



C09-C-405

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**BOARD DIPLOMA EXAMINATION, (C-09)
OCT/NOV—2018
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 ozone layer depletion and what are the effects.
2. List the factors affecting per capita demand.
3. What is the necessity of forecasting population.
4. List out various surface and sub-surface sources of water.
5. Define the “Yield’ Specific Yield” of wells and critical depression head.
6. Define Hardness and how hardness is caused to the water.
7. List the methods of Chlorination.
8. State where the following are used and their function.
i) Bend ii) Elbow iii) Stock Cock
9. What is the function of sluice valve? Draw the sketch.
10. Define Service pipe and communication pipe.

PART-B

10×5=50

- Instructions :** (1) Answer *any five* questions.
(2) Each questions carries **ten** marks.
(3) Answers should be comprehensive and the criteria for valuation are the content but not the length of the answer.

11. Population of town as obtained fro the senses report is as follows:

Year	1921	1931	1941	1951	1961	1971	1981
Population	25000	27500	38000	49000	67000	82000	1,05000

Estimate the population by (a) Geo matric increase method
(b) Incremental increase method in the year 2011 A.D.

- 12.** How do you conduct (i) Pumping test (ii) Recuperation test to determine yield of wells.
- 13.** Explain the working of a slow sand filter with the aid of sketch.
- 14.** Explain Biological tests of water in detail.
- 15.** What are the different methods of disinfection and explain briefly any four of them.
- 16.** Draw a neat sketch showing all the details of a water connection taking from water main to the building.
- 17.** How do you detect leakages and waht are the preventive measures.
- 18.** Describe the method of pipe laying and testing.

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