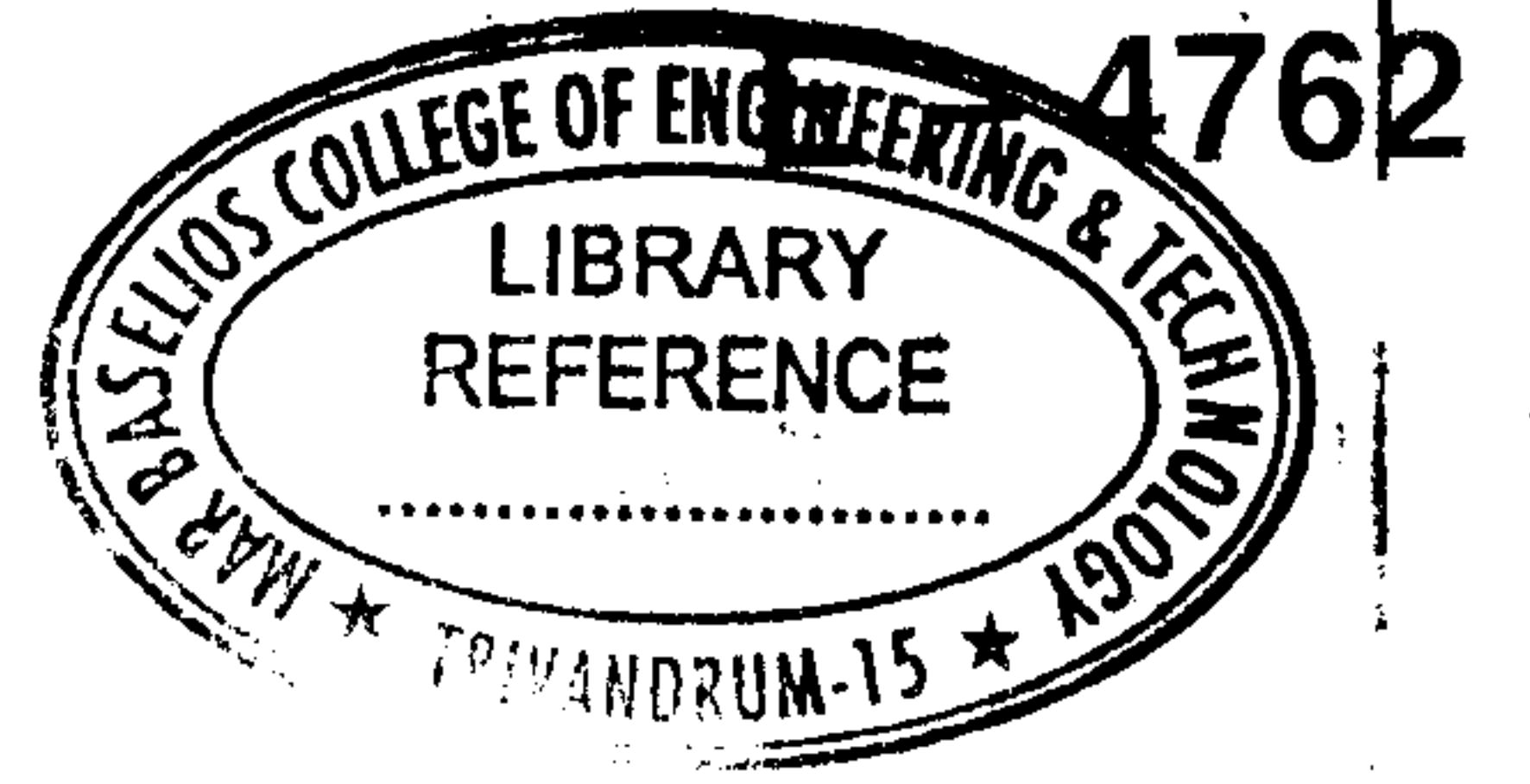




(Pages : 2)



Reg. No. :

Name :

**Fourth Semester B.Tech. Degree Examination, September 2018
(2008 Scheme)**

08.406 : BUILDING, PLANNING AND DRAWING (C)

Time : 3 Hours

Max. Marks : 100

- Instructions :** 1) Answer **all** questions in Part – A (**compulsory**).
2) Answer **any one** question in full from Part – B.
3) Answer Part – A in answer book and Part – B in the drawing sheet supplied.

PART – A

1. Explain CRZ rules.
2. Discuss the importance of FAR in design of building.
3. Explain the difference between slab culvert and box culvert based on working drawing preparation.
4. Explain the use of micro station software. (4x5=20 Marks)

PART – B

5.

