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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)