

## 4717

## BOARD DIPLOMA EXAMINATION, (C-14) SEPTEMBER/OCTOBER - 2020 DCE—SIXTH SEMESTER EXAMINATION

## ENVIRONMENTAL ENGINEERING—II

Time: 3 hours [ Total Marks: 80

## PART—A

 $3 \times 10 = 30$ 

**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 the terms (a) sewage, (b) sewerage and (c) sullage.
- **2**. State the factors affecting dry weather flow.
- **3**. Sketch three cross sections of non-circular sewers.
- **4**. State three merits of stoneware sewers.
- **5**. State the objectives of providing manholes.
- **6.** What is sampling of sewage? Distinguish between Grab sampling and Composite sampling.
- **7**. State three objectives of treatment of sewage.
- **8**. Define the terms (a) incineration and (b) composting.
- **9**. State the reasons for the insanitation in rural areas.
- 10. State the manmade sources of air pollution.

- **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) Explain the water carriage system of collection and disposal of liquid waste.
  - (b) State the advantages of this system over the conservancy system. 4+6
- **12**. Explain the stepwise procedure of laying the sewers for the given alignment.
- 13. Explain the principles of treatment of industrial wastes.
- **14**. Sketch and explain the construction and working of a trickling filter. 2+4+4
- **15**. (a) State different methods of solid waste disposal.
  - (b) Describe the process of compositing of organic wastes. 4+6
- **16**. With the help of sketches and explain (a) one-pipe system and (b) two pipe system of plumbing of buildings. 5+5
- **17**. Explain the process developed by NEERI for the disinfection of rural wells.
- **18**. Sketch and explain the construction and working of a cyclone collector. 4+6

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