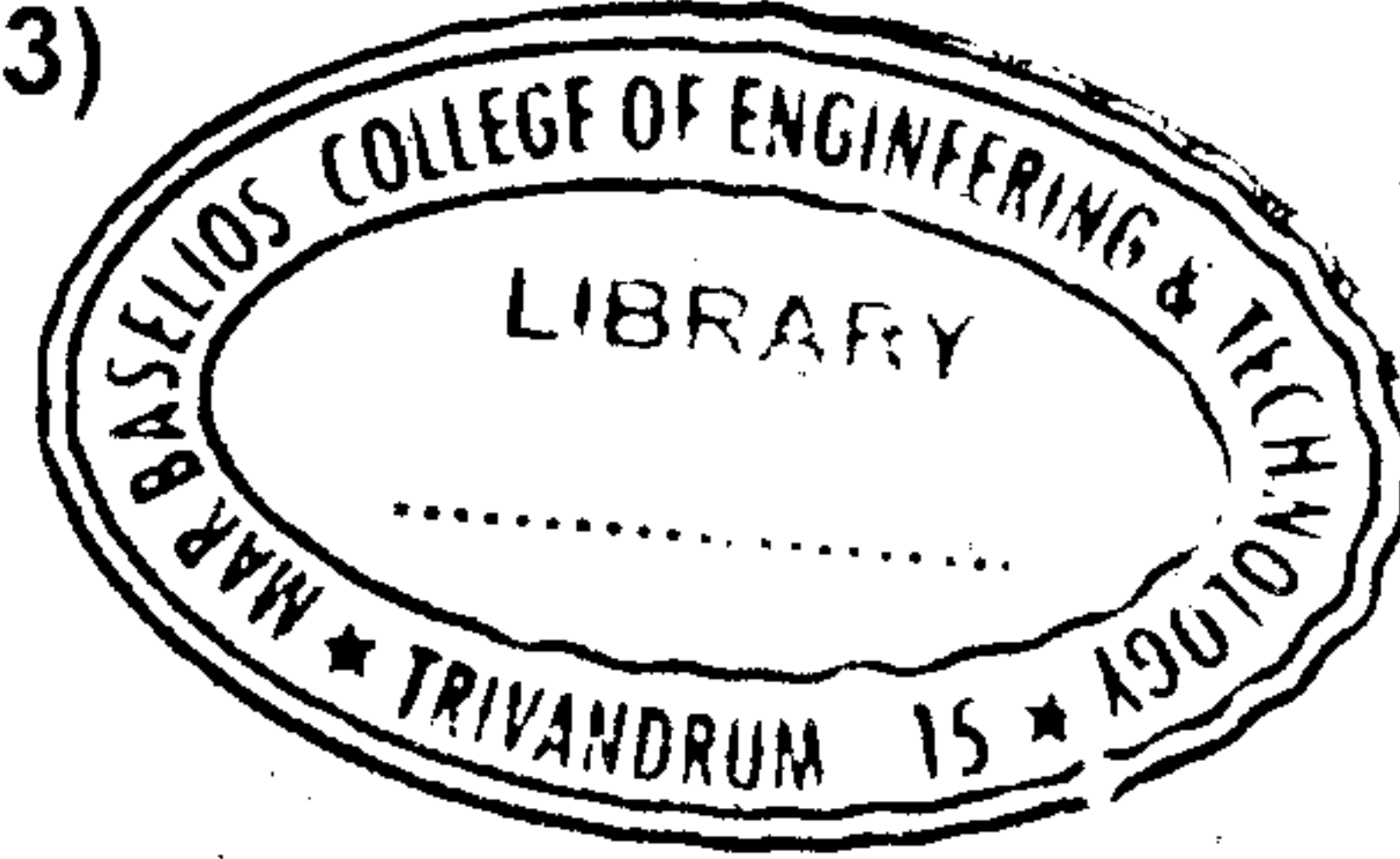


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Reg. No. : .....

Name : .....



**Fourth Semester B.Tech. Degree Examination, June 2019**

**(2008 Scheme)**

**Civil Engineering**

**08.406 : BUILDING, PLANNING AND DRAWING**

Time : 3 Hours

Max. Marks : 100

Notes :

1. All questions in Part A are compulsory.
2. Answer any one question in full in Part B.
3. Answer Part A in answer Book and Part B is drawing sheet supplied.
4. Assume suitable and reasonable data wherever necessary.

**PART – A**

1. Write short notes on plinth area, carpet area and covered area.
2. Discuss the building by laws relating height restrictions for different types of building as per Kerala municipal building rules.
3. Differentiate between the site plan and services plans of buildings.
4. Write any five commands used in the preparation of drawing using Auto CAD.

**(4 × 5 = 20 Marks)**

P.T.O.

