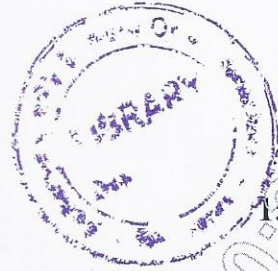


CBGS Scheme



USN

--	--	--	--	--	--	--	--	--	--

15ARC5.3

Fifth Semester B. Arch Degree Examination, Dec.2017/Jan.2018

Building Services – II

Time: 3 hrs.

Max. Marks: 100

Note: Answer FIVE full questions, choosing one full question from each module.

Module-1

- 1 a. What is electricity? Explain with sketch any one method of generating electricity. (05 Marks)
b. Explain Sub-station its function and types. (15 Marks)

OR

- 2 Write short notes on any 5 (five) of the following :
- Transformer
 - Generator
 - Primary and secondary distribution line
 - HT and LT cables
 - Metering Panel and HT panel
 - A.C and DC
 - National Electric code and I.S Rules. (20 Marks)

Module-2

- 3 a. Explain the electrical wiring system and electrical wiring installation system with sketches. (12 Marks)
b. List the general ISI Rules related to wiring. (08 Marks)

OR

- 4 a. What do you mean by Net zero energy building? Explain with a sectional sketch the features of a NZEB Home. (10 Marks)
b. What are the various on site and off site renewable energy systems? Explain with sketches. (10 Marks)

Module-3

- 5 a. What are protective devices? Why are they necessary for electrical wiring? Explain MCB and ELCB with sketches. (10 Marks)
b. Define a Fuse. Explain with sketches any two types of fuses in detail its advantages. (10 Marks)

OR

- 6 a. What is Earthing? Why is it necessary? Explain with sketch any one type of earthing. (10 Marks)
b. Explain with sketch the method of lightning protection system in a building. Explain the importance of the same. (10 Marks)

Module-4

- 7 a. What is Lighting? Why are the factors contributing to good lighting? (08 Marks)
b. Discuss in detail different lighting systems with neat sketches. And their applications. (06 Marks)

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



15ARC5.3

c. Explain with system of luminaries.

(06 Marks)

OR

8 Write short notes on any 5 (Five) :

- a. Laws of illumination
- b. Glare
- c. Types of Lamps
- d. Sodium vapour Lamp and Mercury vapour lamp
- e. Fluorescent Lamp and CFL
- f. Lighting Schemes
- g. Façade Light and Landscape Lighting.

(20 Marks)

Module-5

- 9 a. With is Extra Low – Voltage system. Explain its necessity in a building?
b. Explain any 3 – types of Low voltage systems used in buildings in detail.

(08 Marks)

(12 Marks)

OR

- 10 a. For a 3-BHK individual residence prepare an electrical layout showing the following :
– Light points
– Fans
– Power Points
– Low voltages points
– Distribution Board and meter board.

(14 Marks)

- b. Calculate the electrical load for the same.

(06 Marks)

* * * * *