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BAR-039

BACHELOR OF ARCHITECTURE (B.Arch.)

Term-End Examination

December, 2015

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

Time : 3 hours

Maximum Marks : 70

*Note : Part A is compulsory. Attempt any five questions
from Part B.*

PART A (Compulsory)

1. Write short notes on any **four** of the following : $4 \times 5 = 20$
- (a) Preferred noise criteria
 - (b) Transmission loss of a partition
 - (c) Highway noise
 - (d) Visual field
 - (e) Lumen method for lighting calculation
 - (f) Daylight protractors

PART B

Attempt any five questions.

2. Explain briefly various characteristics of sound as applicable to the acoustic design of a room. 10
 3. What do you mean by reverberation ? How is the reverberation time calculated ? 10
 4. Define diffusion, blend and ensemble in connection with sound transmission. 10
 5. What are the lighting design criteria for daylighting and artificial lighting ? 10
 6. How do you ensure privacy (in sound levels) in (a) multifamily dwellings, (b) offices, and (c) open plan classrooms ? 10
 7. Explain the criteria for design of partitions with respect to noise control. 10
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