

BACHELOR OF ARCHITECTURE (BARCH)

Term-End Examination

June, 2012

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

Time : 3 hours

Maximum Marks : 70

Note : All questions carry equal marks. Attempt any seven questions.

1. What do you understand by daylighting ? Also 10
explain daylight factor . How do you determine
various components of daylight factor ?
2. Explain the various lighting system employed in 10
interior lighting.
3. What are the methods of lighting calculations ? 10
Explain them.
4. Define the following : 10
(a) Illumination laws
(b) Artificial lighting for a theatre and a
stadium.

5. What do you understand by the term Acoustics ? Explain room acoustics, in specific reference to lecture halls. 10

6. Explain Reverberation time and optimum time of reverberation with formula. What is its relevance in auditoriums and blind school buildings ? 10

7. Describe various measures for good acoustics in a multi - purpose hall. What kind of sound absorption treatment would you provide for side and back (facing stage) wall ? 10

8. What are the differences between sound and noise ? Explain various noise criteria of building materials . Where would you apply them in various buildings ? 10

9. What are various noise control measures for buildings for external and structure borne noise ? 10
