CBCS SCHEME

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

21ARC44

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)**

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