



USN

Fifth Semester B.Arch. Degree Examination, June/July 2024 **Building Services – II**

Time: 3 hrs. Max. Marks: 100

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

Module-1

- Define and distinguish any 2 of the following:
 - (i) AC and DC Electricity.
 - (ii) HT and LT Cables.
 - (iii) Current
 - (iv) Voltage

(20 Marks)

OR

With a diagram, explain the transmission of electricity from the generating station to homes.

Name the parts and voltage levels. (20 Marks)

Module-2

With diagram, explain 2 types of wiring instillation systems in a building-Balten wiring and conduit wiring. (20 Marks)

OR

- 4 a. What is renewable energy system? Give examples. (05 Marks)
 - b. What is 'Net Zero' energy building? What are its characteristics? How is it achieved?

(15 Marks)

Module-3

5 a. What are protection devices? Give examples.

(05 Marks)

b. Write short notes on Fuse, MCB and ELCB.

(15 Marks)

OR

6 a. What is earthing system?

(05 Marks)

b. With a diagram, explain the parts and working of a pipe earthing instillation.

(15 Marks)

Module-4

With diagram, explain how incandescent lamp and Flourescent Lamp works. (20 Marks)

OR

8 a. What are the 3 types of lighting methods?

(06 Marks)

b. Describe the scheme of illumination for the reception and waiting lobby of a Hotel. Mention the type of luminaries and light fixtures used. Use sketch if necessary. (14 Marks)

Module-5

9 a. What is extra low voltage electric system?

(04 Marks)

b. What are its characteristics?

(10 Marks)

c. Mention 3 applications that work on this system.

(06 Marks)

OR

Draw a 1 bedroom house with electrical layout using standard electrical symbols. Calculate the connected load in the building. (20 Marks)