

CBCS SCHEME

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15ARC7.3

Seventh Semester B. Arch Degree Examination, June/July 2019 Building Service – IV

Time: 3 hrs.

Max. Marks: 100

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

Module-1

- 1 Explain any 4 characteristics of sound in detail. (20 Marks)
- OR**
- 2 a. Explain how to calculate Reverberation time with example. (10 Marks)
b. Effect of RT on Speech and music. (10 Marks)

Module-2

- 3 Elaborate on the 5 types of sound absorbing materials with sketches. Give an example and an application for each of those. (20 Marks)
- OR**
- 4 Elaborate on the tools for measuring the Acoustic intelligibility of a space. Illustrate with diagrams and graphs wherever necessary. (20 Marks)

Module-3

- 5 As a hired Architect, what would be your recommendations to design an open air theater for the project? Answer with the help of illustration and notes the following :
- a. Space Geometry and visibility (07 Marks)
b. Measures to be taken to maintain speech privacy and Audibility (07 Marks)
c. Sound Reinforcement and sound masking suggestions. (06 Marks)
- OR**
- 6 As a part of the competition team, propose a multifunctional auditorium for 500 delegates for your college campus. Provide the following through sketches and notes :
- a. Sound absorbtive and Reflective Treatment (07 Marks)
b. How to avoid echos and sound resonance (07 Marks)
c. Stage, ceiling a seat details. (06 Marks)

Module-4

- 7 a. Explain Air borne Noise and structure Borne noise with examples (10 Marks)
b. Explain machine isolation and staggered wall stud construction with neat sketches. (10 Marks)
- OR**
- 8 Write short notes on the following :
- a. Transmission Loss (05 Marks)
b. Floating Floor Construction (05 Marks)
c. Noise Reduction co-efficient (NRC) (05 Marks)
d. Acoustical Filter. (05 Marks)

Module-5

- 9 Discus Noise control Measures applied in different contexts with examples and sketches. (20 Marks)
- OR**
- 10 a. Explain how industrial Noise can be controlled. (10 Marks)
b. Identify sources of sound in a railway station building and suggest suitable measures for the same. (10 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.