

BACHELOR OF ARCHITECTURE (B.Arch.)

Term-End Examination

December, 2016

**BAR-039 : ARCHITECTURAL SCIENCES AND
SERVICES – II
(ILLUMINATION AND ACOUSTICS)**

Time : 3 hours

Maximum Marks : 70

Note : Question no. 1 is compulsory. Attempt any five questions from the rest.

1. Write short notes on the following : 5×2=10
- (a) Visual Field
 - (b) Daylighting Factor
 - (c) Sound Insulation
 - (d) Sound Pressure Level
 - (e) Sky Component

2. Explain the principles of good lighting in a room.
What is meant by Reflected Daylight
Component ? 12

3. What is glare index ? Discuss 'Space Function method' of calculation for interior lighting power allowance in a building. 12
 4. What is meant by clear design sky ? Discuss Lumen method of artificial lighting design. 12
 5. Describe acoustical defects resulting from improper room shape. Elaborate the factors for consideration for room acoustics. 12
 6. How can one control 'structure-borne' noise ? Describe the difference between sound absorption and sound insulation. 12
 7. What is meant by reverberation time ? How can one calculate the reverberation time ? 12
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