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09ARC6.3

**Sixth Semester B.Arch. Degree Examination, Nov./Dec. 2016**  
**Building Services - IV**

Time: 3 hrs.

Max. Marks:100

**Note: Answer FIVE full questions.**

- 1 List the Acoustical defects of Auditorium. Explain any four with sketches and remedial measures. (20 Marks)
- 2 a. Explain the following technical terms and how they contribute for the Reverberation time with examples.
  - i) Reflection (10 Marks)
  - ii) Absorption. (10 Marks)b. List the factors influencing the absorption of energy explain (20 Marks)
- 3 Explain any five building materials with acoustical properties. (20 Marks)
- 4 a. Explain Sabine's formula. (10 Marks)  
b. Explain Eysing's formula. (10 Marks)
- 5 Write a shot note on :
  - a. Sound insulation
  - b. Sound masking
  - c. Threshold of pain audibility
  - d. Inverse square law. (20 Marks)
- 6 a. What is noise? Explain. (05 Marks)  
b. Explain types of sources of noise. (05 Marks)  
c. Write about acceptable noise levels. (10 Marks)
- 7 Explain Airborne noise and structure borne noise and controlling method. (20 Marks)
- 8 Write about industrial noise and controlling methods with sketches. (20 Marks)

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Important Note: 1. The computer cover answers compulsorily draw diagonal cross lines on the remaining blank pages. 2. Any revealing of identification, appeal to evaluator and/or equivoque answer of 17.8.50 will be treated as malpractice.