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Fourth Semester B.Arch. Degree Examination, June/July 2011
Building Services – II (Electrical services & Illumination)

Time: 3 hrs.

Max. Marks:100

- Note: 1. Answer any THREE full questions from Part-A and any TWO full questions from Part-B.**
2. Support your answer with sketches wherever necessary.

PART – A

- 1 a. What are the conventional and non-conventional sources of energy? Explain any two methods in short for obtaining electricity. (10 Marks)
- b. Explain in short the applications and limitations of alternate current (a.c.) and direct current (d.c.). (10 Marks)
- 2 a. Explain in detail the distribution of electricity from generation station to consumer unit with a neat block diagram. (15 Marks)
- b. Discuss different types of service connection to a domestic building. (05 Marks)
- 3 a. Explain in detail various systems of electrical wiring. (10 Marks)
- b. Write short notes on any two: (10 Marks)
 - i) Substation
 - ii) Transformer
 - iii) Panel board
 - iv) Earthing.
- 4 a. Why are protective devices necessary for electrical wiring? Describe any two of them in detail. (15 Marks)
- b. Discuss different techniques of electrical energy conservation in buildings. (05 Marks)
- 5 Draw a plan of a residence of 100 m². Mark out the points and determine the number of subcircuits and total electric loads. (20 Marks)

PART – B

- 6 a. What is good lighting? What are the factors contributing to good lighting? (10 Marks)
- b. Discuss different methods of lighting with neat sketches. (10 Marks)
- 7 a. Write short notes on any two: (10 Marks)
 - i) Fluorescent lamp
 - ii) Flood lighting
 - iii) Lumen
 - iv) Neon lamps.
- b. Explain different systems of luminaries with sketches. (10 Marks)
- 8 Explain in detail with relevant sketches about the lighting for (20 Marks)
 - i) Library
 - ii) Hotels.

Important Note : 1. On completing your answers, carefully draw diagonal cross lines on the remaining blank pages. 2. Any revealing of identification, etc. to evaluator and/or equations written eg, 42+8 = 50, etc. is treated as malpractice.