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BOARD DIPLOMA EXAMINATION, (C-14)

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 effecting dry weather flow.

2. Define the following :

(a) Sewage

(b) Sullage

(c) Sewerage

3. Draw the basket handle section and semielliptical section of sewer.

4. Draw the neat sketches of vertical inlet and horizontal inlet.

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[*Contd...*

5. State various ^{*} units of the pumping station.
6. Write a short note on aerated lagoons.
7. Name any six methods of sludge disposal.
8. List any two merits and two demerits of uncontrolled dumping.
9. Draw a neat sketch of pit privy and label its parts.
10. What are the effects of air pollution on human beings.

PART—B

10×5=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. (a) Compare the three systems of sewerage in any six aspects.
(b) List any four shapes of surface drains and give any two merits and two demerits of any one shape.
12. (a) Briefly explain the method of testing sewers for leakage.
(b) Explain the working of Shone's ejector with the help of neat sketch.
13. Explain the construction, working, merits and demerits of trickling filter with the help of neat sketch.
14. (a) What is meant by sewage sickness? How can it be prevented?
(b) Design a septic tank for a group of houses with a population of 250 persons. The rate of water supply is 100 LPCD. Use detention method.

- 15.** (a) List various equipments used in composting of refuse from cities and give their functions.
(b) Draw a neat sketch of composting plant with all the equipments.
- 16.** (a) Write six general principles and precautions in laying of pipelines in the premises of buildings.
(b) What is plumbing? State its aims in building sanitation.
- 17.** Explain the working of KVIC model with the help of neat sketch.
- 18.** Write short notes on the following:
(a) Cyclone filter
(b) Electrostatic precipitator

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