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C09-C-405

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BOARD DIPLOMA EXAMINATION, (C-09)
SEPTEMBER/OCTOBER - 2020
DCE—FOURTH SEMESTER EXAMINATION
ENVIRONMENTAL ENGINEERING—I

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 is meant by acid rain? List any three adverse effects of acid rain.
2. State arithmetical increase method and geometrical increase method of forecasting population of a town.
3. Draw the flowchart of typical water supply scheme.
4. Enumerate the different surface and sub-surface sources of water.
5. Define (a) yield of well, (b) circle of influence and (c) draw down.
6. What is the significance of pH value?
7. List any three methods of removal of hardness.
8. State the classification of service reservoirs.

- * 9. List demerits of grid iron system.
10. List any three precautions to be taken in plumbing work for buildings.

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) State any four objectives of a water supply scheme.
(b) Explain any six factors which influence the per capita demand.
12. Differentiate between infiltration wells and infiltration galleries with neat sketch.
13. State any four objects of the tests on water samples. Describe the method of sampling from a stream.
14. Describe the construction and working of slow sand filter with a neat sketch.
15. What is disinfection of water? Explain the methods of disinfection.
16. (a) Define (i) service pipe, (ii) communication pipe, (iii) distribution pipe and (iv) air gap.
(b) Explain with a neat sketch (i) check valve and (ii) air relief valve.
17. Name the different types of distribution systems and explain any two of them with neat sketch.
- * 18. How do you detect leakages in water distribution system and what are the preventive measures?
