USN | | | | | | | | | | |

10CV46

Fourth Semester B.E. Degree Examination, June 2012
Building Planning and Drawing

Time: 4 hrs. Max. Marks:100

Note: ***1. Section-I is compulsory. Answer any TWO questions from Section-II.***
2. Suitable data may be assumed wherever necessary.

SECTION – I (Compulsory)

1 The line diagram of a residential building is given in Fig.Q.1. Draw to a scale of 1:100.
- a. Plan at sill level. **(25 Marks)**
- b. Front elevation. **(15 Marks)**
- c. Section on x – x. **(15 Marks)**
- d. Schedule of openings. **(05 Marks)**

Note: All load bearing walls are of 230mm thick, BBM built on SSM foundation. Roof is RCC and the roof height is 3.0m from floor finish. Lintel level is 2.1m above the plinth level. Assume suitable size for openings.

SECTION – II

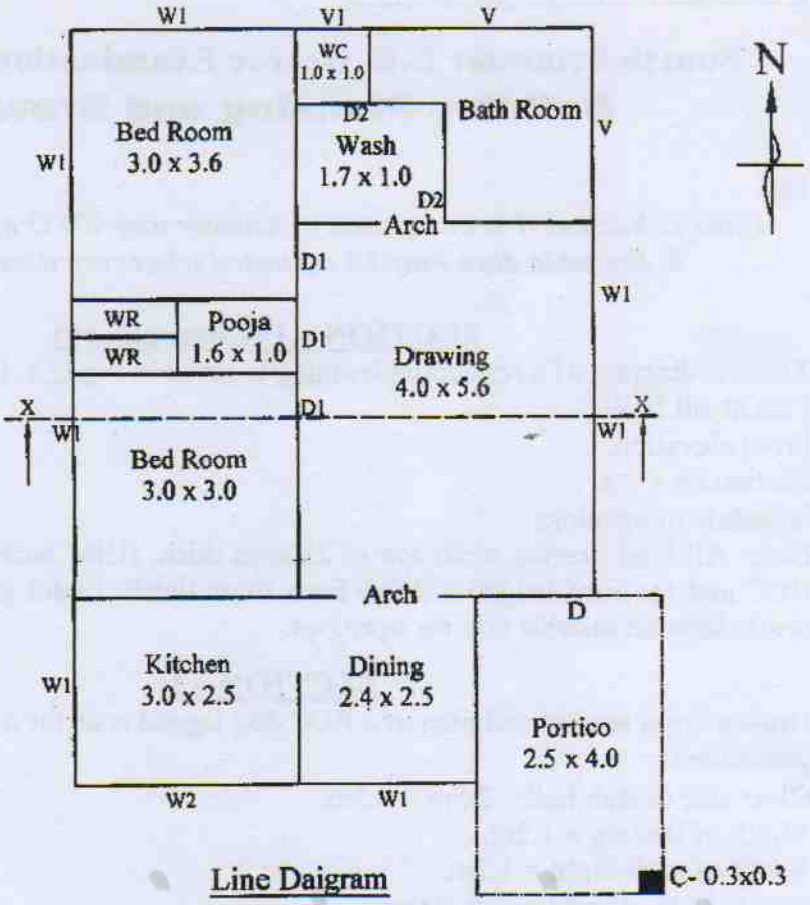
2 Draw a cross section and plan of a RCC dog legged stair for a building having the following particulars:
- a. Clear size of stair hall = 2.5m × 4.5m.
- b. Width of landing = 1.2m.
- c. Width of each flight = 1.2m.
- d. Rise = 150mm and tread = 300mm.
- e. Thickness of waist slab = 150mm.
- f. Height of floor = 3.6m. **(20 Marks)**

3 It is proposed to construct a primary school building for rural area with a plinth area requirement of about $300m^2$ on a site measuring 70m × 100m; of which 100m side faces the road. Provide the following requirements:
- a. Head Master's room.
- b. Staff room with toilets.
- c. 06 numbers of class rooms
- d. Library.
- e. Sports room.
- f. Toilets for students.

The minimum set backs to be provided as per bye-laws. Prepare a line diagram with dimensions to a scale 1:100. **(20 Marks)**

4 Prepare a bubble diagram (connectivity diagram) and develop a line diagram for a canteen building of an engineering college and requirements for the building are:
- a. Dining area for boys and girls separately.
- b. Dining area for staff.
- c. Kitchen.
- d. Stores for kitchen.
- e. Utilities attached to kitchen.
- f. Students strength of the college is 2500. **(20 Marks)**

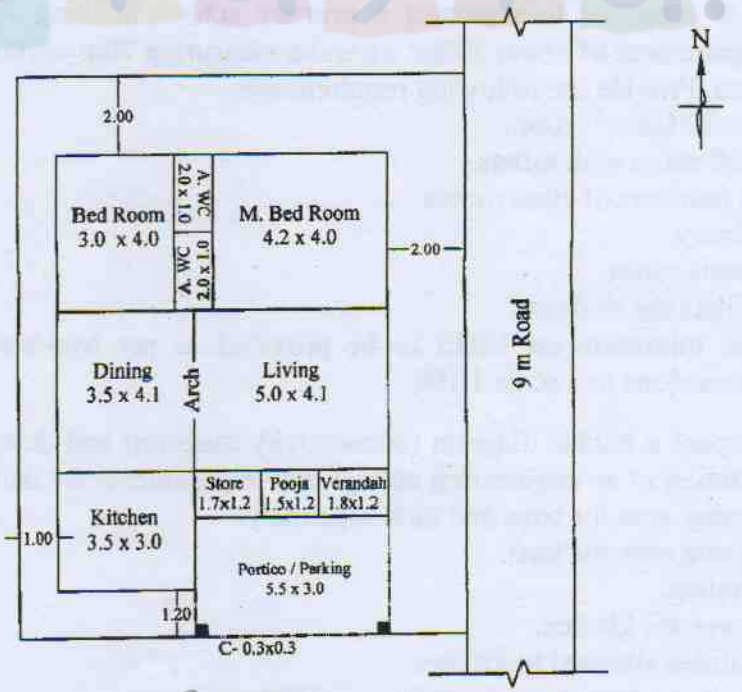
5 The line diagram of a residential building is shown in Fig.Q.5. Prepare water supply, sanitary and electrical layout plans with usual notations to a scale of 1:50. **(20 Marks)**



Line Daigram

All dimensions are in meters

Fig.Q.1



Line Daigram

All dimensions are in meters

Fig.Q.5

* * * * *