

AV – 2954

Sixth Semester B. Arch. (CGS) Examination

ACOUSTICS AND ILLUMINATION

Paper – 6 AR 06

(USC – 10051)

P. Pages : 2

Time : Three Hours]

[Max. Marks : 80

- Note :** (1) All questions carry equal marks.
(2) Question No. **Five** and **Ten** is compulsory.
(3) Use of slide rule, logarithmic tables, Steam tables, Mollier's Chart, Drawing instrument, Thermodynamic table for moist air, Psychrometric Charts and Refrigeration charts is permitted.
(4) I.S.I. Hand book for structural Steel section, I.S. Code 800/1962 or 1964, I.S. 456 (Revised) I.S. 875 may be consulted.
(5) Use of D.A. Lows "Pocket Book For Mechanical Engineers" is permitted.
(6) Discuss the reaction, mechanism wherever necessary.
(7) Use pen of Blue/Black ink/refill only for writing the answer book.

1. (a) Describe the importance of acoustics in Architecture.
(b) Define Noise and Mention it's effects on human health. 12

OR

2. (a) Explain 'Reverberation time'. How will you calculate Reverberation time by Sabine's equation ?
(b) Describe with neat sketches Acoustical Blanket and Acoustical plaster. 12
3. What type of constructional and planning measures to be taken for good acoustical design of auditorium ? 12

OR

4. What are the various types of Acoustical defects ? Suggest the remedies on it. 12

P.T.O.

AV-2954

5. Explain with neat sketches any **Four** of the following :—
- (a) Selection of Acoustical Material for Meeting Room.
 - (b) Various types of Suspended Ceiling Absorbers.
 - (c) Sound Shadows.
 - (d) Reflectors.
 - (e) Acoustical filters.
 - (f) Central and distributed loud speaker systems. 16

6. (a) What are the natural and artificial sources of light ?
- (b) Write the different advantages and disadvantages of Tungsten lamp. 12

OR

7. (a) Explain cold cathode lamps and light emitting diodes.
- (b) Explain incandescent lamps. Fluorescent lamps and Mercury lamps. 12
8. (a) Elaborate with sketches the principles of light reflection ?
- (b) Define Flux and Lumen. 12

OR

9. Suggest types of lighting design and method. Use for Auditorium. 12

10. Explain any **Three** of the following :—

- (a) Under – water light fixture.
- (b) Concealed or recessed lighting.
- (c) Flood lighting for Exhibitions.
- (d) Discomfort Glare.

16

AV-2954