

CBCS SCHEME



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15ARC5.3

Fifth Semester B.Arch. Degree Examination, June/July 2019 Building Services – II

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. Define Electricity. (02 Marks)
b. What are the renewable and non-renewable sources for electricity generation? Explain any one method of each in short for obtaining electricity. (18 Marks)

OR

- 2 a. What is a Transformer? (02 Marks)
b. Explain the classification of transformer based on type of core and type of coding with neat sketches. (18 Marks)

Module-2

- 3 a. Discuss different methods of installing wiring system in a building with sketches. (15 Marks)
b. List the general ISI rules, related to the wiring in a building. (05 Marks)

OR

- 4 Explain various energy conservation techniques in electrical systems using renewable natural resources. (20 Marks)

Module-3

- 5 a. Explain the need of protective devices in building electrical system and their selection criteria. (10 Marks)
b. Write a short notes on (with the help of sketches) :
(i) MCB (ii) ELCB (10 Marks)

OR

- 6 a. What is Earthing? Explain its importance in electrical system in a building. (10 Marks)
b. Explain the plate earthing method with the help of a neat sketch. (10 Marks)

Module-4

- 7 a. Explain in brief about principles and applications in lighting methods of :
(i) Ambient Lighting (ii) Task Lighting (10 Marks)
b. Write short notes on (with sketches) :
(i) Fluorescent lamps (ii) Incandescent lamps. (10 Marks)

OR

- 8 a. Explain design considerations for interior lighting. (10 Marks)
b. Explain factors to be considered for good lighting quality. (10 Marks)

Module-5

- 9 a. What is Extra low voltage system? (05 Marks)
b. Explain three low voltage systems. (15 Marks)

OR

- 10 a. Draw single line sketch of a two bedroom residential building and prepare an electrical layout for the same using standard symbols (like light points, fan, meter board, power points etc.) (15 Marks)
b. Calculate the electrical load of the above layout (05 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.