BIRLA INSTITUTE OF TECHNOLOGY, MESRA, RANCHI
(END SEMESTER EXAMINATION)

CLASS: MUP   SEMESTER: II
BRANCH: ARCH.   SESSION: SP/19

SUBJECT: AR6053 URBAN INFRASTRUCTURE PLANNING

TIME: 3 Hours   FULL MARKS: 50

INSTRUCTIONS:
1. The question paper contains 5 questions each of 10 marks and total 50 marks.
2. Attempt all questions.
3. The missing data, if any, may be assumed suitably.
4. Before attempting the question paper, be sure that you have got the correct question paper.
5. Tables/Data hand book/Graph paper etc. to be supplied to the candidates in the examination hall.

Q.1(a)	Define infrastructure. What are the different types of infrastructure?	[5]
Q.1(b)	What is CPHEEO? Explain the roles and duties of CPHEEO.	[5]
Q.2(a)	What is per capita demand of water? What are the factors affecting the per capita demand?	[5]
Q.2(b)	Discuss the water supply scheme in detail with the help of a flowchart.	[5]
Q.3(a)	What is wastewater treatment? Draw a neat diagram to explain the wastewater treatment system.	[5]
Q.3(b)	What is waste water reuse? Give an appropriate example of reuse of reclaimed water adopted by any city in the world.	[5]
Q.4(a)	Discuss the functional elements of Municipal Solid Waste Management.	[5]
Q.4(b)	Explain the major environmental effects of landfill sites.	[5]
Q.5(a)	Explain the various power connection schemes of distribution system for a city.	[5]
Q.5(b)	In a street you have fixed some lamps with the following characteristics: average lamp flux- 50 lumens; coefficient of utilization-0.8; average maintenance factor-0.75. if the spacing between lamps is 30 meters and the width of the street is 10m, calculate the illumination level that would be achieved in lumen per sqm.	[5]

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