



CBCS SCHEME

15CV743

Seventh Semester B.E. Degree Examination, Dec.2019/Jan.2020 Design Concept of Building Services

Time: 3 hrs.

Max. Marks: 80

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

Module-1

- 1 a. Explain the principles that should be kept in mind while designing a house drainage system. (08 Marks)
b. With neat sketches, explain the system of plumbing for house drainage. (08 Marks)

OR

- 2 a. Explain the components of a service connection for water supply from the mains to a building with a neat sketch. (08 Marks)
b. With a flow chart, explain the functional elements of solid waste management. (08 Marks)

Module-2

- 3 a. Describe the need for thermal insulation in buildings and also discuss the general methods of thermal insulations in buildings. (08 Marks)
b. Explain the systems of ventilation. (08 Marks)

OR

- 4 a. Discuss the various types of thermal insulating materials and the factors that affect selection of insulating materials. (08 Marks)
b. Explain the essentials of air conditioning system. (08 Marks)

Module-3

- 5 a. Explain the various protective devices used in electrical installations. (08 Marks)
b. Describe the need for earthing and explain the types of earthing provided. (08 Marks)

OR

- 6 a. Explain the fire protection requirements for multistoreyed buildings. (08 Marks)
b. Describe the provision of fire detection and fire extinguishing system to be provided in multi storeyed buildings. (08 Marks)

Module-4

- 7 Draw the drainage plan of a residential building with suitable notations. List the various appurtenances used in the drainage system of building discuss their functions. (16 Marks)

OR

- 8 Draw the fire fighting layout of a building and the give the schematic diagram of a wet pipe sprinkler system. (16 Marks)

Module-5

- 9 a. Explain the types of pumps used in various building services. (08 Marks)
b. Describe the classification and types of lifts used in buildings. Also mention standard sizes and safety norms to be adopted. (08 Marks)

OR

- 10 a. Explain the various types of preventive and protective maintenance for buildings. (08 Marks)
b. Explain maintenance planning and discuss its importance. (08 Marks)

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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.