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BOARD DIPLOMA EXAMINATION, (C-09) JUNE-2019

DCE—SIXTH SEMESTER EXAMINATION

ENVIRONMENTAL ENGINEERING—II

[Total Marks: 80 Time: 3 hours]

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. State three objectives of sewage disposal.
 - 2. List six component parts of sewage pumping station.
 - 3. List any three physical characteristics of sewage.
 - 4. Draw the flow chart of sewage treatment plant.
 - 5. State three functions of screens.
 - 6. List three demerits of uncontrolled dumping.
 - 7. Define (a) soil pipe, (b) waste pipe and (c) vent pipe.
 - 8. List various types of rural sanitary latrines.
 - 9. State the effects of air pollution on physical properties of atmosphere.
 - 10. Draw neat sketch of louver collector.

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)* Define self cleaning velocity.

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- (b) Give any seven comparisons between three sewerage systems.
- **12.** Design a sewer which receives combined sewage from a small district at the rate of 800lt/sec. The sewer runs half full. Assume the value of coefficient of rugosity as 0.013 and bed slope of 1 in 100.
- **13.** (a) State the functions and location of manhole.

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(b) Draw the neat sketch of drop manhole.

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- **14.** Explain construction and working of trickling filter with neat sketch.
- **15.** List various sludge disposal methods and explain any three in detail.
- **16.** Explain three types of bin collection system of solid waste.
- **17.** State the requirements of a good building drainage system.
- **18.** (a) Draw neat sketch of Janata Biogas plant.

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(b) Explain the method of controlling air pollution by stacks.

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