CBCS SCHEME

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

18ARC43

Fourth Semester B.Arch. Degree Examination, June/July 2023
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 water carriage and water conservancy system. Compare the two systems. **(08 Marks)**

b. Population of a town was obtained from the census data. Forecast the future population in the year 2020 by :

i) Arithmetical increase method
ii) Geometrical increase method
iii) Incremental increase method.

Year	Population
1970	8,000
1980	12,000
1990	17,000
2000	22,500

(12 Marks)

OR

2 a. Mention and describe various forms of sources for water supply schemes. **(05 Marks)**

b. Discuss various stages involved in water treatment process. Support the answer with neat sketches. **(15 Marks**

Module-2

3 a. Briefly compare separate and combined sewerage conveyance systems. **(10 Marks)**

b. Briefly explain the function of insertion chamber and manhole. **(10 Marks)**

OR

4 Explain the term storm water management. Discuss various storm water management method used for roof top collection ground water recharging reuse within the project site. **(20 Marks)**

Module-3

5 Write short notes on :

i) Two – pipe system
ii) One – pipe system
iii) P – trap
iv) Bottle trap. **(20 Marks)**

OR

6 a. Explain with sketch globe valve, floor trap. **(10 Marks)**

b. Explain single stack and single pipe partially stack system. Mention the suitability of each system. **(10 Marks)**

Module-4

7 Explain with a neat sketch water closets, flushing listern, bath tub and flush valve. **(20 Marks)**

OR

8 Explain the collection, segregation, treatment and disposal of garbage. Explain organic waste convertor and vemicomposting. **(20 Marks)**

Module-5

9 Write short notes on :
i) Smoke detectors
ii) Fine alarms
iii) Fine hydrants
iv) Wet riser system. **(20 Marks)**

OR

10 a. Explain with a neat sketch working of solar water heater. **(10 Marks)**
b. With a neat sketch briefly explain working of central vacuum waste collection system. **(10 Marks)**

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