CBCS SCHEME

USN | | | | | | | | | |

15ENG43

Fourth Semester B.Arch. Degree Examination, Aug./Sept.2020
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 the history of sanitation with respect to human civilization. **(10 Marks)**
  b. Explain conservancy system to water carriage system. **(10 Marks)**

OR

2 a. Explain with sketch gravity system and hydro-pneumatic system of storage and pumping. **(06 Marks)**
  b. Explain infiltration galleries and infiltration wells with neat sketches. **(06 Marks)**
  c. How the total quantity of water required by a town is estimated and what are the factors which directly affect the rate of demand of a town. Explain them briefly. **(08 Marks)**

Module-2

3 a. What is a trap? Explain the traps used for conveyance of sewage ie., Nahani trap, Gully trap and Intercepting trap with neat sketches. **(10 Marks)**
  b. Explain the objective of sewage treatment and the process of sewage treatment with neat sketches. **(10 Marks)**

OR

4 a. Explain storm water drainage system ie., Piped drains (Storm water inlets) and Open drains (Surface drains) with neat sketches. **(12 Marks)**
  b. Explain the advantages of rain water harvesting. **(08 Marks)**

Module-3

5 Explain the systems of plumbing with neat sketches :
  a. Two - pipe system   b. One - pipe system
  c. Partially ventilated single stack system   d. Single stack system **(20 Marks)**

OR

6 Explain with neat sketches the following flow control valves:
  a. Gate valve   b. Globe valves   c. Butterfly valve   b. Reflux valve. **(20 Marks)**

Module-4

7 Explain with the help of sketches following sanitary fittings:
  a. Flushing System   b. Wash Basin   c. Bath tub   d. Urinals **(20 Marks)**

OR

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

Module-5

9 Write short notes on :
  a. Smoke detectors   b. Fire Alarms   c. Wet risers   d. Fire hydrants **(20 Marks)**

OR

10 Explain solar hot water generation with neat sketch. **(20 Marks)**

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