



c09-c-605

**3724**

**BOARD DIPLOMA EXAMINATION, (C-09)**  
**MARCH/APRIL—2014**  
**DCE—SIXTH SEMESTER EXAMINATION**  
**ENVIRONMENTAL ENGINEERING—II**

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. Draw any three types of surface drains.
2. List any six sewer appurtenances.
3. Draw the flow diagram of sewage treatment plant.
4. List any three types of grit chambers based on 'type of cleaning'.
5. List any six methods of sludge disposal.
6. Define the following :
  - (a) Soil pipe
  - (b) Waste pipe
  - (c) Vent pipe
7. Classify the traps according to their uses.
8. Draw a pit privy and label the parts.
9. List any three man-made sources of air pollution.
10. What is meant by 'zoning'? How are the industrial areas classified as per this system?

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**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.** (a) Classify the sewerage systems. 3  
(b) Give any seven comparisons among three sewerage systems. 7
- 12.** Give the two systems of sewage collection and disposal. What is conservancy system? Give its three merits and demerits. 2+2+3+3
- 13.** (a) List the six steps involved in laying of sewers. 3  
(b) With the help of a sketch, explain the construction of a manhole. 7
- 14.** (a) Draw a neat sketch of fixed bar screens and explain its working. 7  
(b) List any three functions of grit chambers. 3
- 15.** Design a septic tank for a hostel of 200 students with a water supply of 100 lpcd. Use detention period method. 10
- 16.** (a) What is meant by 'composting'? Explain 'indore method of composting'. 6  
(b) List any four demerits of uncontrolled dumping. 4
- 17.** (a) List any five requirements of good drainage system. 5  
(b) With the help of a sketch, explain the one-pipe system of plumbing. 5
- 18.** (a) Draw a neat diagram of Janata model of biogas plant. 5  
(b) Explain the working of gravity settling chamber with a neat sketch. 5

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