



c09-c-307

3223

BOARD DIPLOMA EXAMINATION, (C-09)

SEPTEMBER/OCTOBER - 2020

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 :

- (a) Brick
- (b) Glass
- (c) Ceramic tiles
- (d) Wood

2. Draw the line diagram of queen post truss and label the parts.

3. State the best locations of the following rooms as per the building bye-laws :

- (a) Kitchen
- (b) Bedroom
- (c) Dining room
- (d) Pooja room

- * 4. Draw the electrical layout drawing for a hall of 6 m×4 m with a provision for all necessary electrical fittings.
5. Draw the sectional elevation of a lift shaft for multistoried building.

PART—B

20+20=40

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

(2) The drawing must be to the scale.

(3) Any missing data may be assumed suitably.

6. With the following specifications and given line sketch of a building (in page 3), draw the following views to a scale of 1 : 50 :

- | | |
|----------------------------|----|
| (a) Fully dimensioned plan | 10 |
| (b) Section on A-A | 10 |

Specifications :

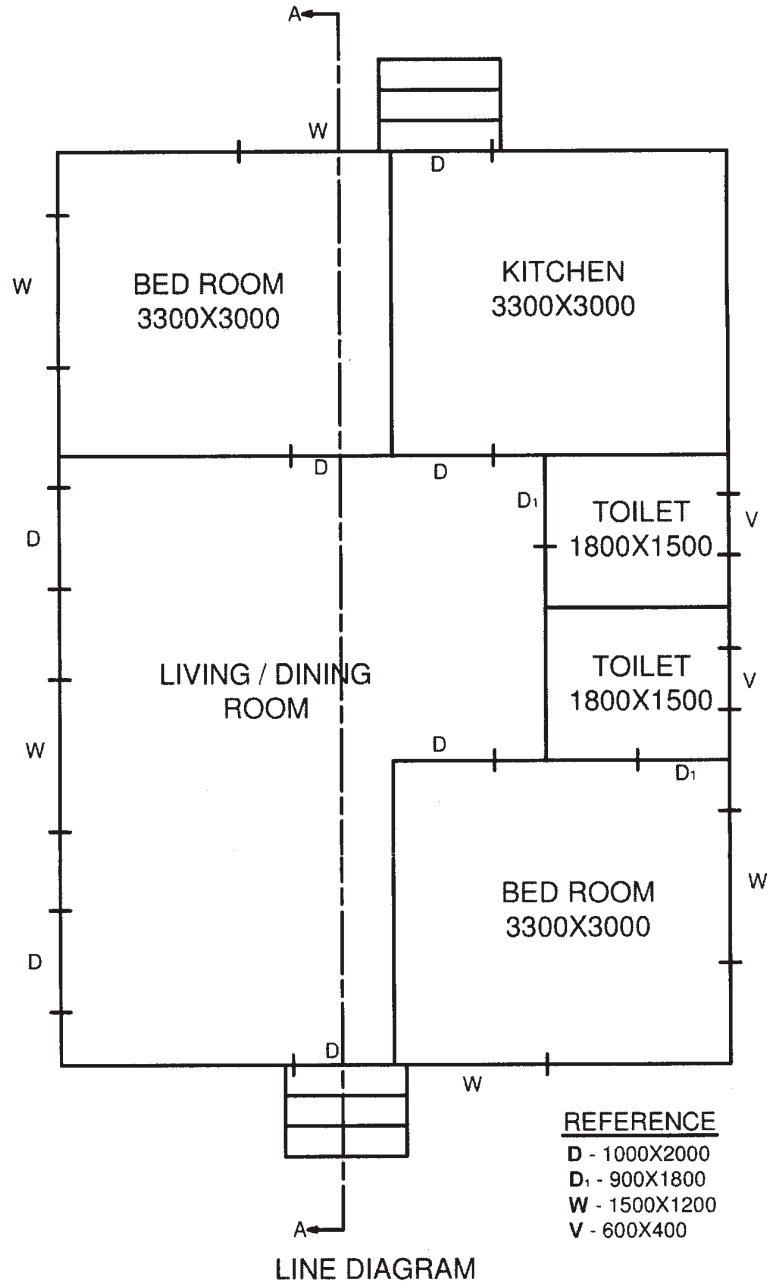
(i) Foundation : Foundations for all the main walls are taken to a depth of 1000 mm below ground level. They consist of CC (1:4:8) bed 800 mm wide and 300 mm deep. The remaining portions consist of two footings 500 mm and 400 mm wide and are 400 mm and 300 mm deep. The footings are of brick masonry in CM (1:4).

* (ii) Basement : All the walls are 300 mm wide and the height of basement is 600 mm above general GL.

(iii) Steps : Steps of 1200 mm wide are provided with brick masonry in CM (1:6) on both front and rear sides and rest on CC bed (1:4:8) 150 mm thick and

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having offset on the three sides equal to 100 mm. Tread of each step = 250 mm and rise 150 mm.



(iv) Superstructure : All the walls are 200 mm thick except partition wall between toilets which is constructed on the floor with thickness of 100 mm. The height of walls is 3300 mm to the bottom of RCC roof slab.

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(v) Lintels and sunshades : RCC (1:2:4) lintels are provided on all openings with 150 mm thickness and 150 mm bearing on either side of opening.

RCC sunshades are provided on all exterior doors, windows and ventilators with 90 mm thickness at wall face and 75 mm thickness at free end. The projection of sunshades beyond the wall surface is 700 mm.

(vi) Roofing : 120 mm thick RCC (1:2:4) slab is provided over entire building.

(vii) Parapet wall : Brick masonry parapet wall in CM (1:6) is of 100 mm thick and 700 mm height. A coping with 50 mm projection is provided at the top of the parapet wall.

(viii) Flooring : Flooring consists of mosaic tiled flooring over 100 mm thick CC bed (1:4:8). The remaining depth of basement is filled with sand and gravel and thoroughly compacted.

7. Draw the line diagram of a hostel for 50 students with all functional requirements to a suitable scale. 20
