

November 2022

Time - Three hours
(Maximum Marks: 100)

- (N.B. 1. Answer all questions under Part-A and Part-B in the drawing sheet supplied.
2. Q.No. 1 & 2 each carries 4 marks, Q.No 3 carries 12 marks and Q.No. 4 carries 80 marks.
3. Sketches under Part-A shall be drawn using pencil and drawing instruments not necessarily to scale.
4. Any data not given may be assumed suitably and shall be indicated in the drawing.
5. All dimensions indicated are in "mm".]

PART - A

1. What is setback and plot coverage?
2. List the documents necessary to get a local body approval for the construction of a residential building.
3. Sketch the elevation of a "fully paneled double leaf door" to the following specifications. (All dimensions are in mm)

Size of door	1200 x 2100
Door frame size	80 x 100
Top rail	100 x 40
Lock rail	150 x 40
Bottom rail	150 x 40
Vertical style	100 x 40
Panel	25 mm thick

[Turn Over...

PART - B

4. The sketch "A" shows the line plan of "A READING ROOM WITH R.C.C. FLAT ROOF". The dimensions noted in the line plan are clear dimensions between the walls. The specifications are given below.
Specifications:

1. **Foundation:** The foundation for all main walls shall be in plain cement concrete 1 : 5 : 10 mix, 900 wide and 300 thick. The concrete shall be laid 900 below ground level. The masonry footings shall be in Random Rubble Masonry in cement mortar. 1 : 6. The footing being 610 x 600.
2. **Basement:** The basement shall be in Random Rubble Masonry in CM 1 : 6, 400 x 600 above ground level for all walls. The basement shall be filled with quarry dust /clean sand to a depth of 450.
3. **Super structure:** All walls shall be in brick work in cement mortar 1: 5, 230 thick. The height of all walls shall be 3000 above floor level. All the walls including the basement shall be plastered with CM 1: 4 externally and CM 1: 6 internally for 12.5 thick. Parapet walls 230 thick and 750 height with brick work in CM 1: 5 shall be provided all round.
4. **Roofing:** The roofing shall be of R.C.C. 1: 1.5: 3 mix, 100 thick. A weathering course 100 thick and finished with one layer of hydraulic pressed tiles of size 250 x 250 x 20 in CM 1:3 with water proofing compound.
5. **Lintel:** All the internal openings shall be provided with 150 thick R.C.C. 1 : 1.5 : 3 mix lintels. All the external openings shall be provided with 150 thick R.C.C. 1 : 1.5 : 3 lintels cum sunshade 600 wide.
6. **Flooring:** The flooring shall be in cement concrete 1 : 5 : 10 mix, 110 thick. The top is finished with vitrified tiles of in CM 1 : 3, 40 thick.
7. **Steps:** Steps shall be in brick work in cement mortar 1 : 5 mix laid on 1100 x 150 cement concrete 1 : 5 : 10 mix footing. Rise shall be 150 and tread 300 .
8. **Doors, Windows and Ventilators**
D - Paneled door - 1000 x 2100
W - Window glazed - 1500 x 1200

Draw to a suitable scale the following views with required dimensions and details.

1. Plan at window sill level (30 Marks)
2. Section on AB (30 Marks)
3. Front elevation (20 Marks)

Sketch A - A Reading Room with RCC Flat Roof

