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09ARC4.3

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

Time: 3 hrs.

Max. Marks:100

Note: *1. Answer any FIVE full questions, selecting atleast*
TWO questions from each part.
2. Draw sketches wherever necessary.
3. Assume suitable data wherever necessary.

PART – A

1 a. Explain the process how electricity is supplied to your house from power generating station with diagram. **(10 Marks)**
   b. Explain any five systems of electrical wiring. **(10 Marks)**

2 a. Explain and compare any one type of protective devices in detail. **(10 Marks)**
   b. Discuss Indian electricity rules for domestic wiring. **(10 Marks)**

3 a. What is substation? Discuss the classifications of substations. **(10 Marks)**
   b. What is earthing? Explain any one method of earthing with neat labled sketch. **(10 Marks)**

4 Write short notes on any four of the following:
   a. Transformer
   b. AC and DC
   c. Insulators
   d. Switch board
   e. Transmission and distribution lines. **(20 Marks)**

PART – B

5 Draw a single line sketch of a 2 Bedroom residential building of size 13m × 18m. Show the electrical layout using standard electrical symbols. Calculate the electrical load and the number of sub-circuits required for lighting the building. **(20 Marks)**

6 a. Explain with neat sketches, the constructional features of HID and incandescent lamp. **(10 Marks)**
   b. Explain the characteristics of advantages of good lighting. **(10 Marks)**

7 a. Explain illumination and laws of illuminations. **(10 Marks)**
   b. Explain with neat sketch, the lighting and constructional features of high pressure sodium lamps. **(10 Marks)**

8 Explain in brief the methods of artificial illumination for the following spaces:
   a. Dental clinic
   b. Art gallery
   c. Entrance lobby of a star hotel
   d. Permit room. **(20 Marks)**

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