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Fourth Semester B. Arch. Degree Examination, June/July 2024 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 neat sketches wherever necessary.
3. Assume suitable data wherever necessary.

Module-1

- 1 a. What are the objectives and importance of sanitation? (08 Marks)
b. Write a note on Urban and Rural sanitation issues in India. (12 Marks)

OR

- 2 a. Discuss various types of water demand in a city. (10 Marks)
b. Explain in brief the process of water treatment. (10 Marks)

Module-2

- 3 a. Briefly discuss different types of sewer systems. (08 Marks)
b. With neat sketches, explain :
i) Manhole
ii) Different types of Traps. (12 Marks)

OR

- 4 a. Explain the difference between Aerobic and Anaerobic digestion of sludge. (10 Marks)
b. Explain the importance of ventilation of STP. (10 Marks)

Module-3

- 5 a. Discuss Roof Top Rainwater Collection potential/Benefits. (10 Marks)
b. Write a note on different types of Plumbing pipes. (10 Marks)

OR

- 6 With neat sketches, explain the following :
i) One pipe system
ii) Two pipe system
iii) Single stack system
iv) Single stack partially ventilated system. (20 Marks)

Module-4

- 7 Draw a single line water supply and drainage plan for a 2-BHK residence with all fixtures in Kitchen ; Baths and Utility for Sump and OHT calculation :
Site - 30' × 40' with 3' setback all sides. (20 Marks)

OR

- 8 Write short notes with sketches :
i) Symphonic pattern WC
ii) Vermi composting
iii) BIB and PILLAR Tab
iv) BIO methanation. (20 Marks)

Module-5

- 9 a. Explain in brief the important components items of fire protection requirements in a building. (10 Marks)
- b. Write a note on active and passive Solar heating system. (10 Marks)

OR

10 Write short notes on following with relevant sketches :

- i) Fire control Room
- ii) Smoke Detectors
- iii) Central LPG supply system
- iv) Medical Gas Supply.

(20 Marks)
