

No. of Printed Pages : 4
Roll No.

180742/170742/120742
/030742

**4th Sem / Civil, Brick Tech., Constr. Mgmt.,
Highway Engg.**

**Subject:- Water supply and Waste Water Engineering
/ Public Health Engg.**

Time : 3Hrs. M.M. : 100

SECTION-A

Note: Multiple choice questions. All questions are compulsory
(10x1=10)

Q.1 Water demand of a city includes

- a) domestic water demand
- b) fire and public use demand
- c) commercial and industrial demand
- d) all of the above

Q.2 Aeration is done for the removal of

- a) colour b) hardness
- c) turbidity d) bad odour

Q.3 A GI pipe has a coating of

- a) zinc b) silver
- c) lead d) aluminium

Q.4 The lowering of pipes is to be done with the help of

- a) derrick b) both a & b
- c) rope d) none of the above

Q.5 The waste which contain organic matter, light soil is called

- a) liquid waste b) semi liquid Waste
- c) dry waste d) can't say

Q.6 Storm sewage is the flow of water

- a) runs over the ground
- b) evaporates through atmosphere
- c) percolates through ground
- d) all of above

Q.7 The width of trench should be at least

- a) 75 mm b) 300 mm
- c) 175 mm d) none of these

Q.8 PH-test of sewage determines the

- a) alkalinity of sewage b) Turbidity of sewage
- c) acidity of sewage d) both a & b

Q.9 _____ sludge is a sludge which remains for a longer period in the tank before removal.

- a) raw b) stale
- c) septic d) activated

Q.10 The process of self purification depends upon

- a) sunlight
- b) temperature of sewage
- c) velocity of water
- d) all of the above

(1) 180742/170742/120742
/030742

(2) 180742/170742/120742
/030742

SECTION-B

Note: Objective type questions. All questions are compulsory. (10x1=10)

- Q.11 What is public use demand?
- Q.12 The _____ impurities give colour, odour and turbidity to water.
- Q.13 _____ pipes are easy to join
- Q.14 Minimum cover for a water supply pipeline should be_____
- Q.15 The process of supporting the sides of trenches by wooden members is termed as _____ of trenches.
- Q.16 Define soil waste?
- Q.17 What is D.F.W?
- Q.18 Overflow weir is a common device used for storm relief works. (True/False)
- Q.19 Minimum numbers of filters required are _____
- Q.20 Sewer of small size are cleaned by _____

SECTION-C

Note: Short answer type questions. Attempt any twelve questions out of fifteen questions. (12x5=60)

- Q.21 Define per capita demand. What are the factors affecting per capita demand?
- Q.22 Explain various types of water demands
- Q.23 Draw a flow diagram of water supply system.
- Q.24 What are bacteriological tests done on water? Give its significance.
- Q.25 Explain the process of plain sedimentation. Also give its advantages.

(3) 180742/170742/120742
/030742

- Q.26 Differentiate between Dead End System and Grid Iron System.
- Q.27 Explain tests conducted for checking of pipes.
- Q.28 What are general principles for selection of pipes.
- Q.29 Explain water carriage system, give its disadvantages.
- Q.30 Explain ventilating shaft give its functions.
- Q.31 How lowering and handling of sewers is done?
- Q.32 Write a short note on B.O.D. Also give its limitations.
- Q.33 Write a short note on Sewage disposal by land treatment.
- Q.34 What is aeration tank? Explain with the help of diagram
- Q.35 What are traps? Give its classification. Also draw any three traps.

SECTION-D

Note: Long answer type questions. Attempt any two questions out of three questions. (2x10=20)

- Q.36 What is sedimentation with coagulation? Explain various units of coagulation sedimentation tank with the help of diagram.
- Q.37 Explain appurtenances used for controlling the flow of water. Also draw diagrams.
- Q.38 a) Explain the process of activated sludge.
b) What are screens its type, also give its objectives. How cleaning and disposal of screening done?

(2420)

(4) 180742/170742/120742
/030742