

Fourth Semester B.Arch. Degree Examination, June/July 2011
Building Services – II

Time: 3 hrs.

Max. Marks:100

Note: 1. Answer any THREE questions from Part A and TWO questions from Part B.
2. Assume any missing data suitably.

PART A

- 1 a. What is a transformer? Explain the classification of transformer based on type of core and type of cooling. (10 Marks)
- b. Explain the different types of service connections to individual premises. Compare the advantages and disadvantages of both. (10 Marks)
- 2 a. What are protective devices? Why are they necessary for electrical wiring? (06 Marks)
- b. What is earthing? Why is it necessary? Explain pipe earthing with the help of neat sketch. (14 Marks)
- 3 a. Explain the different systems of electric wiring. (10 Marks)
- b. What is an insulator? Explain with neat sketches the different types of insulators. (10 Marks)
- 4 Write short notes on :
 - a. ELCB
 - b. Substation
 - c. Panel board
 - d. Conductors (20 Marks)
- 5 Draw a single line drawing of a two bedroom residential bungalow in a plot of size 15.24m×24.40m. Show the electrical layout using standard symbols. Calculate the electrical load and the number of subcircuits required for the lighting of the bungalow. (20 Marks)

PART B

- 6 a. Explain laws of illumination. (08 Marks)
- b. Explain the design consideration and method of lighting the following areas
 - i) Small garden
 - ii) Art gallery
 - iii) Living room. (12 Marks)
- 7 a. Explain with help of neat sketches the system of luminaries. (15 Marks)
- b. Explain coefficient of utilization. (05 Marks)
- 8 Write short notes on any four :
 - a. Color rendition
 - b. Neon lights
 - c. Ambient lighting
 - d. Glare
 - e. Factors affecting quality of lighting. (20 Marks)

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