



c09-c-605

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**BOARD DIPLOMA EXAMINATION, (C-09)
MARCH/APRIL—2016
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) sullage and (b) sewage.
2. What is the object of flushing tank?
3. Define (a) equalization and (b) proportioning.
4. Explain BOD.
5. State any three advantages of trickling filter.
6. List any three methods of collection of refuse.
7. What is meant by single-track system?
8. List any four rural sanitary latrines.
9. State the effects of air pollution.
10. State any three controlling methods of air pollution.

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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) List any four objects of sewage works.
(b) What is meant by combined system? List any two merits and demerits.
- 12.** (a) What are the factors that affect the dry weather flow?
(b) The catchment area of a town is 150 hectares out of which 25% with water tight roofs, 20% asphalt roads, 30% unpaved streets, 25% with lawns and gardens. The impermeability factors are 0·9, 0·85, 0·15 and 0·12 respectively. Calculate the storm water flow for rainfall intensity of 45 mm/hour by rational method.
- 13.** Explain various components of sewage pumping station with the help of sketch.
- 14.** Explain the principle and operation of primary sedimentation tank with the help of neat sketch.
- 15.** Explain different methods of sludge disposal.
- 16.** (a) Explain the tests which can be conducted in house drainage system.
(b) List any five principles of planning and design of house drainage.
- 17.** (a) What is meant by sanitary landfill? How is it done?
(b) Write any five points to be considered for the design of the composting plant.
- 18.** (a) Sketch a KVIC model biogas plant and label its parts.
(b) With the help of a sketch, briefly explain the working of a spray chamber.
