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Fourth Semester B.Arch. Degree Examination, Dec.2024/Jan.2025 Building Services – I

Time: 3 hrs.

Max. Marks: 100

*Note: 1. Answer any FIVE full questions, choosing one full question from each module.
2. Sketches should be neat and labeled.*

Module-1

- 1 a. Write a note on the History of water supply and sanitation. Elaborate on the same in Indus Valley civilization. (10 Marks)
- b. What are the different sources of water supply? (10 Marks)

OR

- 2 a. What is the purpose of water treatment? (05 Marks)
- b. What are the step-by-step processes involved in water treatment? Dipict as a flow chart. (05 Marks)
- c. Explain the process of sedimentation in water treatment with the help of a neat sketch. (10 Marks)

Module-2

- 3 a. What is a manhole and what are its components? Explain with a sketch. (10 Marks)
- b. Why is ventilation of sewers important? Sketch and explain a typical ventilating shaft. (10 Marks)

OR

- 4 Explain the working of trickling filters in sewage treatment process with the help of a neat sketch. (20 Marks)

Module-3

- 5 Why are traps used? What are its various types? Sketch any one of P, Q or S trap. (20 Marks)

OR

- 6 a. In the plan showing a typical drainage layout identify 1, 2, 3, 4 and 5. (05 Marks)
- b. Explain with a schematic sketch the single stack system of drainage in a multi-storeyed building. (15 Marks)

Module-4

- 7 a. What do solid wastes mainly consist of and how are they collected? (15 Marks)
- b. Name any 5 common methods of refuse disposal. (05 Marks)

OR

- 8 a. Write short notes on the following:
 - i) Geyser
 - ii) Boilers
 - iii) Heat pumps. (09 Marks)
- b. Draw a neat sketch of a typical bath tub and explain its working. (11 Marks)

Module-5

- 9 a. What are the materials used for fire fighting? Name any five. (10 Marks)
b. What are Fire Hydrants? When are they used? (10 Marks)

OR

- 10 How is hot water obtained by solar hot water generation? Explain with a neat sketch. What are its advantages? (20 Marks)
