

**M. ARCH. SEM-III (SUSTAINABLE ARCHITECTURE) (2014
COURSE) (CBCS) : WINTER - 2017**
SUBJECT: ENERGY CONSERVATION – III (ACOUSTICS & AQUEOUS)

Day : **Wednesday**
Date : **08/11/2017**

Time **10.00 A.M. TO 12.00 NOON**
Max. Marks: 60

W-2017-3266

N.B.

- 1) Attempt any **THREE** questions from each section.
- 2) Figures to the right indicate **FULL** marks.
- 3) Answers to both the sections should be written in **SEPARATE** answer book.

SECTION – I

- Q.1** Define the following terms: Focusing, Wave Length, Diffusion, Reverberation Time, and Flutter. (10)
- Q.2** Write short note on Sound Directivity and Sound in an Enclosed field. (10)
- Q.3** A seminar hall of 150 seating capacity is to be acoustically designed for speech and music. Describe the procedure and constraints for Acoustical design. (10)
- Q.4** Write short note on Sound Transmission Class and Acoustic Shadow. (10)
- Q.5** Discuss characteristic of absorptive materials, fixing details for walls, ceiling and flooring. (10)

SECTION – II

- Q.6** Define the following terms: Counter Bunding, Sources of water for recharge, water characteristics and its classification, Vermicomposting, Segregation of Waste. (10)
- Q.7** Write short notes on the following/Long Questions: (10)
- a) Thermosiphon solar water heater, its advantages and disadvantages with neat sketch.
 - b) Explain step wise water treatment method in detail with sketches as required.
- Q.8** Describe the following or Long Questions: (10)
- a) Treatment techniques for waste processing.
 - b) Describe rain water harvesting system and the basic components of the roof top system with appropriate sketches.
- Q.9** Write a note on water pollution its causes and remedies. (10)
- Q.10** Explain in detail with appropriate sketches the process of a septic tank. (10)

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