



SURYA POLYTECHNIC COLLEGE
Surya Nagar, Vikiravandi, Villupuram - 605 652

DEPARTMENT OF CIVIL ENGINEERING – II YEAR
MODEL EXAM - II

Subject : Building Planning And Drawing.

QP Code : 103

Time : 3 Hours

Sub Code : 4010340

Max. Marks : 100

[N.B:- (1) Answer all questions under PART – A in the drawing sheet supplied.

(2) Answer the question PART – B in the drawing sheet supplied.

(3) The sketch under PART – A should be drawn using pencil and drawing instruments, not necessarily to scale.

(4) Any data, not given may be assumed suitably and should be indicated in the drawing.]

PART – A

(2 X 4 = 8 Marks)

I. Answer the following:

1. What is meant by Ramp?
2. Name the various details to be shown in a site plan?

PART – B

(1 X 12 = 12 Marks)

II. Sketch the elevation of a king post truss using the following details :-

Ridge piece	=	75 x 220
Reepers or battens	=	50 x 15
Commen rafter	=	75 x 120
Principal Rafter	=	100 x 150
Tiled Roofing	=	Suitable
Purline	=	200 x 100
Cleat	=	230 x 100 x 75
Wall plate	=	100 x160
Eaves Board	=	20 x 200
Bed stone	=	150 tk
Tie beam	=	100 x 250
Tie beam span	=	7500
Wall thickness	=	300 mm
3- way strap	=	50 x 100
King post	=	100 x 100
Strut	=	100 x 100

III. The sketch shows the line plan of “ A Residential Building – Two Bed Rooms with R.C.C. Flat roof “ the dimensions noted therein indicate the clear dimensions between the inside walls. The specifications are given below.

1. Specification : -

The following specifications correspond to a residential building – two bed room and attached bath room with R.C.C. flat roof.

2. Foundation : -

The foundation for all main walls and verandah will be in C.C. 1:4:8 mix, 1500 x 1500 wide 150 thick and R.C.C. 1:1.5:3 footing size 1200 x 1200 wide 150 thick. The R.C.C. Column 200 x 200 wide and footing taper will be 600 height, earth beam size 200x 300, and 1800 below ground level.

3. Basement : -

R.C.C. column size is 200 x200, 450 thick and the basement will be in brickwork in C.M. 1:5, 450 height above ground level for all main walls and is filled with clean river sand to a depth of 300. A D.P.C. in C.M. 1:3, 20 thick will be provided for all walls at basement level.

4. Superstructure : -

All walls will be in brickwork in C.M. 1:5, using first class bricks, 200 thick. The height of all ground floor walls will be 3000 above floor level. The partition walls will be 100 thick in brick work in C.C. 1:4 and build over flooring concrete. Parapet walls is 200 thick and 800 height. All the walls including basement will be plastered smooth with C.M. 1:4 for 12.5 thick.

5. Roofing : -

The roofing will be of R.C.C. 1:1.5:3 mix, 100 thick flat slab. A weathering course in brick jelly concrete plastered with combination mortar 1:5:10 mix, 75 thick, will be provided over the flat slab.

6.. Doors, Windows etc.,

D1- Door (P)	- 1200 x 2100	W1 – Window	- 900 x 1200
D2 - Door (P)	- 1000 x 2100	O – Open	- 1200 x 2100
D3 - Door (P)	- 750 x 2100	CB – Cup Board	- 1000 x 1200
V – Ventilator	-750 x 600		

7.. Lintel and Sunshade :-

All the walls openings will be provided with R.C.C. lintel 1:1.5:3 mix, 300 thick and sunshade provided with R.C.C. 1:1.5:3 mix, 500 wide and 70 thick.

8.. Flooring :-

The flooring will be in C.M. 1:4:8, 130 thick, plastered smooth with C.M. 1:3, 20 thick for all the portions.

9.. Steps :-

Steps will be brickwork in C.M. 1:5 laid on 1200 x 600 C.C. 1:4:8 footing. Provide steps of rise 150 and tread 250

Note : * Any dimensions found necessary may be assumed suitably making clear indications of the same

- All dimensions indicated are in millimeters

