

FACULTY OF ENGINEERING**B.E. 3/4 (Civil) I – Semester (Supplementary) Examination, July 2014****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)**

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| 1 | State any three common errors find in planning a building. | 3 |
| 2 | What is the importance of building bye laws? | 2 |
| 3 | What are the different measures used to get artificial ventilation in buildings? | 2 |
| 4 | What is meant by acoustic intensity? | 2 |
| 5 | What are the different communication services used in buildings? | 2 |
| 6 | Based on what parameters the water supply in building depends. | 3 |
| 7 | Explain the necessity of green buildings. | 3 |
| 8 | List out some low energy materials. | 3 |
| 9 | What are the Boolean commands? | 2 |
| 10 | Explain the procedure to draw a 'pyramid' using Auto cad. | 3 |

PART – B (50 Marks)

- 11 a) List out different principles of planning of buildings. And explain any two in detail.
b) Define 'circulation'? And explain the design process of a small stair case in a residential building.
- 12 a) As per buildings bye laws, explain different principles of ventilation in buildings?
b) State different design considerations for comfort in buildings.
- 13 a) Describe different factors affecting the 'acoustics' of buildings.
b) Explain in detail the classification of sound absorbent materials.
- 14 Draw power supply arrangement inside the house? Show supply cable arrangements clearly with all features indicating in diagram.
- 15 a) What is the concept of green building? And explain the factors considered in selecting a site for green building.
b) Explain the technology of green buildings through a certification system 'LEED'?
- 16 Plan a residential building, given the sizes of different rooms. Building faces West.
i) Master bed room = 14 m² (ii) Living room = 20 m²
ii) Dining area = 8 m² (iv) Kitchen = 10 m²
iii) Verandah = 8 m²
Sketch the plan, sectional elevation passing through kitchen and verandah.
Provide doors and windows wherever necessary with suitable dimensions.
- 17 Write short notes on the following :
a) Fire resistance in structural elements b) Different views in Auto CAD-3D.
