

**B.TECH. DEGREE EXAMINATION, MAY 2015****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. Define per capita demand.
2. Explain in detail about coliforms.
3. What is meant by coagulation ?
4. List out the method of corrosion control in metal pipes. Explain any *one* method.
5. Write a note on minimum velocity in sewers.
6. List out the classification of manholes depends upon its depth. Explain any *one* type.
7. Briefly explain about clean outs in sewer lines.
8. What are the available ventilation methods ?
9. What are the important primary air pollutants ?
10. List out the method of disposal of refuse.

(10 × 4 = 40 marks)

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

11. Explain the factors governing the design period.  
*Or*
12. Write short notes on hardness of water and explain its types.
13. What are the types of intake ? Explain any *one* in detail.  
*Or*
14. List out the method of water distribution system? Explain any one method.

Turn over

15. Explain in briefly about Manhole with neat sketch.

*Or*

16. A 25 cm diameter with an invert slope of 1 in 400 is running full. Calculate the velocity and rate of flow in the sewer. Is it self cleansing ? Take  $n = 0.015$ .

17. Explain chemical oxygen demand of sewage in detail .

*Or*

18. Explain the method of testing the sewer pipes.

19. Explain in detail about primary and secondary air pollutants.

*Or*

20. Explain sanitary land filling method of solid waste disposal in detail.

(10 × 4 = 40 marks)

