B. Tech Degree VII Semester (Supplementary)Examination July 2010

CE 701 A/B ENVIRONMENTAL ENGINEERING

(2002 Scheme)

Time : 3 Hours Maximum Marks : 100

I.	(a)	Write short note on global environmental issues.	(7)
	(b)	Discuss various types of water demands.	(6)
	(c)	Explain the working of a hand pump.	(7)
		OR	
II.	(a)	Write short note on water supply scheme.	(7)
	(b)	Explain any population forecasting method.	(7)
	(c)	Determine the design demand for (i) pumps (ii) distribution system. The average per capita demand may be taken as 200 litre. Given that the water supply scheme has to be designed for a population of 2,50,000.	(6)
III.	(a)	Explain the theory of sedimentation.	(7)
	(b)	Explain coagulation and flocculation.	(7)
	(c)	What is meant by break point chlorination.	(6)
		OR	
IV.	(a)	Explain the methods of disinfection.	(6)
	(b)	Write short note on fluoridation and deflouridation.	(7)
	(c)	What is aeration? Give its applications.	(7)
V.	(a)	Explain principles of house drainage.	(7)
	(b)	What are factors affecting storm water drainage?	(7)
	(c)	Write notes on ground water infiltration.	(6)
		OR	
VI.	(a)	Write notes on sanitary pumping.	(6)
	(b)	Explain systems of sewerage.	(8)
	(c)	For a small city with a population of 50,000 residing over on area of 25 hectares, find the design discharge for the combined sewer. User the data given below : Rate of water supply = 175 litres per capita per day Run off coefficient = 0.5 Time of concentration = 30 minutes	(6)
VII.	(a)	What are characteristics of sewage?	(6)
	(b)	Explain treatment of waste water.	(8)
	(c)	Write notes on detritus tank.	(6)
		OR	
VIII.	(a)	Write notes on sewage disposal.	(6)
	(b)	Explain surface and subsurface irrigation.	(8)
	(c)	Explain the working of activated sludge unit.	(6)
IX.	(a)	Explain about types and sources of solid wastes.	(6)
	(b)	Explain the health effects of air pollution.	(7)
	(c)	Write notes on noise pollution control.	(7)
		OR	
X.	(a)	What are the solid waste characteristics?	(6)
	(b)	Explain about types and sources of air pollution.	(8)
	(c)	Write notes on noise pollution effects.	(6)

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