



c09-c-307

**3223**

**BOARD DIPLOMA EXAMINATION, (C-09)  
MARCH/APRIL—2018  
DCE—THIRD SEMESTER EXAMINATION  
CIVIL ENGINEERING DRAWING—I**

Time : 3 hours ]

[ Total Marks : 60

**PART—A**

4×5=20

**Instructions** : (1) Answer **all** questions.

(2) Each question carries **four** marks.

(3) Any missing data may be assumed suitably.

1. Draw the conventional signs for the following materials in sectional elevation :
  - (a) Stone masonry
  - (b) Glass
  - (c) Cement concrete
  - (d) Wood
2. Draw the diagram of a King Post Truss and label its parts.
3. Draw the plan of a doglegged staircase in a room of 2 m 4 5 m with stair width 1 m.
4. Draw the marking plan of a single-roomed building of size 5 m 3 6 m having wall thickness 230 mm and width of foundation 900 mm.

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5. Draw the electrical layout drawing for a hall of 6 m × 4 m with provision for all necessary electrical fittings.

**PART—B**

20×2=40

**Instructions :** (1) Answer **all** questions.

(2) Each question carries twenty marks.

(3) Any missing data may be suitably assumed.

6. From the given line drawing and following specifications of a building, draw to a scale of 1 : 50 the following views : 20

(a) Fully dimensioned plan

(b) Section on *ABCD*

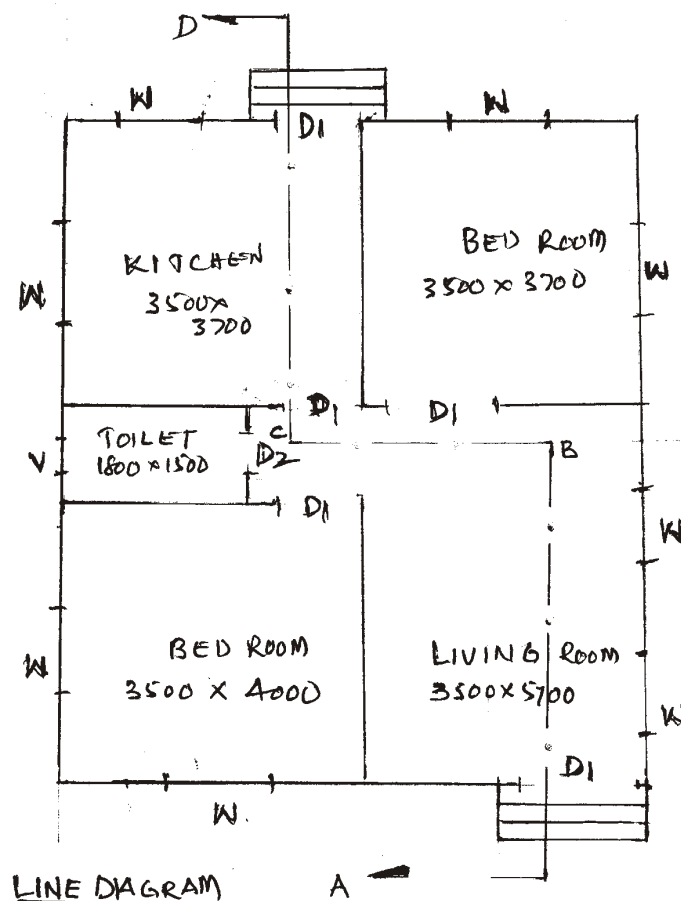
*Specifications :*

- (i) Foundations : The depth of foundation shall be 900 mm below ground level. The plain cement concrete bed in the foundation will be 700 mm wide and 150 mm deep. The footings shall be of brick masonry in CM (1 : 4). Width of first and second footings will be 500 mm and 400 mm respectively, whereas the depth of first and second footings will be 400 mm and 350 mm respectively.
- (ii) Plinth or basement : The height of basement is 450 mm and the thickness of basement wall is 300 mm.
- (iii) Superstructure : All the walls in the superstructure will be 200 mm thick and of brick masonry in CM (1:6).
- (iv) Lintels and sunshades : Lintels with RCC are provided on all openings and depth is 150 mm with a bearing of 200 mm on either side. Sunshades 75 mm thick at the wall face and 50 mm thick at free end are provided projecting from lintels over exterior openings. All the sunshades shall project 600 mm from the face of the wall.
- (v) Height of superstructure : The walls in the superstructure are taken to a height of 3.1 m.
- (vi) Roofing : Roofing consists of RCC slab 120 mm thick.
- (vii) Flooring : Flooring shall be of vitrified tiles of reputed make over cement concrete.

- (viii) Parapet : Parapet 100 mm thick and 600 mm height with brick masonry shall be provided all round the building.
- (ix) Steps : Steps are provided in front side and rear side of length 1000 mm with a tread of 300 mm and rise of 150 mm. These are founded over 150 mm CC bed with 100 mm offset on all sides.

Schedule of doors and windows :

Sl. No.	Numbers	Modular size (in mm)
1	D <sub>1</sub> 5 Nos.	1000 × 2100
2	D <sub>2</sub> 1 No.	900 × 2000
3	W 8 Nos.	1200 × 1500
4	V 1 No.	1000 × 600



7. Draw a line diagram for a rural hospital for 10 beds capacity with all necessary provisions to a scale of 1 : 100. 20

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