C14–C–**602**

4717

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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