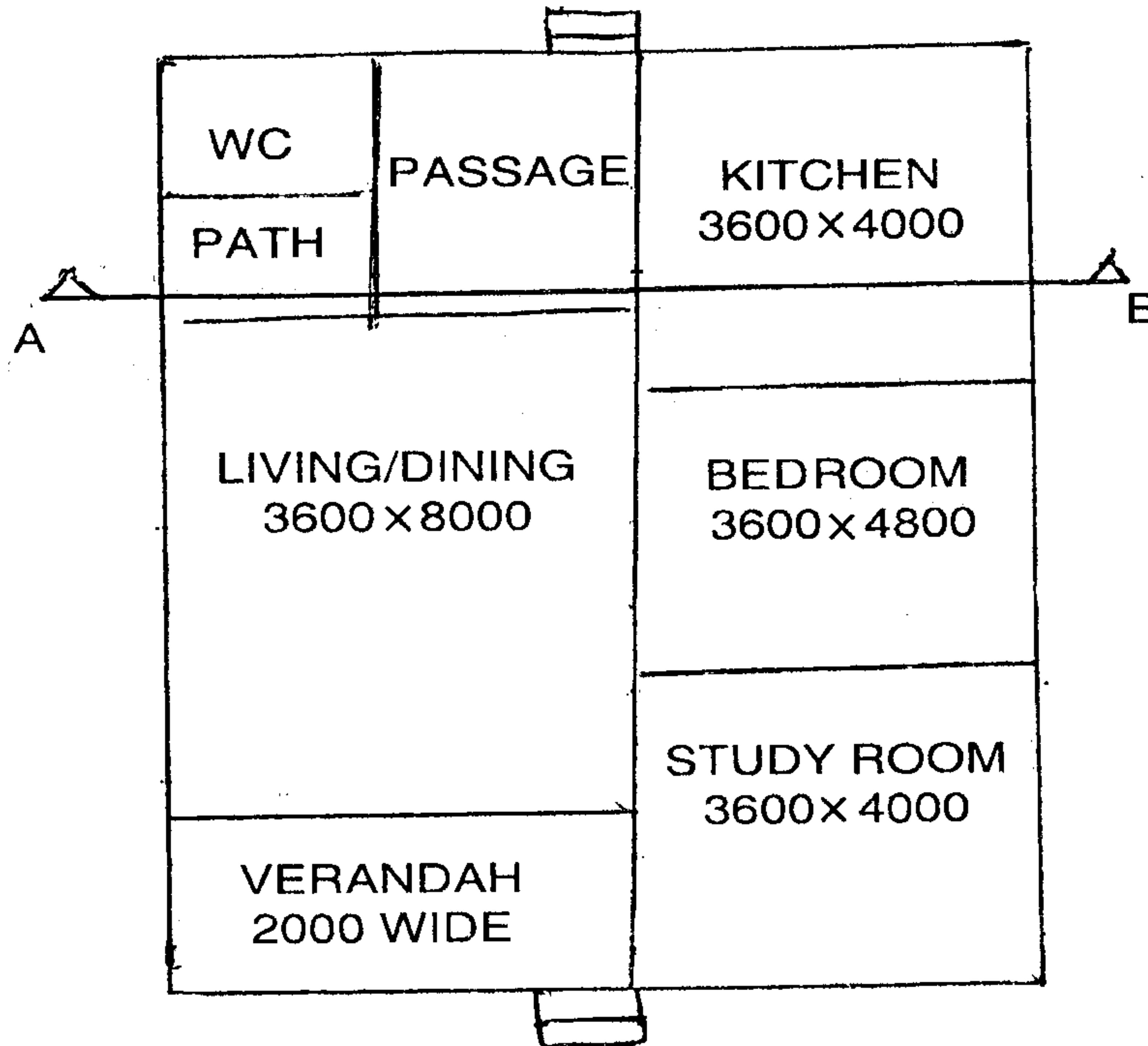


Figure 1

P.T.O.

E – 4762

The line plan of a building is given in figure (1). Position of doors and windows are to be provided. All dimensions in millimeters. The specification are as follows.

Foundation and basement : 120 cm below G.L. : PCC 20 cm thick 90 cm wide. The basement is 50 cm below GL.

Super structure : The walls 30 cm, CM 1 : 6. The central height is 360 cm and side walls 270 cm. Flooring PCC 1 : 4 : 8, 10 cm thick.

Roofing : RCC slab 12 cm thick with slope to both sides of central wall. Clear head room of bath and WC is 240 cm. The verandah has 30 cm deep beam at lintel level.

Prepare :

- a) Plan
- b) Section AB
- c) Front elevation
- d) Specification table.

(25+30+15+10)

6. A slab culvert designed for a highway across a stream has a clear span of 5 m. The abutments constructed in rubble masonry are trapezoidal in section with water face vertical. The top width of 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 RCC 1 : 2 : 4 having 30 cm thickness. The reinforcement of culvert slab consists of 22 mm dia bars at 12 cm centre to centre and 10 mm dia bars at 15 cm centre to centre. The reinforcement cover is 40 mm. The railing consists of 36 mm diameter GI pipes in 4 rows passing through angle lcon posts 90 × 90 × 6 mm fixed at 50 cm intervals.

RL at the top of culvert slab is 97.000.

RL at top of brick flooring of stream is 94.240.

RL at the base of foundation of abutment is 92.850.

Draw the (1) Longitudinal sectional elevation of this culvert (scale 1 : 50) and plan of culvert. (2) Details of slab culvert.