	2 Any revealing of identification, appeal to evaluator and /or equations written eg. $42+8=50$ , will be treated as malpractice.
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## Sixth Semester B. Arch Degree Examination, Dec.2017/Jan.2018 Building Services IV – Acoustics

Time: 3 hrs.

Max. Marks:100

Note: 1. Answer any FIVE full questions.

2. Draw neat sketches wherever necessary.

- What is meant by acoustics? Explain how study of acoustics is important for an architect.

  (20 Marks)
- Write short notes on the following:
  - a. Reflection from flat surface
  - b. Reflection from concave surface
  - c. Reflection from convex surface
  - d. Sound masking.

(20 Marks)

- What is sound absorption and sound absorption co-efficient? List the classification of absorbers and explain in detail with sketches (20 Marks)
- 4 a. Define reverberation and reverberation time. How does the Sabine's equation help the acousticians? (08 Marks)
  - b. Discuss the measures to be taken to control the RT in a lecture hall.

(12 Marks)

- 5 a. List the causes of indoor noise. How can architectural planning help in minimizing the same? Explain. (10 Marks)
  - b. Briefly describe transmission of noise and transmission loss.

(10 Marks)

- 6 a. What are the various urban noises? What measures can be taken through urban planning and urban design principles to control the same? (15 Marks)
  - b. Discuss in detail, the accepted noise levels.

(05 Marks)

- What causes noise in industrial building? Provide detailed explanation with sketches as applicable. (20 Marks)
- 8 a. How would you control noise in following places:

i) airport ii) recording studio.

(10 Marks)

b. Why road traffic is considered a menace for environment? Explain in detail.

(10 Marks)

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