



c09-c-605

3724

BOARD DIPLOMA EXAMINATION, (C-09)

OCT/NOV—2017

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. Define (a) sewage, (b) garbage and (c) sullage.
2. State any three points on which the selection of shape of sewer depends.
3. What is meant by strength of sewage?
4. Name the dewatering methods of digested sludge.
5. List any three characteristics of industrial sewage.
6. What is the function of floor trap?
7. What are the factors affecting the collection of refuse?
8. Draw the sketch of pit-privy and label the components.
9. List various methods by which air pollution can be controlled.
10. What is the principle on which a cyclone collector works?

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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) Compare the three systems of sewerage in any six aspects. 5+
(b) List any four shapes of surface drains and give two merits and demerits of any one shape. 5
- 12.** (a) Explain how various factors are considered in fixing gradient for sewer. 4
(b) List any six requirements of a good surface drain. 6
- 13.** What are manholes? Explain them with the help of neat sketch. 10
- 14.** With the help of neat sketch explain the construction and working of a trickling filter. 10
- 15.** (a) List any four objects of treatment of sewage. 4
(b) Design a septic tank for a hostel of 250 students with a water supply of 100 lpcd by using detention period 24 hrs. Assume $\frac{L}{B} = 2.5$. 6
- 16.** Explain the three types of plumbing systems in detail. 10
- 17.** (a) Explain with sketches (i) floor trap and (ii) interceptin trap. 6
(b) What are the points to be borne in mind during inspection of drainage system? 4
- 18.** (a) Explain the construction and working of Janata biogas plant with a sketch. 6
(b) List any four natural sources of air pollution. 4

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