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C14–C–602

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BOARD DIPLOMA EXAMINATION, (C–14)

OCT/NOV—2017

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. Define the following terms :
(a) Sewage
(b) Sewer
(c) Sullage

2. Draw the shapes of any three of surface drains.

3. What is a manhole? State the types of manholes. 1+2

4. Define 'dry weather flow'. State two factors affecting it. 1+2

5. Write three objectives of flushing tanks.

6. State three merits and three demerits of activated sludge process. 1½+1½

7. Define pH. What is the importance of pH value in sewage treatment? 1+2

8. Write any three differences between composting and incineration.

9. List three factors affecting bio-gas production.

10. Define air pollution. State any two effects of air pollution. 1+2

PART—B

10×5=50

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)* Write six differences between conservancy system and water carriage system of sewage collection. 6

(b) List four requirements of good surface drains. 4

12. Sketch and explain the working of an ordinary man hole. 4+6

13. Sketch a grit chamber and explain the method of removal of grit from it. 4+6

14. Explain the construction and working of a trickling filter with the help of a sketch. 6+4

15. Explain the following with neat sketch. : 5+5

(a) One-pipe system

(b) Single-stack system

16. Explain about sanitary landfill method of solid waste disposal.

17. Draw a neat sketch of a Janata model of bio-gas plant and explain its working . 4+6

18. Draw a sketch of a cyclone collector and explain its working. 4+6

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