

G 714

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Reg. No.....

Name.....

**B.TECH. DEGREE EXAMINATION, MAY 2014**

**Seventh Semester**

Branch : Civil Engineering

CE 010 702 – ENVIRONMENTAL ENGINEERING – I (CE)

(2010 Admissions)

[Improvement/Supplementary]



Time : Three Hours

Maximum : 100 Marks

**Part A**

*Answer all questions.*

*Each question carries 3 marks.*

1. List the Indian standards for drinking water.
2. Explain hydraulic mean depth in pipe flow.
3. Distinguish between Surface water and Ground water.
4. Explain break point chlorination.
5. Explain gravity system of distribution of water.

(5 × 3 = 15 marks)

**Part B**

*Answer all questions.*

*Each question carries 5 marks.*

6. Discuss the chemical tests for analysis of drinking water.
7. Explain the working of water meter in pipe flow.
8. Write brief note on Clarifiers.
9. Sketch and explain Pressure filter.
10. Explain Balancing reservoirs.

(5 × 5 = 25 marks)

**Turn over**

**Part C**

*Answer all questions.*

*Each question carries 12 marks.*

11. Explain for Casting population. Discuss different methods for casting population. List the merits and demerits.

*Or*

12. What are the probable impurities in water and discuss their importance in water supply. What are water borne diseases?
13. Explain the function, classification and selection of pumps for water supply.

*Or*

14. List and explain various appurtenances in the water distribution systems. Give neat sketches wherever necessary.
15. Define Sedimentation. Briefly explain the theory of sedimentation.

*Or*

16. What are coagulants? List generally used coagulants in water purification. Explain how to fix the dosage of coagulants in water purification.
17. Explain the design, construction and operation of rapid sand filter. Sketch the filter.

*Or*

18. Define Chlorination. Discuss how to fix the chlorine demand for water. Explain pre-chlorination and post chlorination.
19. Explain colour, odour and taste in drinking water. Discuss how and why it is removed from drinking water.

*Or*

20. Explain Detection and prevention of leaks in distribution system.

(5 × 12 = 60 marks)

