

October 2018

Time – Three hours  
(Maximum Marks: 75)

(Sketch 'X' to accompany)

- [N.B: (1) Answer all questions under PART – A and PART – B in the drawing sheet supplied.  
(2) The sketches under PART – A should be drawn using pencil and drawing instruments, not necessarily to scale.  
(3) Any data, not given may be assumed suitably and should be indicated in the drawing.]

**PART – A**  
(15 marks)

- I Answer the following: (2 x 3 = 6)
1. What is FSI?
  2. Write notes on: Position of doors/windows.
- II Draw the Sectional Plan & Elevation of fully panelled door to the following specifications. (1 x 9=9)

Number of leafs : 2  
Size of door : 1200 X 2100  
Size of frame : 100 X 80  
Size of shutters : 75 X 40  
Panel thickness : 25

**PART – B**  
(60 marks)

- III The sketch shows the line plan of a house with R.C.C roof. The dimensions noted therein indicate the clear dimensions between the walls inside.

Draw to a suitable scale the following views:

- (i) Plan of the building (20 Marks)
- (ii) Sectional elevation on ABCD (25 Marks)
- (iii) Front elevation (15 Marks)

1. Foundation: The foundation for all main walls will be cement concrete 1:4:8 mixes, 750 wide and 100 thick laid at 1200 below ground level. The masonry footing will be in random rubble masonry in cement mortar 1:5, the size of first being 750 X 450, the second being 600 X 450 and third being 450 X 200 for all main walls.

The foundation for veranda walls will be cement concrete 1:4:8 mixes, 600 wide and 100 thick laid at 550 below ground level. The masonry footing will be in Random Rubble masonry in cement mortar 1:5, the size being 450 X 450.

2. Basement: The basement will be in random rubble masonry cement mortar 1:6, 300 wide and 600 high above ground level for all main walls and is filled with clean sand to a depth of 450. A damp proof course in cement mortar 1:3, 20 thick will be provided for all walls at basement level.
  3. Super Structures: All walls will be in brick work in cement mortar 1:5, using first class bricks, 200 thick. The height of main walls will be 3000 above floor level. The partition walls in between bath and Toilet will be 100 thick in brickwork in cement mortar 1:5 using country bricks. All the walls including basement will be plastered smooth with cement mortar 1:4 externally and 1:6 internally for 12.5 thick. Parapet walls 200 thick and 750 height will be provided all-round.
  4. Roofing: The roofing will be of R.C.C 1:1.5:3 mix, 100 thick flat slabs over the rooms and Sit-out. A weathering course, 75 thick consists of two course of flat tiles set in the cement mortar 1:3 mixed with crude oil will be provided over the slab.
  5. Joineries:
 

Doors, Windows & Ventilators etc.

D1 - Panelled door	: 1200 X 2100
D2 - Panelled door	: 1000 X 2100
D3 - Panelled door	: 900 X 2100
D4 - Panelled door	: 750 X 2100
O - Opening	: 1000 X 2100
W1 - Panelled window	: 1500 X 1200
W2 - Panelled window	: 1200 X 1200
V - Ventilator glazed	: 900 X 450
  6. Lintel: All internal wall openings will be provide with R.C.C lintel, 1:1.5:3 mix; 150 thick and all external wall openings will be provided with R.C.C lintel-cum sunshade, 1:1.5:3 mix, projection being 450 wide and 80 thick at support and 50 thick at free end.
  7. Flooring: The flooring will be in cement concrete 1:4:8, 100 thick and finished with vitrified tiles of 20 thick over cement mortar 1:3 bed of 30 thick for all the portions.
  8. Steps: Steps will be in brickwork in cement mortar 1:5 laid on 800 X 150 cement concrete 1:4:8 footing. Rise 150, Tread 300.
- Assume any other data if necessary and indicate the same in the drawing clearly.

Sketch 'X' to accompany QP Code: 711

