needs, and latest technologies present efficient and proper waste management solutions for <u>sustainable municipal</u> waste management. Present about automated waste collect system and aims of the smart solid waste management system.

(CO1) [Application]