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**Fourth Semester B. Arch. Degree Examination, June/July 2016**  
**Building Services – II**

Time: 3 hrs.

Max. Marks:100

**Note: Answer any THREE full questions  
from Part A, and TWO from each Part B.**

**PART – A**

- 1 a. Define electricity and discuss various consideration involved in planning of electrical services in building. (10 Marks)  
b. Explain the process how electricity is supplied to users through transmission and distribution network. Give the block diagram of hydroelectric power station. (10 Marks)
- 2 a. Explain over head service connections and list its merits and demerits. (10 Marks)  
b. Explain the general structure of the cables with neat sketch. (10 Marks)
- 3 a. What is earthing? Explain the need for earthing at the consumer's end. (10 Marks)  
b. Explain the pipe earthing method with help of a neat sketch. (10 Marks)
- 4 a. Write short notes on : (any Two)  
i) Substation  
ii) Transformer  
iii) E. L. C. B  
iv) Insulator  
v) Conductors. (10 Marks)  
b. Discuss in detail, the Indian electricity rules. (10 Marks)
- 5 a. What is a fuse? Explain with sketches any two types of fuse. (14 Marks)  
b. What are the advantages of H.R.C fuse over rewirable fuse? (06 Marks)

**PART – B**

- 6 a. Describe with neat sketches, the different methods of lighting. (10 Marks)  
b. Discuss the points that needs to be considered for planning a lighting installation in a building. (05 Marks)  
c. Discuss the design consideration of a good lighting scheme in a building. (05 Marks)
- 7 Write short notes on :  
a. Neon tube  
b. H. I. D Lamps  
c. Flood lighting  
d. Direct lighting. (20 Marks)
- 8 a. With help of neat sketch indicate different symbols used for different electrical fixtures in a building. (10 Marks)  
b. Draw single line sketches of a two bed –room residential building and prepare the electrical layout for the same using standard electrical symbols. (10 Marks)