CBCS SCHEME

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15ARC73

Seventh Semester B.Arch. Degree Examination, Dec.2019/Jan.2020
Building Services - IV

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 sound and distance inverse square law with a diagram along with a numerical example. **(15 Marks)**

b. Define threshold of audibility and pain. **(05 Marks)**

OR

2 a. Explain the behavior of sound in an enclosed space with neat sketches. **(12 Marks)**

b. How do to the shape and volume of the room affect acoustical performance. **(08 Marks)**

Module-2

3 Explain the following sound absorbent in acoustics with sketches (if necessary)

a. Acoustical plaster and sprayed on materials. **(10 Marks)**

b. Carpets and fabrics.
Briefly describe the advantages, disadvantages and fixed/installation methods for same. **(10 Marks)**

OR

4 Explain the following sound absorbents in acoustics with sketches (if necessary)

a. Prefabricated acoustical units.

b. Acoustical Blankets or isolation blankets.
Briefly describe the advantages, disadvantages and fixed/installation methods for the same. **(20 Marks)**

Module-3

5 Elaborate on the architectural design consideration involved in acoustical design. **(20 Marks)**

OR

6 Explain in detail the acoustical design requirements for,

a. A Motion Picture Theatre **(10 Marks)**

b. Open Air Theatre. **(10 Marks)**

Module-4

7 Explain in detail the factors responsible for "environmental noise" in urban areas with examples and suggest the remedial measures to overcome such noises for a peaceful living. **(20 Marks)**

OR

8 a. Explain "Air Borne Noise" and "Structure Borne Noise" with examples. **(10 Marks)**

b. Describe single leaf partition and multiple leaf partition with neat sketches. **(10 Marks)**

Module-5

9 a. What are the various sources of industrial Noise pollution? Briefly explain any five causes. **(12 Marks)**

b. Mention the various methods to be employed to reduce the same. **(08 Marks)**

OR

10 Write short notes on the measures to be taken to reduce the noise pollution along with the acceptable noise levels for the below listed.

a. Air Traffic **(07 Marks)**

b. Railways **(06 Marks)**

c. Roadways. **(07 Marks)**

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