



CBCS SCHEME

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21ARC65

Sixth Semester B.Arch. Degree Examination, Dec.2025/Jan.2026 Building Services – IV (Accoustics & Noise Control)

Time: 3 hrs.

Max. Marks: 100

Note: Answer any FIVE full questions, choosing ONE full question from each module.

Module-1

- 1 a. Explain the threshold of audibility and pain. (05 Marks)
- b. Explain the inverse square law of sound with suitable sketches and explanation. Give a numerical example of inverse square law. (15 Marks)

OR

- 2 Describe room acoustics with reflection, absorption, echo, reverberation with sketches. (20 Marks)

Module-2

- 3 Define the following :
 - a. Speech Intelligibility
 - b. Speech Privacy and Attenuation
 - c. Acoustics Plaster
 - d. Gypsum Boards
 - e. False Ceilings as Sound Absorber(20 Marks)

OR

- 4 Describe various acoustical tools and measurements with appropriate sketches. (20 Marks)

Module-3

- 5 Explain transmission of noise in a multi-storied school building through sketches. (20 Marks)

OR

- 6 Trace the origin and history of Greek and Roman theatres in terms of acoustics advancements (20 Marks)

Module-4

- 7 a. Explain air borne and structural borne noise with examples. (10 Marks)
- b. How do you reduce structural and mechanical noise in buildings? Support with sketches. (10 Marks)

OR

- 8 a. Explain difference between sound and noise with examples. (05 Marks)
- b. What are the various classification of Noise? Explain each of them with sketches if required. (15 Marks)

Module-5

- 9 What are the various sources of industrial noise pollution? Explain any 5 causes. (20 Marks)

OR

- 10 a. Discuss the ill-effects of noise pollution on human beings. (05 Marks)
- b. Explain the strategies for dealing with noise at site and city planning level. (15 Marks)

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Important Note : 1. On completing your answers, compulsorily draw diagonal cross lines on the remaining blank pages.
2. Any revealing of identification, appeal to evaluator and /or equations written eg, 42+8 = 50, will be treated as malpractice.