

Roll No



**PRESIDENCY UNIVERSITY
BENGALURU**

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

Semester : Semester IV - 2021

Course Code : CIV2036

Course Name : Sem IV - CIV2036 - Introduction To Infrastructure Systems and Planning

Program : CIV

Date : 13-APR-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 question paper other than Roll Number.

PART A

ANSWER ALL THE QUESTIONS

(5 X 2 = 10M)

1. There is no single definition for the term "Infrastructure". It might be more helpful to describe infrastructure through a set of characteristics that are attributed to it. Identify the infrastructure attributes
 - a) Infrastructure facilities are generally available to large groups of people (CO1) [Knowledge]
 - b) Infrastructure helps deliver essential services for the functioning of society
 - c) Infrastructure helps achieve economic and social objectives
 - d) All of the above
2. The programs promoted by the Ministry of Urban Development (MoUD) and provides funds for providing water connections to smaller urban cities is
 - a) AUWSP (CO1) [Knowledge]
 - b) ARWSP
 - c) Both A and B
 - d) None of the above
3. Often the projects may not commercially viable through collection of tolls and other revenue generation mechanisms, a type of grant provided to bridge the gap between revenue generated and outlay is called
 - a) Subsidy (CO1) [Knowledge]
 - b) Viability gap funding
 - c) Angel investment
 - d) Venture capital

4. National Telecom Policy (NTP) paved the way for the entry of the private sector and opened up both the Cellular market and the landline market for competition. NTP was first introduced in the year
a) 1987 (CO1) [Knowledge]
b) 1997
c) 1994
d) 1999
5. Identify which of the following options in the Public Private Partnership spectrum more popular and an option of convenience
a) Corporatization (CO2) [Knowledge]
b) Build Own Operate (BOO)
c) Build Operate Transfer (BOT)
d) None of the above

PART B

ANSWER ALL THE QUESTIONS

(4 X 5 = 20M)

6. Despite the importance of infrastructure for economic and social well-being, developments are faced with several problems such as lack of funding and corruption. List any 5 reforms undertaken by Government of India to overcome the above said crisis.
(CO1) [Comprehension]
7. After the liberalization of the Indian economy, the Private sector was also allowed to provide services. This led to a sharp decrease in prices, improvement in service quality and increased access to telephony services. List any 5 features of revised National Telecom Policy.
(CO1) [Comprehension]
8. A public-private partnership (PPP) is a long-term arrangement between a government and private sector institutions. Typically, it involves private capital financing government projects and services upfront, and then drawing revenues from taxpayers and/or users over the course of the PPP contract. List any 3 advantages and disadvantages of a PPP project.
(CO1) [Comprehension]
9. Since the private sector absorbs financial and performance risks in BOT projects, the government should not control or decide actions. They should merely enable the private sector to perform to the best of their ability by clearing regulatory bottlenecks and introducing incentives in favour of the project.
(CO1) [Comprehension]

PART C

ANSWER ALL THE QUESTIONS

(2 X 10 = 20M)

10. A public-private partnership (PPP) is a long-term arrangement between a government and private sector institutions. The government can start by corporatizing a public sector entity so that it acts as an autonomous corporation. Briefly explain the process of privatization process and the options available.
(CO1) [Application]
11. Infrastructure planning is primarily concerned with identifying the needs, the modes of operation, resources required, and financial implications of specific infrastructures within a commercial complex or organization. Discuss in detail the inter relationship between Problem diagnosis and Goal articulation stages of infrastructure planning.
(CO2) [Application]