USN | | | | | | | | | | |

09ARC4.3

Fourth Semester B.Arch. Degree Examination, Dec.2017/Jan.2018
Building Services – II

Time: 3 hrs. Max. Marks:100

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

PART- A

1 a. Define electricity. What are the conventional and non-conventional sources of electricity? **(08 Marks)**

b. What is a transformer? Explain the classification of transformer based on type of core and type of cooling. **(12 Marks)**

2 a. Explain the various types of wiring system. **(10 Marks)**

b. With a neat sketch, explain the pipe earthing method. **(10 Marks)**

3 a. What are the advantages and disadvantages of overhead systems over underground systems? **(10 Marks)**

b. What do you understand by substation? What are the important functions which can be performed at the substation? **(10 Marks)**

4 a. Explain with neat sketch the different parts of a cable. **(10 Marks)**

b. What are the advantages of transmission at high voltage or extra high voltage? **(04 Marks)**

c. Explain with neat diagram the elements of distribution system. **(06 Marks)**

5 a. What are the differences between ELCB and MCB? **(10 Marks)**

b. Explain with a neat sketch the layout and working of a hydroelectric power station. **(10 Marks)**

PART – B

6 Write short notes on :

a. Neon Lamp

b. Flood Lighting

c. Fluorescent Lamp

d. HID Lamp. **(20 Marks)**

7 a. Explain different types of luminaries with sketches. **(10 Marks)**

b. Explain the qualitative aspects of lighting design. **(10 Marks)**

8 a. What are the factors contributing to good lighting scheme? **(10 Marks)**

b. Write short notes on :

i) Luminous flux

ii) Luminous intensity

iii) Law of illumination

iv) Lambert's Cosine law. **(10 Marks)**

* * * * *