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BOARD DIPLOMA EXAMINATION, (C-16) OCTOBER/NOVEMBER—2023 DCE - FIFTH SEMESTER EXAMINATION

ENVIRONMENTAL ENGINEERING

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.** What are the different methods of forecasting the future population?
- **2.** Write any three differences between gravity conduit and pressure conduit with reference to flow.
- **3.** Write any six water borne diseases.
- **4.** What is meant by Schmutzdecke?
- **5.** Write any four requirements of a good coagulant.
- **6.** Define the following :
 - (a) Air gap
 - (b) Fire hydrant
 - (c) Service pipe
- **7.** What do you understand by the term catchment area?
- **8.** Under what circumstances we need the placing of inverted syphon?

/6622 1 [Contd...

- **9.** What do you mean by symbiosis?
- **10.** What is the function of floor trap?

PART—B

 $10 \times 5 = 50$

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.** What are the points to be considered in locating and designing intake structures?
- **12.** What is meant by pH value? What is its significance in public health engineering?
- **13.** Explain grid iron system with a sketch and mention the advantages and disadvantages.
- **14.** What do you understand by separate system? List its merits and demerits.
- **15.** Write any ten components of sewage pumping station and explain each.
- **16.** Explain the construction and operation of septic tank with a neat sketch.
- **17.** Write any ten differences between trickling filter and activated sludge process.
- **18.** What is meant by sanitary landfill? How is it done?

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