CBCS SCHEME

Acharya Institute of Architecture LIBRARY Bangalore

USN | | | | | | | | | | |

21ARC35

Third Semester B.Arch. Degree Examination, Dec.2023/Jan.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 the sketches wherever required.*

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.

Module-1

1 a. Explain the history of sanitation in India with respect to human civilization. (06 Marks)
b. What are the factors that would affect the rate of demand for water? (06 Marks)
c. Explain with sketches gravity system and Dual system of water supply. (08 Marks)

OR

2 a. Describe any 2 methods of layout of water supply distribution in an area of a Town/City. (08 Marks)
b. Explain what is the purpose of water treatment. (04 Marks)
c. Explain minor methods of disinfecting water. (08 Marks)

Module-2

3 a. Differentiate between Sewage and Sullage. (04 Marks)
b. Differentiate between conservancy sewage system and water sewage system. (06 Marks)
c. What is trap? Explain with sketches Nanitrap, Gully trap and Intercepting trap. (10 Marks)

OR

4 a. Explain the objective of Sewage treatment and typical STP layout. (10 Marks)
b. What is storm water management and explain advantages of rain water harvesting. (10 Marks)

Module-3

5 Explain what is valve and with neat sketches, explain gate valve, Globe valve and butterfly valve. (20 Marks)

OR

6 Explain following :
i) Single stack system
ii) One pipe system
iii) One pipe partially ventilated system
iv) Two pipe system (20 Marks)

Module-4

7 Explain following sanitary fittings with the neat sketches.
i) Water closets
ii) Bath tub
iii) Bell flushing cistern (20 Marks)

OR

8 a. Explain different types of waste generated and its sources. (10 Marks)
b. Explain collection, segregation treatment and disposal of garbage. (10 Marks)

Module-5

9 a. Explain fire hydrant and its necessity. (10 Marks)
b. Explain 4 classes of fire. (10 Marks)

OR

10 Explain types of fire protection. (20 Marks)

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