



C14-C-502

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BOARD DIPLOMA EXAMINATION, (C-14)

OCT/NOV—2017

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 renewable and non-renewable energy sources? List one example for each.
2. List out various demands or requirements of water.
3. What are the methods used for forecasting population of a town?
4. Define aquifer and aquiclude.
5. List out various surface and sub-surface sources of water.
6. Define the terms :
 - (a) *E coli*
 - (b) MPN
7. What is meant by Schmutzdecke?
8. List the methods of chlorination.

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9. What do you mean by communication pipe and distribution pipe?
10. Write the preventive measures for leakages in distribution pipes.

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. What is per capita demand? State and explain any eight factors affecting per capita demand.
12. Write the types of intakes. Explain any two intakes in detail.
13. Explain with sketches of different joints used for connecting pipes.
14. Compare and contrast between slow sand filters and rapid sand filters (at least 10 points).
15. What are the different methods of disinfection? Explain briefly any four of them.
16. (a) State any six principles and precautions to be taken in laying pipe lines within the premises of building. 6
 (b) List any eight appurtenances used in distribution system. 4
17. (a) What do you understand by continuous and intermitted supply system of water? 6
 (b) Draw a neat sketch showing all the details of water connection taken from the water main to the building. 4
18. Explain different layouts of distribution system in detail with sketches.
