

Day: Thursday  
Date: 07.05-2015

Time: 10.00 A.M. To 1.00 P.M.  
Max marks: 100

N.B:

- 1) All questions are **COMPULSORY**.
- 2) Answer to the two sections should be written in **SEPARATE** answer book.
- 3) Neat diagrams must be drawn **WHEREVER** necessary.
- 4) Figures to the right indicate **FULL** marks.
- 5) Use of logarithmic tables, side rules, and calculator is allowed.

### SECTION-I

- Q.1 What is reverberation time? How is reverberation time calculated? Mention the optimum reverberating time for. (10)
- a) Cinema theaters
  - b) Music concert
  - c) Assembly hall
  - d) Conference hall
- Q.2 Explain with sketches design principles of an acoustical building like auditorium. (10)
- Q.3 Write difference between (Any Five) (30)
- a) Sound foci and sound echoes
  - b) Indoor noise & outdoor noise
  - c) Acoustics and sound insulation
  - d) Auditorium acoustics and amphitheater acoustics
  - e) Sound and noise
  - f) Sound control and noise control

### SECTION-II

- Q.4 Describe with sketches the mechanical system of vertical communication of high rise building. (10)
- Q.5 Explain building automation system. (10)
- Q.6 Write short notes on the following: (Any Six) (30)
- a) Refuse chute
  - b) Wet risers
  - c) Solvent system
  - d) Smoke detectors
  - e) Lightening protection for high rise buildings
  - f) Acoustical materials
  - g) Defects of sounds