



CBCS SCHEME

15CT71

USN

| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|
| | | | | | | | | | |
|--|--|--|--|--|--|--|--|--|--|

Seventh Semester B.E. Degree Examination, Dec.2019/Jan.2020 Building Services – II

Time: 3 hrs.

Max. Marks: 80

Note: 1. Answer FIVE full questions, choosing one full question from each module.
2. Draw neat sketches wherever necessary.

Module-1

- 1 a. Define ventilation. Explain the necessity of ventilation for buildings. (06 Marks)
b. Explain the functional requirements of ventilation. (10 Marks)

OR

- 2 a. Explain ventilation due to wind effect and ventilation due to stack effect in detail. (10 Marks)
b. Explain the necessity of sound amplification in buildings. (06 Marks)

Module-2

- 3 a. Explain the types of heat transfer through buildings. (06 Marks)
b. Explain the properties thermal insulating materials used in buildings. (10 Marks)

OR

- 4 a. Explain the factors affecting thermal comfort in buildings. (12 Marks)
b. Define: (i) Thermal comfort (ii) Thermal conductivity (iii) Thermal conductance (iv) Thermal transmittance. (04 Marks)

Module-3

- 5 a. Define illumination. Explain the importance of lighting in a building. (06 Marks)
b. Explain the properties of various artificial lights/lamps used in building. (10 Marks)

OR

- 6 a. Explain the principles of illumination. (10 Marks)
b. Explain the laws of illumination. (06 Marks)

Module-4

- 7 a. Define Elevator. Explain the components of an typical elevator with neat sketch. (10 Marks)
b. Explain the factors to be considered for selection of an elevator. (06 Marks)

OR

- 8 a. Explain the design principles adopted for designing an elevator in detail. (12 Marks)
b. Explain the components of an Escalator in brief. (04 Marks)

Module-5

- 9 a. Write short notes on:
(i) Zero energy buildings. (ii) Green buildings (08 Marks)
b. Explain passive solar design techniques adopted in energy efficient buildings. (08 Marks)

OR

- 10 a. Explain about LEED certification for buildings for energy efficiency. (08 Marks)
b. Explain the necessity of energy conservation and efficiency in buildings. (08 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.