

M. Arch. Sem-III (Sustainable Architecture) (2014 Course) (CBCS) :
SUMMER - 2019
SUBJECT : ENERGY CONSERVATION – III ACOUSTICS AND AQUEOUS

Day: Tuesday
Date: 07/05/2019

Time: 02.00 PM To 04.00 PM
Max. Marks: 60

S-2019-3743

N.B.

- 1) Solve any **THREE** questions from each section.
- 2) Answer to two sections should be written in **SEPARATE** answer books.
- 3) All questions carry **10** marks.

SECTION - I

- Q.1** Define or describe following terms: **(10)**
- a) Diffraction
 - b) Diffusion
 - c) Specular Reflection
 - d) Masking
 - e) Standing Waves
- Q.2** Write short notes on: **(10)**
- a) Sound Power Level and Sound Pressure Level
 - b) Sound Transmission Class and its application
- Q.3** Write short notes on: **(10)**
- a) Panel and cavity resonators
 - b) Mechanics of sound absorption
- Q.4** Explain sound reinforcement systems its components and specifications. **(10)**
- Q.5** An auditorium for 250 seating capacity is to be designed for music performance. Describe the process of design, calculate Reverberation Time, Sound Transmission Class, and required absorption for the auditorium. **(10)**

SECTION – II

- Q.6** Define or describe following terms: **(10)**
- a) Waterless Urinals
 - b) Urban Runoff
 - c) Vent pipe
 - d) Soak pit
 - e) Potable water
- Q.7** Write short notes on: **(10)**
- a) Solar hot water system and its sizing
 - b) Two methods of natural water recharge system
- Q.8** Write short notes on: **(10)**
- a) Aeration/Oxidation for sewage system
 - b) Waste water treatment methods
- Q.9** Discuss the strategies at all scales for responding to aqueous environment in hot and dry climate. **(10)**
- Q.10** Design and explain the sustainable water management plan and conservation for a neighborhood based on following points: **(10)**
Sources, Distribution, Consumption, Water Budgeting, Recycling, Reuse, Water Efficient Landscaping.

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