

B.Tech. Civil (Construction Management)
BTCLEVI

Term-End Examination
December, 2013

ET-521(A) : PLANNING AND CONSTRUCTION
OF BUILDINGS

Time : 3 hours

Maximum Marks : 70

Note : Attempt any five questions. All questions carry equal marks. Use of calculator is allowed. The answer shall be in your own language.

1. A plot of land of admeasures 250 sq.mtr. Prepare a plan of single storied residential building with proper dimensions keeping in view the following provisions : 14
- (a) 3 Bedrooms (2 bedrooms are with attached bathroom)
 - (b) One dinning cum living room.
 - (c) One common toilet
 - (d) One drawing - cum - dining room
 - (e) One kitchen
 - (f) One store room
 - (g) Utility space

Assume all standard dimensions and follow the standard building rules of a Municipal Corporation.

2. (a) What are the basic requirements for judging the suitability of a site for all types of building ? Explain the importance of environmental impact study. 7
- (b) What are the three factors which may cause local deviations from the zonal climate ? Explain. 7
3. (a) State the minimum standards for Rural Housing as suggested by NBO. Explain various types of building as classified by the NBO : 7
- (b) State some foundation problems that are common to all types of buildings. Define shallow foundation and name various types of foundations used in building. 7
4. (a) What are the materials used in the application of water proofing layer on the thatched roofs. Name an insecticide and a fire-retardant chemical. 7
- (b) What are the various test to be carried out to ascertain the quality of bricks ? What is the purpose of providing a bond in the construction of a brick work ? 7
5. (a) What are the various factors to be considered while locating a door ? Draw a dimensioned sketch of a battened ledged and braced door. 7

- (b) What is a fan light and why is it provided ? 7
What are sky lights and why are they provided ?
6. (a) What are the various ways in which stone 7
is used as a facing material ? Explain texture finishes ?
- (b) What are the components of oil based 7
paints ? Name the different kinds of paints and their uses.
7. Write short notes on the following : $4 \times 3\frac{1}{2} = 14$
- (a) Types of thermal insulation
- (b) Accoustic materials
- (c) Roofing materials
- (d) Glazed or sash doors
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