

24289

B.Tech. 5th Semester (Civil) F-Scheme Examination,
December-2017

WATER SUPPLY AND TREATMENT

Paper-CE-305-F

Time allowed : 3 hours] [Maximum marks : 100

Note : (i) *Question No. 1 is compulsory. Attempt one question from each section.*

- (ii) *All questions carry equal marks.*
- (iii) *Assume missing data, if any suitably.*

1. Explain the following :

- (i) Water treatment
- (ii) Source of water supply
- (iii) Chemical analysis of water
- (iv) Aeration
- (v) Per capita demand
- (vi) Pressure filters
- (vii) Coagulants
- (viii) Conveyance system.

2½×8=20

Section-A

- 2. Explain in brief different methods used for predication of future population of a city, with reference to the design of a water supply system. 20
- 3. Describe in brief various important tests conducted for chemical examination of water. 20

24289-P-2-Q-9(17)

[P.T.O.]

Section-B

4. Classify various types of filters. Differentiate between the slow sand and rapid sand gravity filters. Compare the two in a tabular form. 20
5. (a) Explain the lime soda method of removing hardness of water. What are its advantages and disadvantages ?
(b) What do you understand by Ozonation ? What are its advantages and disadvantages ? 10×2=20

Section-C

6. (a) Describe C.I. pipes and steel pipes and give their comparison.
(b) What are the different types of pipe appurtenances? 10×2=20
7. (a) Define intake. Explain river intake with diagram.
(b) Explain the different types of water supply system with their advantages and disadvantages. 10×2=20

Section-D

8. Discuss in brief various methods of water distribution with diagram. Which method do you prefer ? 20
9. How do you determine the capacity of reservoir ? Explain the distribution reservoirs. 20