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**Sixth Semester B.Arch. Degree Examination, June/July 2015**  
**Building Services - IV**

Time: 3 hrs.

Max. Marks: 100

**Note: Answer any FIVE full questions, selecting  
THREE from Part – A and TWO from Part - B.**

**PART – A**

- 1 Write short notes on :
  - a. Frequency of sound
  - b. Sound intensity
  - c. Decibel scale
  - d. Inverse square law. (20 Marks)
- 2
  - a. With a neat sketch explain how sound behaves in enclosed space. (10 Marks)
  - b. Explain the various space acoustic defects. (10 Marks)
- 3 What is reverberation? Explain its relevance in acoustics? (10 Marks)  
 Explain Sabine's equation. (10 Marks)
- 4 Write short notes on :
  - a. Sound absorption coefficient
  - b. Helmholtz resonator
  - c. Vibration isolation
  - d. Space absorbers. (20 Marks)
- 5 As the architect of a proposed auditorium, what would be your recommendations with respect to :
  - a. Room geometry
  - b. Visibility
  - c. Audibility
  - d. Acoustic treatment. (20 Marks)

**PART – B**

- 6 Discuss noise control measures applicable in outdoor urban noise control. (20 Marks)
- 7 Write short notes on :
  - a. sound masking
  - b. Transmission loss
  - c. Noise reduction co-efficient (NRC)
  - d. Floating floor construction. (20 Marks)
- 8 Explain the following :
  - a. Noise control in office buildings. (10 Marks)
  - b. Control of noise generated by HVAC system. (10 Marks)

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