

FACULTY OF ENGINEERING**B.E. 3/4 (Civil) I – Semester (Main) Examination, November 2013****Subject : Building Technology and Services****Time : 3 hours****Max. Marks : 75****Note: Answer all questions from Part-A. Answer any FIVE questions from Part-B.****PART – A (25 Marks)**

1. State any three principles used to judge plans. 3
2. Define 'Prospect' of buildings. 2
3. Define 'Acoustics'. 2
4. List out any three sound absorbent materials. 2
5. What are the different measures considered to reduce spread of fire? 3
6. What is the concept of green buildings? 2
7. Explain briefly effective water conservation system. 3
8. Differentiate between 'union' and 'subtract' commands. 2
9. Explain the procedure to draw a 'cylinder' using Auto cad. 3
10. What is the basic concept used in drawing a power supply system in buildings? 3

PART – B (5 x 10 = 50 Marks)

- 11.a) What is meant by building bye-laws? What are the common errors find in planning a building?
b) List out different principles of planning of buildings. And explain grouping of rooms.
- 12.a) Explain general principles of ventilation, as per building bye laws.
b) State different properties of air to get good ventilation, as per building bye laws.
- 13.a) What is meant by reverberation? And how to determine this parameter?
b) Explain the phenomenon sound distribution in auditorium.
14. Draw water supply arrangement inside the house. Show supply arrangements clearly with all features indicating in diagram.
- 15.a) What is the necessity of green building technology in India?
b) List out different low energy materials used in green buildings.
16. Plan a residential building, given the sizes of different rooms. Building faces North.
 - i) Master bed room = 14m²
 - ii) Living room = 20m²
 - iii) Dining area = 8m²
 - iv) Kitchen = 8m²
 - v) Verandah = 6m²
 - vi) Children bed room = 12m²

Sketch the plan, sectional elevation passing through kitchen and verandah. Indicate doors and windows wherever necessary with suitable dimensions.

17. Write short notes on the following :
 - a) Certification system – GRIHA
 - b) Different commands in Auto CAD-3D.
