

## 6622

# BOARD DIPLOMA EXAMINATION, (C-16) JUNE/JULY—2022

#### **DCE - FIFTH SEMESTER EXAMINATION**

### ENVIRONMENTAL ENGINEERING

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. List various demands for which water is required.
- 2. State the requirements of a good pipe joint for water pipes.
- **3.** Define hardness. How hardness is caused to the water?
- **4.** Define coagulation. Name any four coagulants.
- **5.** List various methods of chlorination.
- **6.** Define (a) service pipe and (b) distribution pipe.
- 7. Define (a) sewage, (b) sullage and (c) refuge.
- 8. List the various shapes of sewers.
- **9.** Write any four objectives of treatment of sewage.
- **10.** Define (a) soil pipe, (b) vent pipe and (c) waste pipe.

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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 criterion for valuation is the content but not the length of the answer.
- **11.** Explain the reservoir intake with a neat sketch.
- **12.** Describe the working and operation of slow sand filter with a neat sketch.
- **13.** Explain different types of distribution systems with sketches.
- 14. What is meant by combined system? Write its merits and demerits.
- **15.** Explain about manhole with the help of a sketch.
- **16.** Explain the activated sludge process.
- **17.** Explain the construction and operation of a septic tank.
- **18.** Explain the procedure involved in the inspection, testing and maintenance of sanitary fittings of a building.

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