

# CBCS SCHEME

USN

--	--	--	--	--	--	--	--	--	--

18CV742

## Seventh Semester B.E. Degree Examination, Dec.2023/Jan.2024 Design Concept of Building Services

Time: 3 hrs.

Max. Marks: 100

*Note: Answer any FIVE full questions, choosing ONE full question from each module.*

### Module-1

- 1 a. What are the different types of pipe fittings? Explain with neat sketches. (10 Marks)  
b. Explain in detail about Rain Water harvesting. Along with typical component of Rain Water harvesting. (10 Marks)

OR

- 2 a. Write detailed principles of drainage and surface drainage. (10 Marks)  
b. With neat sketches, explain the system of plumbing for house drainage. (10 Marks)

### Module-2

- 3 a. Explain the systems of ventilation. (10 Marks)  
b. Discuss thermal insulation of Roofs and Exposed walls. (10 Marks)

OR

- 4 a. Explain the requirements of Air condition system. (10 Marks)  
b. Explain the different types of Ducting systems used in building. (10 Marks)

### Module-3

- 5 a. Explain the different types of Earthing system. (10 Marks)  
b. Explain the various protective devices used in electrical installations. (10 Marks)

OR

- 6 a. Explain in brief about different methods of fire fighting and equipments used. (10 Marks)  
b. Describe the illumination and write illumination required for residential buildings. (10 Marks)

### Module-4

- 7 Draw fire fighting layout of building and give the schematic diagram of wet pipe sprinkler system. (20 Marks)

OR

- 8 Draw a drainage plan of a residential building with suitable notations. (20 Marks)

### Module-5

- 9 a. Explain in brief about the classification of lifts and its types. (10 Marks)  
b. Explain in brief about: i) Centrifugal pump ii) Submersible pump. (10 Marks)

OR

- 10 a. What is maintenance planning? And describe the importance of maintenance planning. (10 Marks)  
b. Write in brief about installation of Hot water boilers and with maintenance procedure. (10 Marks)

\* \* \* \* \*

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.