CLASS: MUP   SEMESTER : II
BRANCH: ARCHITECTURE   SESSION : SP/2023

SUBJECT: AR653 URBAN INFRASTRUCTURE PLANNING
TIME: 3 Hours   FULL MARKS: 50

INSTRUCTIONS:
1. **This question paper contains 5 questions each of 10 marks and total of 50 marks**
2. **Candidates may attempt any 5 questions maximum of 50 marks.**
3. **Missing data if any may be suitably assumed suitably.**
4. **Before attempting the question paper make sure that you have got the correct question paper.**

Q.1(a)	Discuss in brief the role and responsibility of CPHEEO Manual regarding Infrastructure Planning.	[4]
Q.1(b)	Name 3(three) major Urban Infrastructure Development mission in India elaborating their functionality and objectives?	[6]
Q.2(a)	What are the criteria effecting water consumption in Urban Area?	[2]
Q.2(b)	Describe briefly the various sources, contaminants & environmental significance of waste water in a city.	[4]
Q.2(c)	Explain graphically different types of networking in water distribution system? Mention the advantages and disadvantages of each type.	**[4]**

Q.3(a)   Write short notes : (any three)   [10]
         (a) Rain Water Harvesting
         (b) Sewage Treatment Plant (STP)
         (c) Water Treatment Plant

         (d) Composter

Q.4(a)	Illustrate the role of the four central principles in the solid waste management plan?	[4]
Q.4(b)	Discuss seven step approach for preparation of a municipal solid waste management plan for any city?	[6]
Q.5(a)	Define the present power generation scenario in different sectors in India?	[2]
Q.5(b)	Discuss the basic approach to general distribution of electric power in Urban Area?	[4]
Q.5(c)	How can we use machine learning effectively in Smart Cities?	[4]

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