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Third Semester B.Arch. Degree Examination, June/July 2025 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 the importance of sanitation and its history with respect to human civilization in India. (10 Marks)
- b. Explain the following systems of water supply. Mention their advantages and disadvantage.
i) Gravity flow ii) hydropneumatic. (10 Marks)

OR

- 2 a. Write short notes on the following sanitary systems :
i) Conservancy system ii) Water carriage system. (10 Marks)
- b. With a diagram, explain the process of water treatment from the source to house. (10 Marks)

Module-2

- 3 a. What is difference between aerobic and anaerobic sewage treatment? Which is better? (10 Marks)
- b. Explain the 2 types of storm water drains with diagrams. (10 Marks)

OR

- 4 a. With diagram, explain a sewage treatment plant. Name the parts. (10 Marks)
- b. Write short notes on :
i) Rain water harvesting
ii) Ground water recharge (10 Marks)

Module-3

- 5 a. What are traps and its use? Explain floor trap and bottle trap. (10 Marks)
- b. Name 5 materials used to make the pipes in plumbing system in a building. (10 Marks)

OR

- 6 a. Explain advantages and disadvantages and difference between following :
i) Single stack system ii) Double stack system. (10 Marks)
- b. Write short notes on :
i) Gate valve ii) Globe valve. (10 Marks)

Module-4

- 7 a. Distinguish and explain :
i) Steam bath unit
ii) Sauna bath unit (10 Marks)
- b. Explain the concept "Waste to wealth" with respect to garbage management. (10 Marks)

OR

- 8 a. Distinguish and explain :
i) Flush valve and Flush tank
ii) Indian water closet and European water closet (10 Marks)
- b. Write short notes on :
i) Biomethanation
ii) Varmicompost. (10 Marks)

Module-5

- 9 a. Explain the working of :
i) Smoke Alarm
ii) Heat Alarm (10 Marks)
- b. Explain with a diagram how the solar water heater works? What are its benefits? (10 Marks)

OR

- 10 a. Explain the use of following :
i) Wet Riser
ii) Sprinkler (10 Marks)
- b. Explain importance of fire safety system in a building. What are the causes of a fire in a building. (10 Marks)
