Chettinad
College of Engineering & Technology
Approved by AICTE, New Delhi and Affiliated to Anna University, Chennai.

Department of Civil Engineering

EN8592 – WASTEWATER ENGINEERING

Unit I - MCQ Bank

1. For a continuous flow type of sedimentation tanks

(A) Width of the tank is normally kept about 6 m

(B) Length of the tank is normally kept 4 to 5 times the width

(C) Maximum horizontal flow velocity is limited to 0.3 m/minute

(D) All the above

Answer:(D)

2. The asbestos cement sewers are

(A) Light in weight

(B) Not structurally strong to bear large compressive stress

(C) Susceptible to corrosion by sulphuric acid

(D) All the above

Answer:(D)

3. For efficient working of a sewer, it must be ensured that

(A) Minimum velocity of 0.45 m/sec, is maintained at its minimum flow

(B) A maximum velocity of 0.90 m/sec, is maintained at its maximum flow

(C) Both (a) and (b)

(D) Neither (a) nor (b)

Answer:(C)

4. Pick up the correct statement from the following:

(A) The sewer pipes of sizes less than 0.4 m diameter are designed as running full at maximum discharge

(B) The sewer pipes of sizes greater than 0.4 m diameter are designed as running 2/3rd or 3/4th full at maximum discharge

(C) The minimum design velocity of sewer pipes is taken as 0.8 m/sec

(D) All the above

Answer:(D)

5. Pick up the correct statement from the following:

(A) Maximum daily flow = 2 times the average daily flow

(B) Maximum daily flow = ⅔ × average daily flow

(C) Sewers are designed for minimum permissible velocity at minimum flow

(D) All the above

Answer:(D)

6. Bottom openings 15 cm × 15 cm in the standing baffle wall are provided

(A) 15 cm c/c

(B) 22.5 cm c/c

(C) 30 cm c/c

(D) 50 cm c/c

Answer:(B)

7. The pressure exerted by

(A) The sewage when running full from inside, is called internal pressure

(B) The internal pressure if any, causes tensile stress in the pipe material

(C) Pressure sewers are designed to be safe in tension

(D) All the above

Answer:(D)

8. For drainage pipes in buildings the test applied before putting them to use, is

(A) Water test

(B) Smoke test

(C) Straightness test

(D) All the above

Answer:(B)

9. No treatment of the sewage is given if dilution factor is

(A) Less than 150

(B) Between 150 to 200

(C) Between 200 to 300

(D) More than 500

Answer:(D)

10. Which of the following pumps in used to pump sewage solids with liquid sewage without clogging the pump is?

(A) Centrifugal pump

(B) Pneumatic ejector

(C) Reciprocating pump

(D) None of these

Answer:(A)

11. Acid regression stage of sludge digestion at a temperature 21°C extends over a period of

(A) 15 days

(B) 30 days

(C) 60 days

(D) 90 days

Answer:(D)

12. Pick up the correct statement from the following:

(A) Small sewers are cleaned by flushing

(B) Medium sewers are cleaned by cane rodding

(C) Medium sewers may be cleaned by pills

(D) All the above

Answer:(D)

13. The coagulant which is generally not used for treating the sewage, is

(A) Alum

(B) Ferric chloride

(C) Ferric sulphate

(D) Chlorinated coppers

Answer:(A)

14. The layers of vegetable wastes and night soil alternatively piled above the ground to form a mound, is called

(A) A heap

(B) Plateau

(C) Windrow

(D) None of these

Answer:(D)

15. If the flame of a miner's safety lamp in the upper layers of the sewer forms an explosive, the sewer certainly contains

(A) Hydrogen sulphide

(B) Carbon dioxide

(C) Methane

(D) Oxygen

Answer:(D)

16. The gas which may cause explosion in sewers, is

(A) Carbondioxide

(B) Methane

(C) Ammonia

(D) Carbon monoxide

Answer:(B)

17. Pick up the correct statement from the following:

(A) The water supply pipes carry pure water free from solid particles

(B) The water supply pipes get clogged if flow velocity is less than self cleansing velocity

(C) The sewers may be carried up and down the hills and valleys

(D) The sewer pipes are generally laid along level hills

Answer:(A)

18. The sewer pipes

(A) Carry sewage as gravity conduits

(B) Are designed for generating self-cleansing velocities at different discharge

(C) Should resist the wear and tear caused due to abrasion

(D) All the above

Answer:(D)

19. The settling velocity of the particles larger than 0.06 mm in a settling tank of depth 2.4 is 0.33 m per sec. The detention period recommended for the tank, is

(A) 30 minutes

(B) 1 hour

(C) 1 hour and 30 minutes

(D) 2 hours

Answer:(D)

20. The Chezy's constant C in the formula V = C √rs depends upon

(A) Size of the sewer

(B) Shape of the sewer

(C) Roughness of sewer surface

(D) All the above

Answer:(D)

21. The discharge per unit plan area of a sedimentation tank, is generally called

(A) Over flow rate

(B) Surface loading

(C) Over flow velocity

(D) All the above

Answer:(D)

22. To prevent settling down of sewage both at the bottom and on the sides of a large sewer, self-cleaning velocity recommended for Indian conditions, is

 (A) 0.50 m/sec

(B) 0.60 m/sec

(C) 0.70 m/sec

(D) 0.75 m/sec

Answer:(D)

23. Assertion (A): The determination of pH value of sewerage is important.

Reason (R): The efficiency of certain treatment methods depends upon the availability of pH value.

(A) Both A and R are true and R is the correct explanation of A

(B) Both A and R are true but R is not a correct explanation of A

(C) A is true but R is false

(D) A is false but R is true

Answer:(A)

24. The normal values of over flow rates for sedimentation tanks using coagulant, ranges between

(A) 25,000 to 35,000 liters/sqm/day

(B) 40,000 to 50,000 liters/sqm/day

(C) 50,000 to 60,000 liters/sqm/day

(D) 80,000 to 100,000 liters/sqm/day

Answer:(C)

25. Sewer pipes are designed for maximum discharge with 25% to 33% vacant cross-sectional area for

(A) Unexpected large scale infiltration of stream water

(B) Unexpected increase in the population

(C) Under estimates of maximum and average flows

(D) All of the above

Answer:(D)