TED (15/19) 3014
(Revision -2015/19)

N21 - 06635

Reg. No…….
Signature ……..

DIPLOMA EXAMINATION IN ENGINEERING/TECHNOLOGY/ MANAGEMENT/COMMERCIAL PRACTICE, NOVEMBER – 2021

BUILDING PLANNING AND DRAWING

[Maximum Marks: **75**] [Time: **2.15** Hours]

[Note: 1. Question **No. II** is Compulsory.
2. Missing data if any may be suitably assumed.
3. **A_2 Size** drawing sheet to be supplied.
4. Drawing shall be neat and fully dimensioned.
5. Sketches accompanies]

(PART-A)

I. Answer any *five* questions in one or two sentences. Each question carries 1 mark.

1. Expand PCC, RCC, NBC.
2. Define Meracantile Building.
3. Define FAR.
4. Draw the conventional signs of brick, RCC and plastering.
5. Define plinth area.
6. List all types of sloped roof.
7. What do you understand by 10W12?
8. What is Mezzanine floor?
9. Define Key Plan.
10. List the Occupancy classification of building. (5x1=5)

(PART-B)

II. (a) Prepare the line plan for a residential building to suit for a plot of 20 x 30m size, according to NBC and KMBR requirements, A road of 5 m width abuts the 20 m side. It should satisfy the following requirements: Sit out, Porch, Living, Dinning, Kitchen, Work area, Store, Master Bedroom, Bedroom, and Toilet. (25)

(b) Prepare a detailed plan & section along XX in 1:100 scale for the line sketch of the residential building given in **fig 1**.

(i) PCC 1:4:8; 80 x 20
(ii) RR masonry for foundation in CM 1:8; 60 x 80
(iii) RR masonry for basement in CM 1:8; 45 x 45
(iv) Superstructure 20cm thick brickwall in CM 1:6, 3m high.
(v) Roofing, RCC slab, M20, 10cm thick with 10cm projection.
(vi) Parapet wall : 10cm thick brick wall in CM 1:6, 60cm ht. provided throughout.
(vii) Sunshade, RCC 7.5cm thick, 40cm wide, provided throughout lintel.
(viii) Step : rise – 15cm, tread – 27cm.
(ix) Door, D=100 x 210, D1 = 90 x 210, D2= 80 x 210
(x) Window: KW = 200 x 150, W= 150 x 150
(xi) Ventilator V = 60 x 40 (15 + 15)

Answer any *one* question from III to VI

III. Draw to a suitable scale, the elevation of a single collar roof of the following details:

Wall thickness = 30cm
Clear span = 500cm
Collar = 4 x 12.5
Ridge = 8 x 20
Eave Projection = 60
Wall Plate = 15 x 10 (15)

OR

IV. Draw to suitable scale the plan and sectional elevation of RCC column footing;
Size of footing =160cm x 160cm; 10mm dia bars 16 nos, bothways.
Size of column = 30 x 30, 4 nos 16mm dia bars, ties 8mm dia @ 15cm c/c. (15)

OR

V. Draw the Eleectrical Service plan of a given **fig 2** & denote the symbols for the fittings. (15)

OR

VI. Prepare a Schematic diagram of Water Supply Connection in a Residential building. (15)

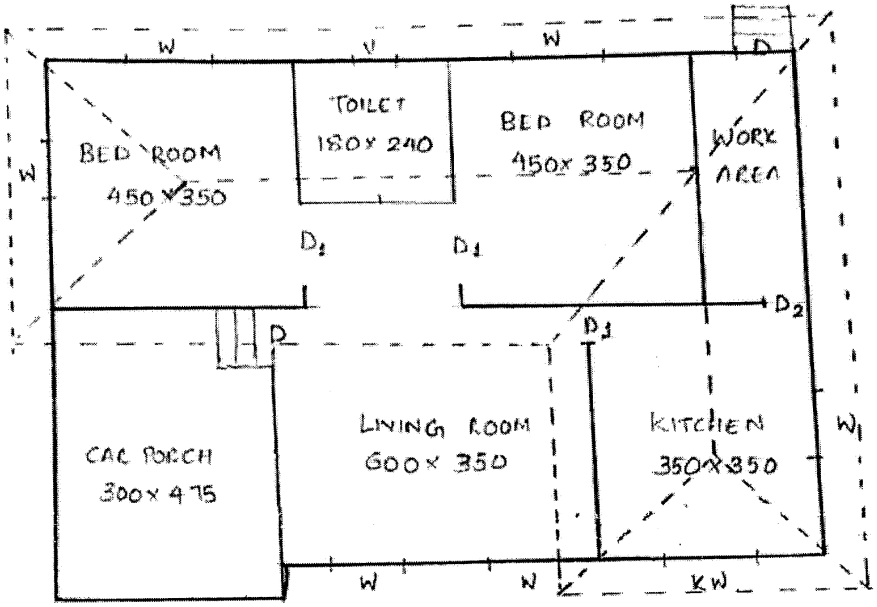
W
V
W
D
TOILET
1.80 x 2.40
BED ROOM
4.50 x 3.50
BED ROOM
4.50 x 3.50
WORK
AREA
W
D1
D1
D2
D
D3
CAR PORCH
3.00 x 4.75
LIVING ROOM
6.00 x 3.50
KITCHEN
3.50 x 3.50
W1
W
W
KW

Fig-1

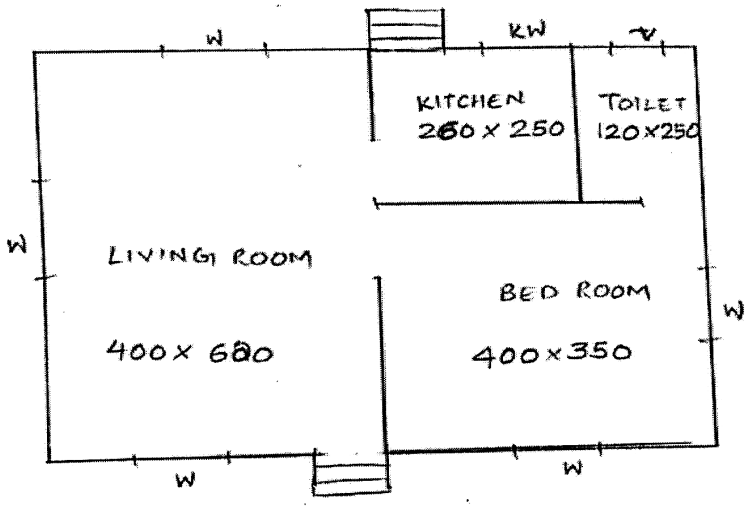
W
KW
V
KITCHEN
2.60 x 2.50
TOILET
1.20 x 2.50
W
LIVING ROOM
4.00 x 6.80
BED ROOM
4.00 x 3.50
W
W
W

Fig 2

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