

# CBCS SCHEME



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18ARC43

## Fourth Semester B.Arch. Degree Examination, Dec.2023/Jan.2024 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. Define the terms sanitation and hygiene. (05 Marks)
- b. Distinguish between waterborne, water related and water based diseases, is epidemic diseases and pandemic disease the same. Explain with quoting current situation. (15 Marks)

OR

- 2 What are the different stages of water treatment process? With neat diagram narrate the complete process till softening and disinfecting. (20 Marks)

### Module-2

- 3 With the help of a neat sketch show the house drainage and water supply system for a small house layout connecting all fixtures in W.C, Kitchen, Bath, Utility, Underground tank and over head tank. (20 Marks)

OR

- 4 What is storm water management? Discuss various methods of rain water harvesting and which method is ideal for a roof top harvesting. Narrate with illustration. (20 Marks)

### Module-3

- 5 What are traps? Explain the requirements of good trap? With illustration explain the types of traps and its functions. (20 Marks)

OR

- 6 What do you understand about stack effect? With neat sketches explain in detail one pipe and two pipe systems. (20 Marks)

### Module-4

- 7 Explain with neat sketches the sanitary fixtures, fittings and wellness products with 2 examples in each respectively. (20 Marks)

OR

- 8 Discuss in detail the solid waste management, types of waste and in India what are the methods adopted to manage waste? Is waste to wealth concept successful? Explain. (20 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. (20 Marks)

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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.