

CBCS SCHEME

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21ARC35

Third Semester B.Arch. Degree Examination, June/July 2024 Building Services – I

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain in detail the conservancy and water carriage systems in Sanitation. (10 Marks)
b. Explain briefly various forms of sources for water supply. (10 Marks)

OR

- 2 a. Describe the four methods of layouts of water supply distribution in a City. (08 Marks)
b. Calculate the water requirement per day for residential use / person for the following population.

Year	Population
1970	35000
1980	42000
1990	58000
2000	72000

(12 Marks)

Module-2

- 3 a. Briefly explain different types of sewerage systems, along with their merits and demerits. (12 Marks)
b. Write a short note on : (i) Gully Trap (ii) Manhole (08 Marks)

OR

- 4 a. Discuss the various stages involved in water treatment process with schematic diagram. (12 Marks)
b. With the help of neat sketch, explain "Rainwater Harvesting". (08 Marks)

Module-3

- 5 What are Traps? Explain the requirement of good Trap. Explain the types of traps based on their shapes and functions. (20 Marks)

OR

- 6 a. Explain and describe two different types of pipe construction / material for water supply. (10 Marks)
b. Explain : (i) Gate valve (ii) Globe valve (10 Marks)

Module-4

- 7 a. Sketch and explain the functioning of water closet and flushing Cistern. (12 Marks)
b. Explain :
(i) Taps (ii) Mixer (iii) Bathtub (iv) Rain showers (08 Marks)

OR

- 8 What is Solid Waste Management? List and discuss various sources of Waste and Waste produced by these sources. (20 Marks)

Module-5

- 9 a. What are the causes for fire outbreak in buildings? Explain Reasons for loss of life due to fire. (10 Marks)
b. Explain : (i) Smoke Detectors (ii) Fire Alarms (10 Marks)

OR

- 10 a. With neat sketch, explain working of Solar Water Heater. (10 Marks)
b. Explain the working of Central LPG supply system in High Rise Buildings. (10 Marks)
