Reg. No. : | | | | | | | | | | |

Question Paper Code: 93104

B.E. / B.Tech. DEGREE EXAMINATION, DEC 2020

Third Semester

Civil Engineering

19UCE304 – WATER SUPPLY ENGINEERING

(Regulation 2019)

Duration: One hour Maximum: 30Marks

PART A - (6 x 1 = 6 Marks)

(Answer any six of the following questions)

1. The maximum permissible turbidity for drinking water CO1- R

   (a) 35NTU (b) 10NTU (c) 20NTU (d) 50NTU

2. The fluoride content in the drinking water should not exceed CO1- R

   (a) 200 mg/litre (b) 150 mg/litre (c) 50 mg/litre (d) 1 mg/litre

3. Distribution mains of any water supply, is normally designed for its average daily requirement CO2-R

   (a) 100% (b) 150% (c) 200% (d) 225%

4. In distribution pipes, drain valves are provided at CO2- R

   (a) Lower point (b) Higher point (c) Junction points (d) Any where

5. Most commonly used adsorbent is_____ CO3- U

   (a) Alum (b) Activated carbon (c) Resin (d) Lime

6. The Suitable method for disinfection of swimming pool water is CO3- R

   (a) Ultra violet rays treatment (b) Lime Treatment

   (c) Chlorination (d) Use of Potassium Permanganate

7. The most ideal disinfectant used for drinking water throughout the world, is CO1- U

   (a) Alum (b) Lime (c) Chlorine (d) Nitrogen

8. Zero hardness of water is achieved by CO1- R

   (a) Lime soda process (b) Excess lime treatment

   (c) Ion exchange membrane (d) Excess alum dosage

9. The purpose of surge tank in a pipeline is CO2- U

(a) To store water (b) Increase pressure

(c) Store overflowing water (d) Protect pipeline

10. Distribution mains of any water supply, is normally designed for its average daily requirement CO1- U

(a) 100% (b) 150% (c) 200% (d) 250%

PART – B (3 x 8= 24 Marks)

(Answer any three of the following questions)

11.	Enumerate and explain the various forms of ground water sources.	CO1- U	(8)
12.	Illustrate the different types of pipe appurtenances used in water supply project.	CO2- Ana	(8)
13.	Explain about water treatment process with flow diagram.	CO3- Ana	(8)
14.	Formulate the types of membrane process with the driving force, mechanism, pore size and application. Suggest as suitable membrane for bacteria removal.	CO2- App	(8)
15.	How to distribute water for multi-storeyed building? Explain in detail.	CO3- Ana	(8)