



V Semester B.V.A. (Theory) Degree Examination, March/April - 2023 INTERIOR AND SPATIAL DESIGN

Environmental Control (CBCS Semester Scheme)

Paper: Theory

Time: 3 Hours Maximum Marks: 70

Instructions to Candidates:

All Sections are compulsory.

SECTION-A

Answer any FIVE of the following.

 $(5 \times 5 = 25)$

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- 1. What is reverberation of sound?
- 2. Define inverse square law, what is Sabine's theory and formula.
- 3. What is an echo? What is a sound shadow?
- 4. Explain sound pressure? Intensity and Loudness.
- 5. Explain the temperature of lights and colours. What are different units for measuring light intensity?
- **6.** Explain in detail the artificial lighting and its design applications.

SECTION-B

Answer any THREE of the following.

 $(3 \times 10 = 30)$

- 1. Explain in detail with the help of sketches effects of good lighting. How to control Brightness, glare, contrast and diffusion of a space for natural lighting?
- 2. How to do sound masking in buildings mention some design measures to follow.
- 3. Explain in brief the phenomenon of human ear and hearing with illustrations/diagrams.
- 4. What are the different types of artificial lighting? How does the selection of lighting fixtures takes place with respect to the usability of space?

P.T.O.







SECTION-C

Answer any ONE of the following.

 $(1 \times 15 = 15)$

- 1. Explain in detail the lighting design and Principles undertaken for your design studio project with diagrams, sketches and graphs.
- 2. Explain in detail the acoustical requirements for auditorium design.
- 3. Explain architectural acoustics in detail and various measures used by designers for noise reduction.