

BHARATI VIDYAPEETH INSTITUTE OF TECHNOLOGY

Question Bank (I-Scheme)

Name of subject: Public Health Engineering

Subject code: 22504

Unit Test: II

Course: CE

Semester: V

CHAPTER 1 (12 marks)

(Sources, Quantity and Quality of Water)

(2 Marks)

- List any four sources of surface water.
- What do you mean by demand of water
- Define Intake structure .
- Define design period .
- State the various methods of forecasting of population

(4 Marks)

- State the I.S. Standards for drinking water. i) pH ii) Turbidty iii) Total Solids iv) MPN/100ml
- (i) Estimate the population at the end of year 2021 by incremental increase method
Year 1971 1981 1991 2011 Population 79560 120320 160530 190670
- Enlist different types of Intakes. Explain anyone with neat sketch
- The following is the population data for a Town. Water supply scheme is to be designed for this town with a Design period of 30 years. Find the population at the end of year 2041 by Incremental increase method; also calculate total demand of water. Year 1971 1981 1991 2001 2011 Population 39701 50157 68107 93351 115307
- The population data for a town is given below. Forecast the population after three decades by Geometrical Increase method. Year 1980 1990 2000 2010 Population 67500 85350 107500 138000
- List various methods of forecasting of population. Explain Geometrical Increase method.
- Explain the necessity of analysis of water.
- State the precautions to be taken for collection of sample of water.
- State and explain factors affecting water demand
- State the importance of public health engineering

- k. Define design period and state factors affecting on it
- l. What is the need of analysis of water state the various tests on water
- m. Explain the procedure of collection of water sample for biological test.

CHAPTER 5 (12 marks)
(Characteristics and Treatment of Sewage)

(2 Marks)

- a. State any four objects of sewage treatment..
- b. Define anaerobic process.
- c. Define BOD
- d. Define C.O.D.

(4 Marks)

- a. Draw layout of sewage treatment plant.
- b. (b) Differentiate between (i) aerobic and anaerobic process (ii) BOD and COD
- c. Describe working of trickling filter with neat sketch.
- d. . Draw a neat labeled sketch of Trickling filter and explain its working.
- e. Draw flow diagram of activated sludge process and explain the function of each unit.
- f. Explain activated sludge process with help of neat sketch.
- g. Explain working of septic tank with neat sketch.
- h. Explain oxidation pond
- i. Describe recycle and reuse of domestic sewage
- j. State the role of Maharashtra pollution control board in prevention of pollution
- k. Explain Sludge digestion tank with neat sketch

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