

CBCS SCHEME



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21ARC35

Third Semester B.Arch. Degree Examination, June/July 2026 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 briefly history of sanitation with respect to human civilization. (10 Marks)
- b. Write short notes on:
 - i) Source of water supply
 - ii) Quantity of water supply for different uses as per National Standards. (10 Marks)

OR

- 2 a. Explain Urban and Rural Sanitation. (10 Marks)
- b. Write short note on:
 - i) Gravity system in water supply
 - ii) Hydro-Pneumatic system in water supply (10 Marks)

Module-2

- 3 a.
 - i) Explain different objectives of sewage treatment.
 - ii) Explain Aerobic and Anaerobic method used for sewerage treatment. (10 Marks)
- b.
 - i) Write short note on materials used for construction of sewerage network.
 - ii) Draw sketch of a manhole and describe the purpose of manhole in sewerage system. (10 Marks)

OR

- 4 a. Explain different flood control measures. (10 Marks)
- b. Explain how to reduce storm water load on municipal system. (10 Marks)

Module-3

- 5 a. Write short note with sketches on :
 - i) P-Trap
 - ii) Bottle Trap
 - iii) Q-Trap
 - iv) S-Trap (15 Marks)
- b. Explain what is shaft in plumbing. Mention different sizes used and their purpose. (05 Marks)

OR

- 6 Explain single stack plumbing system with sketch. (20 Marks)

Module-4

- 7 Draw sketch of water closet, bidet and wash basin. Explain fixing measurements and design considerations for these sanitary fittings. (20 Marks)

OR

- 8 Write short note on:

- a. Garden waste
- b. Commercial waste
- c. Biomethanation
- d. Vermicomposting.

(20 Marks)

Module-5

- 9 a. Explain fire classification of buildings and water storage requirements for life safety. (10 Marks)
- b. Explain major causes of fire and code of practice used to reduce the impact on loss of life. (10 Marks)

OR

- 10 a. What are special requirements to be considered for solar hot water generation and central LPG supply system? (10 Marks)
- b. Explain the roll of following interms of fire safety
- i) Smoke detectors (03 Marks)
 - ii) Fire alarms (03 Marks)
 - iii) Fire escape stair (04 Marks)

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