

G 653

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Reg. No.....

Name.....

B.TECH. DEGREE EXAMINATION, MAY 2014

Seventh Semester

Branch—Civil Engineering

ENVIRONMENTAL ENGINEERING—I (C)

(Old Scheme—Prior to 2010 Admissions/Supplementary)



Time : Three Hours

Maximum : 100 Marks

Part A

*Answer all questions.
Each question carries 4 marks.*

1. What are the *two* major types of sources of water supplies ? Discuss the comparative merits and demerits of these type of sources.
2. What are the different tests to be made for determining the suitability of drinking water from a particular source ?
3. Explain the methods of detection and prevention of leaks in distribution system.
4. Briefly explain the classification of pumps.
5. ~~What is the function of trap and list out the requirements of good trap ?~~
6. Discuss the comparative merits and demerits of separate system and combined system.
7. Mention the principles of design of a manhole in sewerline. Where is it located ?
8. What is oxygen sag curve in stream pollution ? Explain in detail.
9. Explain the classification and sources of air pollutants.
10. What are the advantages and disadvantages of the method of solid waste disposal by landfilling of low lying areas ?

(10 × 4 = 40 marks)

Part B

*Answer all questions.
Each question carries 12 marks.*

11. What do you mean by the term per capita demand ? How is it estimated ? Also mention the different methods of forecasting the future population of a given town.
- Or*
12. Explain the physical, chemical and bacteriological analysis of water.
 13. With suitable examples, explain any *one* method of analysis of pipe networks.

Or

Turn over

14. Explain in detail, the materials which are commonly used as conduits in water supply system, bringing out their comparative merits and demerits.
15. Explain the various principles that should be kept in mind while designing a house drainage system. Also explain the tests, which can be conducted in house drainage system.

Or

16. The sewage flow for a city is 25 mlpd. If the avg 5-day 20°C BOD is 300 mg/L, compute the oxygen demand in Kg and the population equivalent of the sewage, given the BOD per capita as 75 gm/day.
17. Write a note on testing Ventilation of sewers.

Or

18. Explain steps involved in laying sewerage system.
19. Write notes on (a) Air pollution sources ; and (b) Green house effect.

Or

20. What is incineration of refuse ? How is it done ? State merits and demerits.

(5 × 12 = 60 marks)

