

# co9-c-605

## 3724

# BOARD DIPLOMA EXAMINATION, (C-09) OCT/NOV-2018 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. List any three factors affecting dry weather flow.
- 2. What is the necessity of an inlet in sewerage system?
- **3.** Distinguish between B.O.D and C.O.D.
- 4. What do you mean by sludge digestion?
- **5.** List any three objectives of treatment of sewage.
- **6.** Distinguish between composting and incineration.

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- 7. List any six sanitary fittings used in house drainage.
- 8. List any three factors affecting biogas production.
- **9.** What is meant by zoning?
- **10.** What are different types of wet collection device?

### PART—B

 $10 \times 5 = 50$ 

**Instructions**: (1) Answer any **five** questions.

- (2) Each question carries ten marks.
- (3) The answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.
- 11. Explain different systems of sewage collection and disposal.
- **12.** (a) List the requirements of a good surface drain.
  - (b) Design a separate sewer running full which receives only storm water from a water shed of area 50 hectares. The duration of storm is 15 minutes. The impermeability factor of the total area is 0.50. The coefficient of rugosity n = 0.013 and i = 0.01.
- **13.** (a) List different sewer appurtenances used.
  - (b) Explain the construction and working of flushing tank with the help of a neat sketch.
- **14.** Explain the method of removal of grit in a grit chamber with the help of a sketch.

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- **15.** (a) What do you mean by activated sludge process? Draw the flow diagram.
  - (b) What is meant by sewage sickness and how can it be prevented?
- **16.** Explain, in detail, the three types of bin system of collecting the refuse.
- **17.** What is meant by composting? Explain the Bangalore method of composting.
- **18.** (a) Explain the construction of pit privy with the help of a neat sketch.
  - (b) List the methods of control of air pollution.

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