PART – B

5. The line plan of a residence is given in fig. 1 prepare plan. A section on AB. And front elevation. Of the building to the following specifications. **30+30+20**

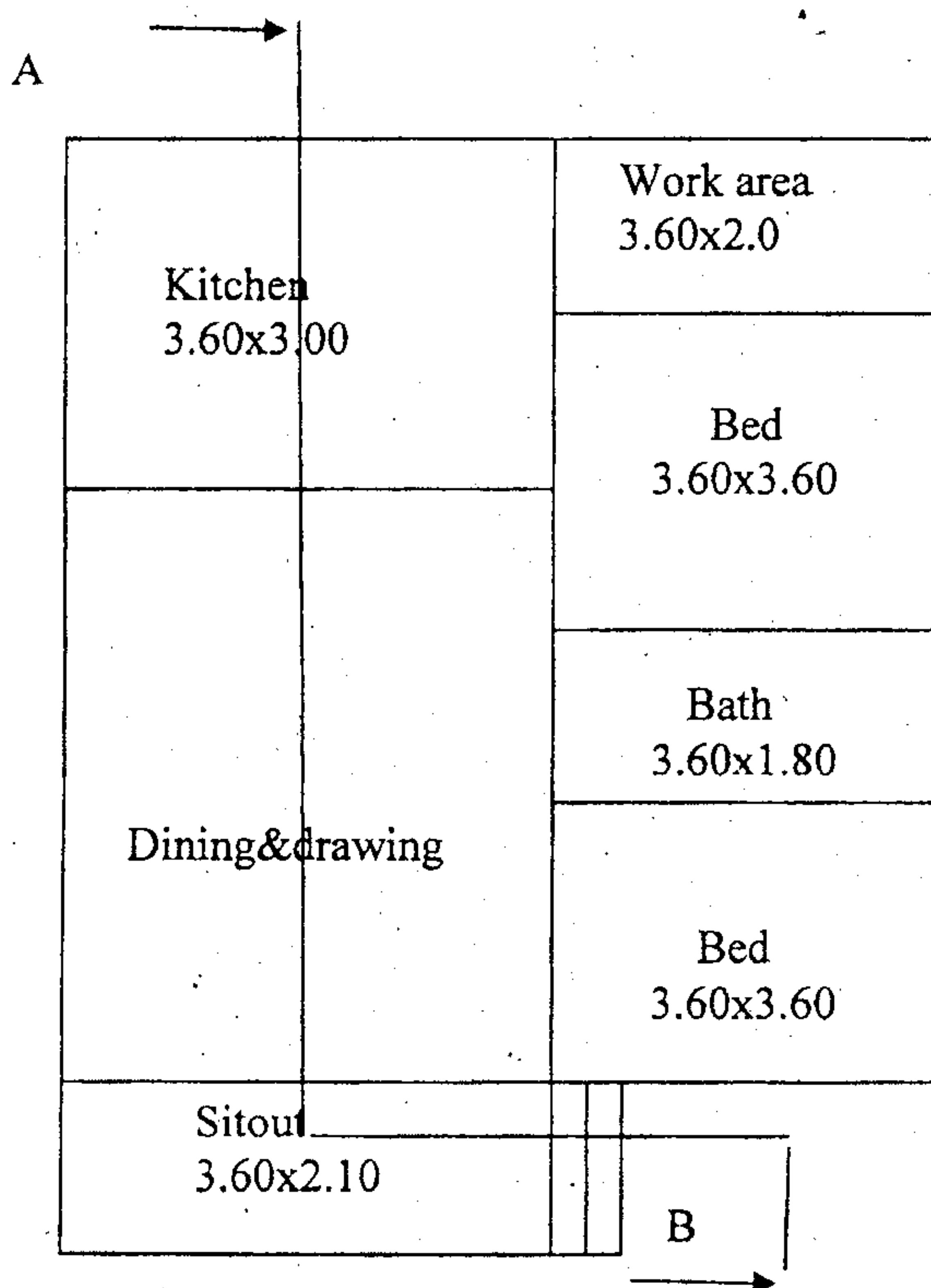
Foundation : R. R in cm 1:5, 60 cm wide and 60 cm deep over a levelling course of P.C.C. 1:4:8, 80 cm wide and 15 thick .

Basement :

R.R. in cm 1:5 , 45 cm wide and 60 cm deep above ground level.

