

Roll No																				
---------	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--



PRESIDENCY UNIVERSITY BENGALURU

SCHOOL OF ENGINEERING MID TERM EXAMINATION - MAY 2023

Semester : Semester VI - B.Tech CIV - 2020

Course Code : CIV2041

Course Name : Sem VI - CIV2041 - Fundamentals of Smart City

Program : B.Tech. Civil Engineering

Date : 22-MAY-2023

Time : 2.00 PM - 3.30 PM

Max Marks : 60

Weightage : 30%

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. Spatial interventions in inclusive planning process will enable
 - a) Incorporation of informal economy (CO2) [Knowledge]
 - b) Provision of affordable housing and land
 - c) Inclusion of marginalised people
 - d) All of the above
2. Smart cities use intelligent solutions to optimize the infrastructure and smart and responsive governance to engage citizens in the management of their city. National Smart City Mission was launched in the year
 - a) 2020 (CO1) [Knowledge]
 - b) 2015
 - c) 2018
 - d) 2013
3. Inclusive planning aims at resolving the issues related to various disparities such as
 - a) Lack of access to basic facilities (CO1) [Knowledge]
 - b) Economic disparity
 - c) Social exclusion
 - d) All of the above

4. A participatory process that aims at a common understanding of the key issues and priorities and agreeing on the course of action to be undertaken before drafting the Strategic Urban Development Plan is called
- a) Urban consultation (CO1) [Knowledge]
 b) Public participation
 c) Citizen engagement
 d) All of the above
5. The type of planning process which incorporates every dimension of the urban fabrics and accommodates every individual in the development framework especially the helpless and unheard is called
- a) Strategic planning (CO1) [Knowledge]
 b) Citizen engagement planning
 c) Inclusive planning
 d) Integrated planning

PART B

ANSWER ALL THE QUESTIONS

(5 X 6 = 30M)

6. The city selection process is based on idea of Cooperative and Competitive Federalism. The city selection process follows a Challenge method two stages, in conjunct, to select cities. Discuss the Stage I competition of city selection with the help of a flow chart.
- (CO2) [Comprehension]
7. Smart cities use intelligent solutions to optimize the infrastructure services. List the core infrastructure elements of a smart city.
- (CO1) [Comprehension]
8. Smart infrastructures offer intelligent features that significantly enhance the user experience and citizen comforts. Explain any 3 features of Smart mobility and Autonomous buildings.
- (CO1) [Comprehension]
9. The concept of smart cities emerged in the mid-1990s as internet and information infrastructure became widespread. With the advent of the internet, telecommunications companies began offering new service models and testing pilot projects. List the types of smart city models.
- (CO1) [Comprehension]
10. A smart city brings together technology, government and society to enable the following characteristics such as smart economy, smart mobility, a smart environment, smart people, smart living, and smart governance. List any 3 advantages and challenges of smart cities.
- (CO1) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS

(2 X 10 = 20M)

11. Smart infrastructures offer intelligent features that significantly enhance the user experience and citizen comforts. Explain the anatomy of smart cities with intelligent features.
- (CO1) [Application]

- 12.** The city selection process is based on the idea of Cooperative and Competitive Federalism. Cities are diverse and each city has to construct its idea and vision of a smart city that is aligned to its local context. The city selection process follows a Challenge method in two stages. Discuss in detail smart city selection process with the help of flow charts.

(CO2) [Application]