

PARUL UNIVERSITY
FACULTY OF ENGINEERING & TECHNOLOGY
B.Tech. Winter 2022 - 23 Examination

Semester: 3
Subject Code: 203115201
Subject Name: BUILDING SERVICES

Date: 03/10/2022
Time: 02:00pm to 4:30pm
Total Marks: 60

Instructions:

1. All questions are compulsory.
2. Figures to the right indicate full marks.
3. Make suitable assumptions wherever necessary.
4. Start new question on new page.

Q.1 Objective Type Questions - (All are compulsory) (Each of one mark) (15)

1. The average quantity of water (in lpcd) required for domestic purposes according to IS code is

- A) 100 B) 120 C) 70 D) 135

2. _____ valves are used to discharge air from the water pipelines.

- A) Air relief valve B) Sluice valve C) Pressure Relief valve D) Altitude valve

3. _____ is any work involved in fixing or unfixing any pipe, plumbing fixture or appliance including; any trap, waste or soil pipe, ventilation pipe, or overflow pipe and any pipe that supplies or is intended to supply water.

- A) Domestic Plumbing B) Flooring C) Sanitary Plumbing D) Plastering and Putting

4. Which of the following is incorrect regarding circular sewer?

- A) It is easily manufactured B) It offers more opportunities for deposits
 C) It is the most economical section C) It has uniform curvature

5. What is the minimum water pressure available at fire hydrants?

- A) 80-100 kN/m² B) 100-150 kN/m² C) 40-60 kN/m² D) 150-200 kN/m²

6. What is the minimum water pressure available at fire hydrants?

- A) 100 mm B) 150mm C) 200 mm D) 175mm

7. In india which type of sewer systems are preferred?

- A) Partial B) Combined C) Direct D) Separate

8. If sizes of the sewers are _____ choking problems are less.

- A) Large B) Small C) Big D) Minute

9. The legal entity that is responsible for the wastewater collection system is called _____

- A) Collection system agency B) Sewer system agency
 C) Water collection agency D) Strom collection agency

10. What are the structures those constructed at suitable intervals along the sewerage system are called?

- A) Manholes B) Catch Basins C) Pumps D) Sewer Appurtenances

11. Partial sewers carry a part of stormwater to sanitary sewers: True/False

12. In partial systems, there is no over load on the treatment plants. True/False

13. What are the special equipment and devices are used for cleaning sewers?

14. Enlist any four the factors affecting water demand.

15. What is plumbing valves?

Q.2 Answer the following questions. (Attempt any three) (15)

A) What are the factors affecting water losses in water distribution systems?

B) What are the different sources of sanitary sewage?

C) What are the different types of pumps?

D) How do you calculate average daily sewage flow?

Q.3 A) What are the types of pipe fittings and their functions? (07)

B) What kind of materials are used in the construction of sewage system? (08)

OR

B) Which type of maintenance should be carried out on a sewerage system? (08)

Q.4 A) How does the quantity of sanitary sewage vary with the rate? (07)

OR

A) What is the difference between a valve and a pipe fitting? (07)

B) What is a sanitation system? (08)