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Name :

Reg. No. :

EIGHTH SEMESTER B.TECH DEGREE EXAMINATION, DECEMBER 2011

**CE 04 803 – ENVIRONMENTAL ENGINEERING II
(2004 ADMISSION)**

Time : 3 Hours

Maximum : 100 Marks

*(Answer all questions)
Assume any data suitably*

PART - A

1. List out the factors affecting storm water sewage.
2. Differentiate between soil pipe and ventilation pipe.
3. Write a short note on detritus tank.
4. List out the various design considerations of Trickling filters.
5. Explain briefly about sludge digestion.
6. Write a short note on rural sanitation.
7. List out the measures adopted for the prevention of malaria.
8. List out the types and sources of solid waste.

(8×5 = 40)

PART - B

9. Write short notes on the following:
- (a) Sewer appurtenances.
 - (b) Principles of house drainage
 - (c) Hydraulics of sewers.

(OR)

d. For a circular sewer and a rectangular sewer to be hydraulically equivalent, find the relation between the depth of the rectangular sewer and the diameter of the circular sewer. Take the width of rectangular sewer as 1.5 times the depth and assume that only three sides of the rectangular sewer are wetted.

10. Write short notes on the following:
- (a) Skimming tanks
 - (b) Activated Sludge Process
 - (c) Grit chambers

(OR)

d. List out and explain the various Physical, Chemical and biological characteristics of sewage.

11. Write short notes on the following:
- (a) Sludge elutriation
 - (b) Sludge conditioning
 - (c) Surface and subsurface irrigation.

(OR)

d. Sketch and explain the phenomenon of assimilation capacity of streams.

12. Write short notes on the following:
- (a) Composting
 - (b) Incineration
 - (c) Sanitary landfill

(OR)

d. List out the BIG SIX criteria air pollutants and explain their sources and effects.

(4×15 = 60)
