C14-C -**502**

4619

BOARD DIPLOMA EXAMINATION, (C-14)
MARCH /APRIL-2019
DCE - FIFTH SEMESTER EXAMINATION

ENVIRONMENTAL ENGINEERING – I

Time: 3 hours Max.Marks: 80

PART-A

10x3=30M

Instructions: 1) Answer all questions. Each question carries three marks.
2) Answers should be brief and straight to the point and shall not exceed five simple Sentences.

1) Briefly explain about "Green house effect".

2) List any six factors that affect the per capita demand.

3) Briefly explain variations in rate of demand.

4) Define (a) yield of well (b) cirlcle of influence (c) Draw down

5) Give any three merits and demerits of cast iron pipes?

6) List the different methods of disinfection.

7) Mention the perimisible limits for the following in drinking water as per BIS:(APR 2003)

   (a) Turbidity (b) Chlorides (c) Flourides.

8) List the mechanisims of purification in filtraton.

9) State any three requirements of good distribution system.

10) Define (a) stopcock (b) Ferrule (c) Goose neck.

PART-B

5x10=50M

Instructions: 1) Answer any five questions. Each question carries ten marks.
2) Answers should be comprehensive and the criterion for valuation is the content but not the length of the answer.

11. From the cenus data given below,estimate the population of the city for the year 2000 A.D. by incremental increase method.

Year	1900	1910	1920	1930	1940	1950	1960	1970
Population	21610	28560	37640	46520	55460	63710	71320	79540

12. How do you conduct (a) pumping test (b) Recuperation test to determine yield of well.

13. (a) Compare between infiltration gallery and infiltration well.
(b) Name the classification of wells based on the type of construction.

14. Define the term hardness. What is its significance in water supply system. name the tests to determine hardness.

15. Explain the various types of sedimentation tanks with neat sketch.

16. (a) Define (a) service pipe (b) communication pipe (c) distribution pipe (d) Air gap

(b) State any six principles and precautions to be taken in laying pipelines within the premises of building.

17. Explain advantages and disadvantages of following distribution systems with neat sketch.
(a) Grid iron system (b) circle system.

18. How do you detect leakages in water distribution system and what are the preventive measures?

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