



Reg. No. : .....

Name : .....

**Fourth Semester B.Tech. Degree Examination, May 2013  
(2008 Scheme)**

**Branch : Civil**

**08.406 : BUILDING, PLANNING & DRAWING**

Time : 3 Hours

Max. Marks : 100

- Instructions :**
- 1) Answer **all** questions from Part – **A** and **any one** question from Part – **B**.
  - 2) Answer questions from Part – **A** in answer book and Part – **B** in drawing sheet supplied.
  - 3) Assume **suitable** and reasonable data **wherever** necessary.

**PART – A**

1. Explain how plan, section and elevation of a building can be drawn.
2. What is the necessity of limiting coverage and floor area ratio ?
3. Differentiate between service plan and site plan.
4. Write any five commands used in AUTOCAD. **(4×5=20 Marks)**

**PART – B**

5. The line sketch of a building is given in Fig.1. Draw the plan, section AB and front elevation of the building as per the following specifications.
  - Foundation. RR in CM, 1:5, 60 cm wide and 45 cm deep over a leveling course of PCC 1:3:6, 45 cm wide and 10 cm thick.
  - Basement : RR in CM, 1:5, 45 cm wide and 45 cm deep above ground level

P.T.O.



- Super structure : Brick work in CM 1.4, 20 cm thick and 300 cm height with RC lintels 15 cm thick along the walls.
- Roof : RCC slab 12 cm thick.

Inside dimensions (in meters) are given in Figure. Provide appropriate positions and dimensions for openings.

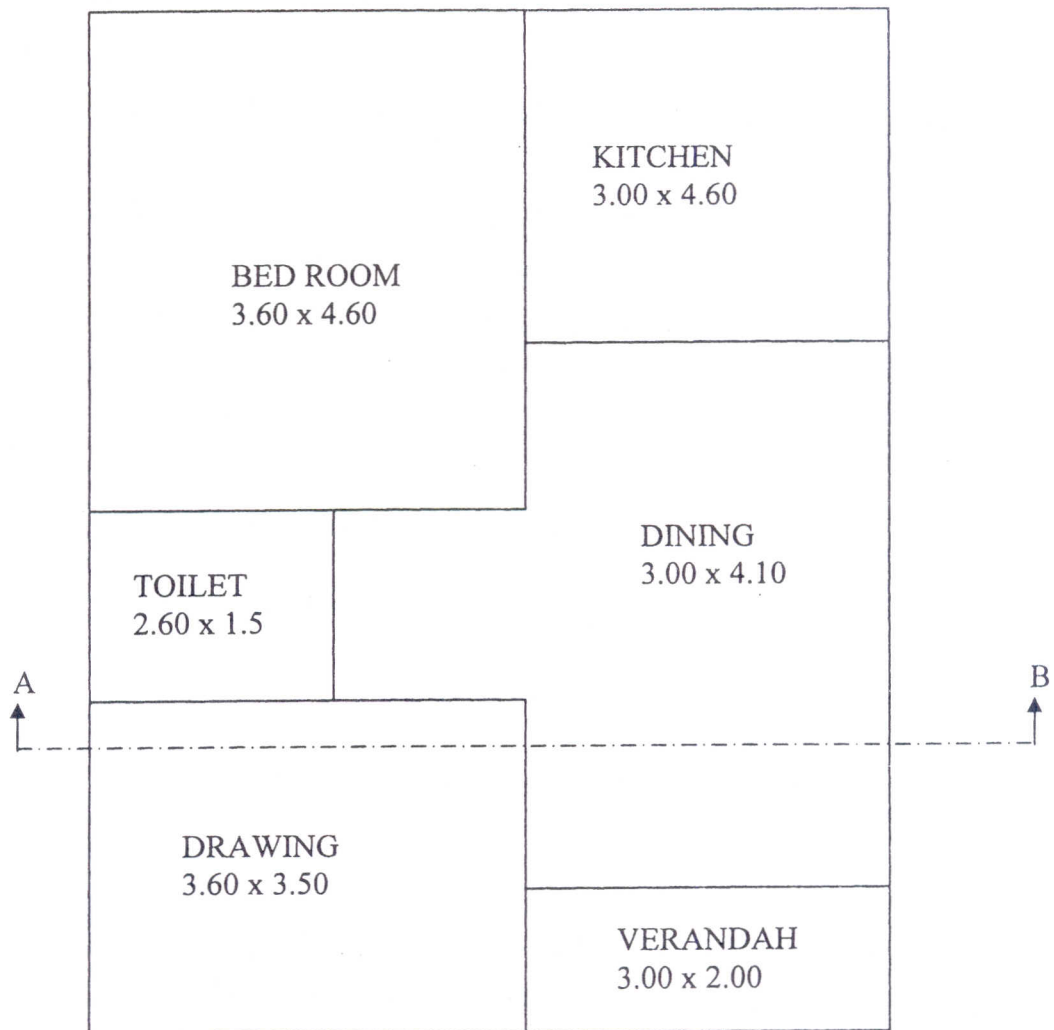


Fig. 1

OR



6. A slab culvert designed for a highway across a stream has a clear span of 4 metres. The abutments constructed in rubble masonry are trapezoidal in section with water face vertical. The top width of the abutment is 60 cm and bottom width is 120 cm. Foundation of abutment is of mass concrete 1:4:8 having a width of 180 cm and a thickness of 40 cm. The water way is lined with 10 cm thick brick flooring over 15 cm thick 1:4:8 concrete. The culvert slab is of reinforced concrete (1:2:4) having a thickness of 30 cm. The reinforcement of the culvert slab consist of 22 cm diameter bars at 12 cm centre to centre and 10 mm diameter bars at 15 cm centre to centre. The cover for reinforcement is 40 mm. The railing consists of 36 mm diameter G.I. pipes in 4 rows passing through angle iron posts 90x90x6mm fixed at 50 cm intervals.

R.L. at the top of culvert slab is 88.000

R.L. at the top of brick flooring of the stream is 85.240

R.L. at the base of the foundation of abutment is 83.850.

Draw the following views of the slab culvert to a suitable scale.

- a) A plan one half at top and the other half at foundation level.
- b) A cross section.
- c) A longitudinal elevation, one half in section along the centre line of the roadway.