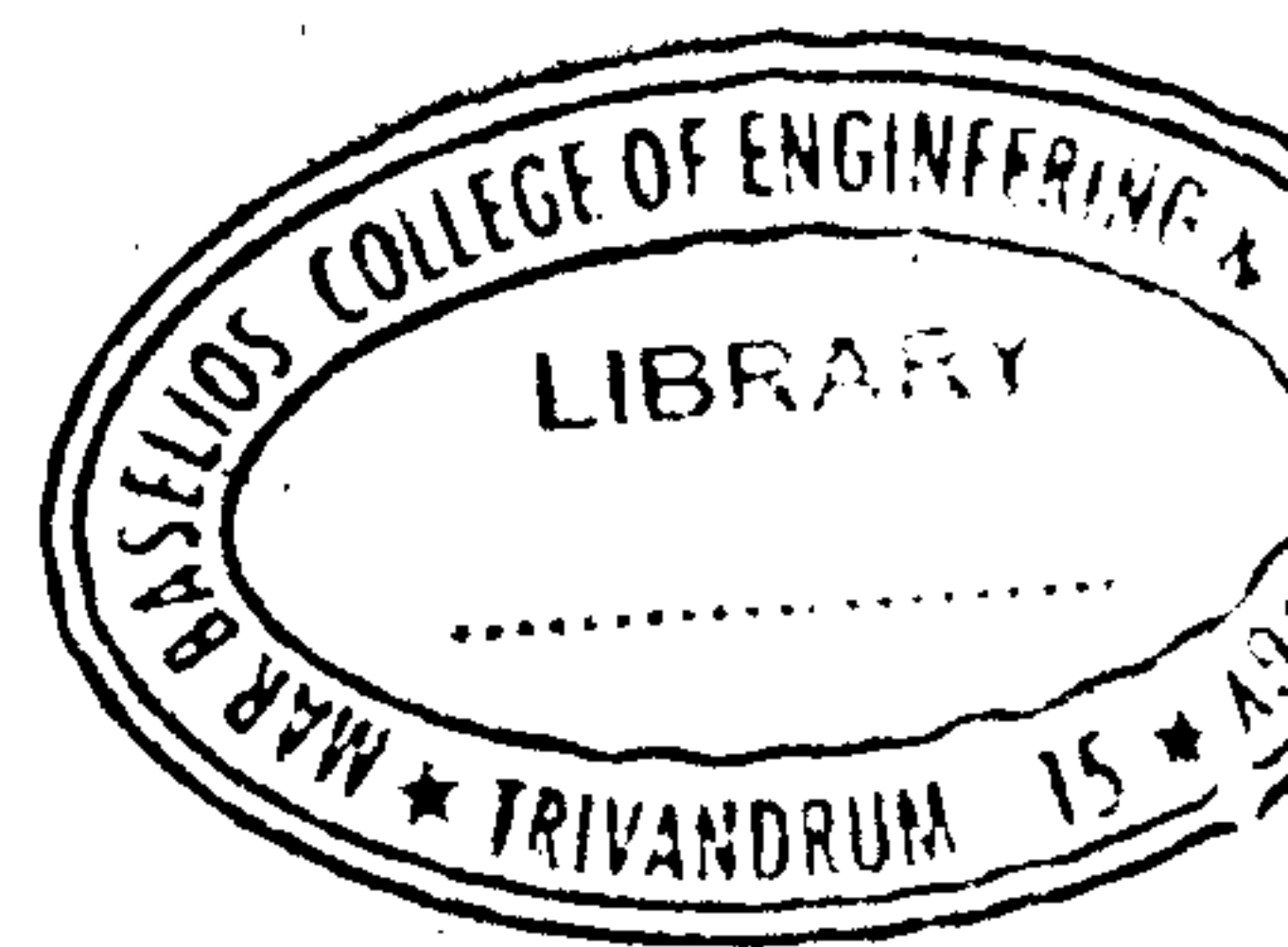
Super structure : Bricks is cm 1:5, 30 cm thick and 300 cm height with R.C. listed 15 cm over openings and along the walls.

Roof : R.C.C. root slab 12 cm thick Dimensions (in metres) given are room size. Provide appropriate position and dimensions for openings.



All are inner dimensions in m

Fig 1



6. The specifications of a single space R.C. slab culvert are given below :

Clear span : 2.20m

Height of water way : 1.7 m

Free broad : 0.20 m

Bed level of stream of site : +23.00 m

Slope of natural ground on either side of stream : 1 m 5

Width of road way between kerbs : 4.20 cm

Side slope of embankment : 1:1

Foundations : P.C.C 1:5:10, 100 cm wide and 30 m thick for abutments and wing walls. All foundations are laid at a depth of 80 m below bed level.

Abutments and wing walls : R.R. in CM 1:6, thickness at mid heights is 80 cm and for the remaining portion is 65 m. Water face is vertical. The wings return square with the abutments and have a length of 2 m measured from the face of abutments at foundation level.

Deck slab : R.CC slab 25 m thick. Width of bearing of slab is 25 m. Thickness of wearing coat is 4 m.

Parapet : R.R. is cm is 1:6 , 40 m thick and 60 m height. Base projects by 7.5 m × 15 m to become road kerb.

Flooring : 13 m thick P.C.C. flooring is gives just below the bed level. Indicating reduced levels of all important features, draw to a suitable scale the following views of the culvert.

- |   |    |
|---|----|
| (a) Plan-half foundation plan at bed level and half top plan. | 30 |
| (b) Half sectional elevation.                                 | 30 |
| (c) A longitudinal section.                                   | 20 |

