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Roll No. :

320613(20)

B. E. (Sixth Semester) Examination, April-May 2021

(Civil Engg. Branch)

ENVIRONMENTAL ENGINEERING-I

Time Allowed : Three hours

Maximum Marks : 80

Note : Part (a) compulsory of 2 marks. Select any two parts from (b), (c) and (d) carries 7 marks each.

Unit-I

- (a) Define population forecasting.
- (b) Define intake and factors considered for intake site.

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- (c) Write various water demands required, discuss in detail.
- (d) Predict the population for the years 2021, 2031, 2041 from the following census figures of a town.

Year	Population
1961	8, 58, 545
1971	10, 15, 672
1981	12, 01, 553
1991	16, 91, 538
2001	20, 77, 820
2011	25, 85, 862

Unit-II

2. (a) What do you mean by sedimentation?
- (b) Write physical, chemical and biological characteristics of water.
- (c) Explain jar test with neat sketch.
- (d) Explain theory of sedimentation.

Unit-III

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3. (a) What is break point chlorination?
- (b) Differentiate between rapid and slow sand filters.
- (c) Write the name of several disinfection methods and describe one method with sketch.
- (d) Explain water filtration process in detail.

Unit-IV

4. (a) Define reservoirs.
- (b) Write requirement of Good Water Distribution System.
- (c) Discuss with neat sketch about zeolite method.
- (d) Write storage capacity of distribution reservoir.

Unit-V

5. (a) Define ppm and PM.
- (b) Describe effects of air pollution in detail.
- (c) Explain air pollution control methods in brief.
- (d) Justify with neat sketch about Electrostatic precipitator.

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