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Fourth Semester B.Arch. Degree Examination, Dec.2024/Jan.2025

Building Services - II

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 a. What are the conventional and Non-conventional sources of energy ; explain its impacts and implications. (10 Marks)
- b. Explain with neat sketch any one method of generation of electricity. (10 Marks)

OR

- 2 a. Draw a single line diagram/general arrangement drawing of a sub-station and explain its parts and working. (10 Marks)
- b. With a neat block diagram, explain in detail the distribution of electricity from the generation station to the end user. (10 Marks)

Module-2

- 3 a. Sketch and explain LT and HT cables, explain with a labelled sketch all parts of a armoured cable. (10 Marks)
- b. What are the various types of wiring installation systems? (10 Marks)

OR

- 4 Write short notes on :
 - i) Rising main and Sub mains
 - ii) N ZEB
 - iii) Thermal Load Reduction
 - iv) Energy Conservation Techniques (20 Marks)

Module-3

- 5 What is Earthing? Why is it Done ; explain with sketches any two types of Earthing. (20 Marks)

OR

- 6 Write short notes on :
 - i) MCCB and ELCB
 - ii) Air Circuit Breakers
 - iii) Fuses
 - iv) Lighting Protection System. (20 Marks)

Module-4

- 7 a. What is Lighting? What are the factors contributing to Good Lighting? (10 Marks)
- b. Explain in detail different Lighting Methods/Systems of Luminaries with neat sketches and their application. (10 Marks)

OR

8 Write short notes on :

- a) Laws of Illumination
- b) Glare
- c) Façade and Landscape Light
- d) Sodium vapour and Mercury vapour Lamps

(20 Marks)

Module-5

9 What is ELVS? Explain its necessity explain in detail any 3 types of ELVS used in a building. (20 Marks)

OR

10 For a 2BHK Residence ; prepare an electrical layout and calculate electrical load showing the following :

- i) Light points
- ii) Fans
- iii) Power points
- iv) Low voltages points
- v) DB
- vi) Meter Board

(20 Marks)
