

CBCS SCHEME



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18ARC43

Fourth Semester B.Arch. Degree Examination, June/July 2026 Building Services – I

Time: 3 hrs.

Max. Marks: 100

- Note: 1. Answer any FIVE full questions, choosing ONE full question from each module.
2. Draw relevant sketches.

Module-1

- 1 a. How is water borne diseases causes? Explain. (05 Marks)
- b. What is meant by potable water? (05 Marks)
- c. Explain water carriage and water conservancy system. Compare the two systems. (10 Marks)

OR

- 2 Discuss various stages involved in water treatment process. Support the answer with neat sketches. (20 Marks)

Module-2

- 3 a. What is the difference between sewage and sullage? (04 Marks)
- b. Describe the various components of both rain water harvesting and roof top harvesting. (08 Marks)
- c. What are the patterns of refuse collection? Explain any 2. (08 Marks)

OR

- 4 a. What are the methods of sewage conveyance? Explain any ONE in detail. (05 Marks)
- b. What is waste water? Explain the layout of a treatment plant in detail. (15 Marks)

Module-3

- 5 a. What are traps? Explain the requirements of good trap. (10 Marks)
- b. Why Sunken Slab (Sunk Slab) need for bathroom? Mention the application of Sunken Slab. What are the advantages and disadvantages? (10 Marks)

Important Note: 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg. 42+8 = 50, will be treated as malpractice.

OR

- 6 a. Explain single stack and two stack system. Mention the suitability of each system. (10 Marks)
- b. Sketch and explain i) Gate valve ii) Floor trap. (10 Marks)

Module-4

- 7 a. Sketch and explain the functioning of a bath tub and its classification based on uses. (10 Marks)
- b. What are the objectives and the best methods of waste disposal? Describe the layout of a waste disposal unit. (10 Marks)

OR

- 8 a. Explain the properties and differences between a Siphonic action WC and a wash down WC with neat sketches. (10 Marks)
- b. Define and explain briefly :
i) Hazardous waste ii) Landfill iii) Incineration iv) Recycling v) Manure pits. (10 Marks)

Module-5

- 9 a. Discuss the importance of five escape corridors and staircases, explain with illustrations its design consideration. (10 Marks)
- b. What are wet and dry risers explain with relevant sketches. (10 Marks)

OR

- 10 Explain with neat sketch the central LPG supply system in high rise residential building.

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(20 Marks)