



C14-C-502

4619

BOARD DIPLOMA EXAMINATION, (C-14)

MARCH/APRIL—2018

DCE—FIFTH 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?
2. What is meant by design period?
3. What are the reasons of pollution of water?
4. State the classification of sources of water.
5. Define (a) aquifer and (b) aquiclude.
6. Define coagulation. List out commonly used coagulants.
7. Define temporary hardness in water. How can you remove it?
8. Define pH value.
9. List the various types of layouts in distribution system.
10. List the water supply fittings in the buildings.

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**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.** Estimate the future population of a town in 2040 by arithmetic method and geometrical method :

<i>Year</i>	:	1950	1960	1970	1980	1990	2000	2010
<i>Population</i>	:	60000	62100	65200	68000	70500	75800	80215

- 12.** Explain the construction of a socket and spigot joint with a sketch.
- 13.** Explain the river intake with a neat sketch.
- 14.** What are the points to be considered in the location and layout of a treatment plant?
- 15.** Explain the working of a rapid sand filter with a neat sketch.
- 16.** Explain the gravity distribution system with sketch.
- 17.** Explain about sluice valve with sketch.

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- 18.** What are measures to be taken to prevent leakages of water in pipe-lines?

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