



C16-C-503

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BOARD DIPLOMA EXAMINATION, (C-16)

OCT/NOV—2018

DCE—FIFTH SEMESTER EXAMINATION

ENVIRONMENTAL ENGINEERING

Time : 3 hours ]

Total Marks : 80

**PART—A**

3×10=30

**Instructions :** (1) Answer **all** questions.  
(2) Each question carries **three** marks.  
(3) Answers should be brief and straight to the point and shall not exceed *five* simple sentences.

1. State three objectives of a water supply scheme. 3
2. Define (a) aquiclude, and (b) aquifer.  $1\frac{1}{2}+1\frac{1}{2}$
3. Define sedimentation. 3
4. State the need for laboratory tests of water. 3
5. List the methods of chlorination. 3
6. What is the function of sluice valve? Draw the sketch. 1+2
7. Define the terms (a) sewage, (b) refuse, and (c) garbage. 3

- \* 8. Draw a sketch of basket handle type sewer. 3
9. List any three objects of treatment of sewage. 3
10. Define (a) soil pipe, (b) waste pipe, and (c) vent pipe. 3

### PART—B

10×5=50

**Instructions :** (1) Answer *any five* questions.  
 (2) Each question carries **ten** marks.  
 (3) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. Explain canal intake with a neat sketch. 5+5
12. Explain the construction and operation of slow sand filter. 10
13. Explain the 'dead end system' with a sketch and list out the advantages and disadvantages. 10
14. (a) State the factors affecting dry weather flow.  
 (b) State the requirements of good surface drains.
15. Explain various operations involved in laying of sewers. 10
16. Design a septic tank for a hostel of 200 students with a water supply of 100 lpcd. 10
- \* 17. Explain the construction and working of trickling filter with the help of a sketch. 10
18. State the requirements of good drainage in buildings. 10

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