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## Fourth Semester B.Arch. Degree Examination, December 2010 **Building Services** – II

Time: 3 hrs.

Max. Marks:100

ARC4.6

Note: Answer any FIVE full questions, selecting at least TWO questions from each part.

## PART - A

1 a. Why are the protective devices necessary for electrical wiring? Describe any one of them, in detail.

b. With a neat block diagram, explain in detail, the distribution of electricity from the generating station to the individual consumer. (10 Marks)

2 a. Explain the electrical wiring systems.

(10 Marks)

b. Explain the wiring of a building, with a single phase A.C. supply.

(10 Marks)

3 Draw a single line diagram of a two bedroom residential building and prepare the electrical layout for the same, using standard electrical symbols. Also, calculate the electrical load for the same.

(20 Marks)

4 a. List the general ISI rules, related to the wiring.

(14 Marks)

b. Write short notes on any two:

i) Substation

ii) Cables

iii) Transformer

iv) A.C. and D.C.

(06 Marks)

## PART – B

a. Explain the illumination and laws of illumination.

(10 Marks)

b. What are the different types of lamps, used for lighting? Explain the factors that are considered in the design of a lighting scheme. (10 Marks)

6 a. Explain in brief, with neat sketches, the different types of lighting schemes.

(10 Marks)

b. With neat sketches, explain the construction and working of

i) Incandescent lamps

ii) Fluorescent lamps.

(10 Marks)

7 Write short notes on:

- a. Accent lighting
- b. Halogen lamps
- c. Floodlighting

d. Glare

(20 Marks)

- 8 Mention the methods of lighting for
  - a. Food court
  - b. Children's park
  - c. Auditorium
  - d. Architects' cabin

(20 Marks)

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