TED (15) – 3014 Reg. No. .....

(REVISION 2015) Signature .....

THIRD SEMESTER DIPLOMA EXAMINATION IN CIVIL ENGINEERING — APRIL, 2017

BUILDING PLANNING & DRAWING

[*Time* : 3 hours

(Maximum marks : 100)

[*Note* :—1. Question No. II is compulsory.
2. Missing data may be suitably assumed.
3. Drawing shall be neat and fully dimensioned.
4. A2 size drawing sheet to be supplied.]

PART — A

(Maximum marks : 15)

Marks

I Answer the following questions in one or two sentences. Each question carries 1½ marks.

1. Explain the method of arranging views in first angle projection.
2. Enumerate which circumstances for providing a combined footing.
3. Give the standard size of ridge piece and common rafter.
4. Define plinth area.
5. List the classification of building as per NBC.
6. Define key plan.
7. Enumerate off street parking spaces.
8. As per NBC, list the living area of a building.
9. Define a shallow manhole.
10. List the different types of culverts. (10 × 1½ = 15)

PART — B

II (a) Prepare the line plan of Public Library according to N B C and K M B R requirements.

Reference room	=	72 m²
Reading room	=	15.75 m²
Office room	=	36 m²
Binding room	=	36 m²
Toilet	=	12 m²
Stair hall	=	18 m²

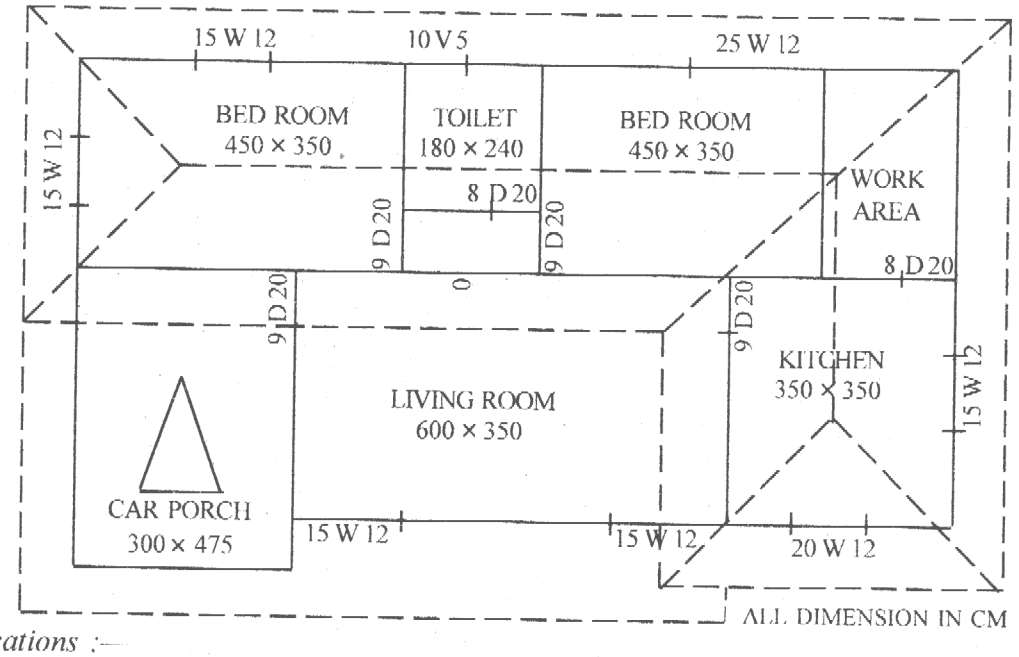
The size of plot 22 m × 26 m. The width of plot facing the road of 6 m wide. 25

Marks

(b) The given line plan shows the layout of a residential building. Develop the fully dimensioned.

(i) Plan 15

(ii) Section along A-A 15



Specifications :—

1. Bed concrete for foundation PCC 1 : 5 : 10, 70 cm × 15 cm.
2. Foundation in RR masonry in CM 1 : 8, 40 cm × 60 cm.
3. Basement RR masonry in CM 1 : 8, 30 cm × 60 cm.
4. Superstructure, brick work 20 cm + K with CM 1 : 6 height - 360 cm.
5. R.C.C. roofing with M20 concrete - height 300 cm thickness of roof slab 10 cm.
6. Provide doors and windows as per requirements.
7. Missing data can be suitably assumed.

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

1. Wall thickness = 30 cm
2. Clear span = 500 cm
3. Collar = 4 × 12.5 cm
4. Ridge piece = 8 × 20 cm
5. Eve projection = 60 cm
6. Wall plate = 15 × 10 cm 15

OR

IV Draw to a suitable scale, the sectional elevation, plan of the top reinforcement and plan of bottom reinforcement of a combined rectangular footing.

Size of footing = 500 cm × 200 cm

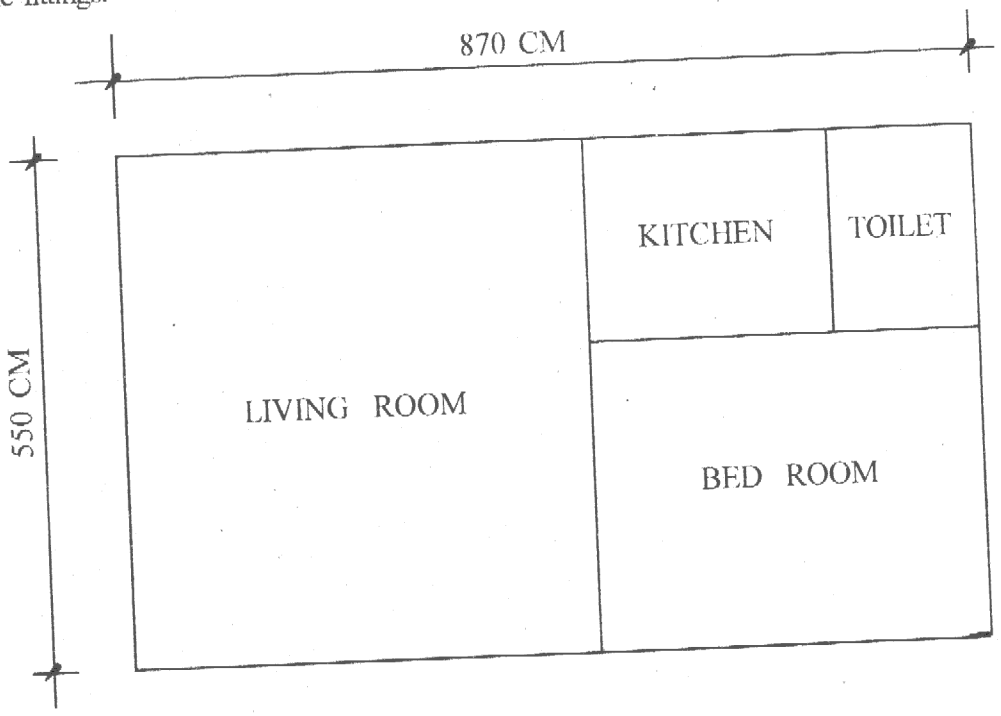
Size of column = 40 cm × 40 cm

Main reinforcement 16 mm dia bars 10 nos. in both direction and distributors 10 mm dia bars.

Missing datas may suitably assumed. 15

Marks

V Draw the electrical service plan of a given figure and denote the symbols for the fittings. 15



OR

VI Prepare a schematic diagram of water supply connection in a residential building. 15