1127

Code : 15CE32T

Register Number

WATER SUPPLY ENGINEERING

Time : 3 Hours]   [Max. Marks : 100

Instructions : (i)   Answer any **six** questions from Part – A. Each question carries **5** marks.

(ii)   Answer any **seven** questions from Part – B. Each question carries **10** marks.

PART – A

1. Define the term Ecology and ecosystem.   5

2. Explain about percapita demand.   5

3. List the impurities present in water.   5

4. Explain chlorination and its advantages.   5

5. Compare elevated reservoir with surface reservoir.   5

6. Explain functions of reflux valve with neat sketch.   5

7. Explain reverse osmosis system of water purification.   5

8. Explain rural water supply systems.   5

9. Describe the source of water pollution.   5

PART – B

1. (a) Summarize the merits and demerits of C.I pipe.   5

   (b) Explain surface sources of water.   5

2. The following data have been observed from the census department.   10

Sl. No.	Year	Population
1	1957	8,000
2	1967	12,000
3	1977	17,500
4	1987	22,000
5	1997	27,000
6	2007	36,000
7	2017	47,500

Estimate the population for the year 2027 and 2037 by Incremental Increase methods.

3. Explain with neat sketch River Intake.   10

4. (a) Describe Break point chlorination.   5

   (b) With neat sketch mention the parts of Flash Mixer.   5

5. Explain with net sketch function, construction, working and operation of slow sand filter.   10

6. (a) Write a note on water born disease.   5

   (b) Draw the flow diagrams of water treatment works.   5

7. Explain with sketch the following systems of lay-out in distribution system.
   (i) Radial system
   (ii) Grid Iron system   10

8. Sketch the constructional details and uses of following water supply fittings (i) Stop cock, (ii) Bib cock.   10

9. Mention the methods of recharging ground aquifer. Explain anyone.   10

10. What are the effects of water pollution ? Mention the control measures of water pollution.   10