

TED (10)–3033

Reg. No.

(REVISION—2010)

Signature

FOURTH SEMESTER DIPLOMA EXAMINATION IN ARCHITECTURE —
MARCH, 2013

WORKING DRAWING - I

[Time : 3 hours

(Maximum marks : 100)

- [Note : 1. Drawings shall be neat and fully dimensioned.
2. Missing data may be suitably assumed.
3. A2 size drawing sheets to be supplied.]

PART—A

(Maximum marks : 10)

Marks

I Answer the following questions in one or two sentences. Each question carries 2 marks.

1. Write the function of foundation.
2. What is a collapsible door ?
3. What is a lift ?
4. Differentiate 'soffit' and 'baluster' in a stair.
5. Differentiate 'steel truss' and 'tubular truss'.

(5×2=10)

PART—B

(Maximum marks : 30)

II Answer *any three* of the following. Each question carries 10 marks.

1. Draw a pile foundation showing arrangement of pile cap, pedestal and column. Draw also the typical reinforcement details for a pile 30 cm diameter.
2. Draw the elevation of a double leafed panelled and glazed door of size 1.10 × 2.10 m and mark the important components.
3. Draw plans of two consecutive courses of rat trap bond in one brick wall and its elevation for a height of 50 cm.
4. Draw the line diagram of plan and elevation of a bifurcated stair.
5. Draw the junction details at the apex of a steel roof truss.

(3×10=30)

PART—C

(Maximum marks : 60)

(Answer *one* full question from each unit. Each question carries 15 marks.)

UNIT—I

- III Draw the sectional elevation and sectional plan showing the full details of reinforcement for a square RCC column resting on a square footing from the data given below :

Column size — 30 cm × 30 cm

Footing size — 1.6 m × 1.6 m

Depth of footing — 50 cm

Column reinforcement 4 nos. 16 mm ϕ

Ties 8 mm ϕ 15 cm c/c

Reinforcement in footing 10 mm ϕ 14 nos.

15

OR

- IV (a) Draw a typical foundation details for steps and wall.
(b) Draw odd and even courses of a T-junction of one brick with one in English bond.

15

UNIT—II

- V The front door of a house is 100 cm × 200 cm with double leaf and fully panelled. Adopting a suitable panelling system, draw the front elevation and sectional plan.

15

OR

- VI Draw the front elevation, sectional plan and cross sectional view of a fully glazed window of size 100 cm × 120 cm. Outer frames 9 cm × 7 cm, panel frames 7 cm × 3 cm. Sash bar 3.5 cm × 3.5 cm. Glass 3 mm thick.

15

UNIT—III

- VII A staircase is needed to connect two floors separated by 3.2m height. The going space available is 4.3 m. Draw a detailed sketch of a dog legged stair of a residential building.

15

OR

- VIII A lift with a capacity of 10 passengers is to be provided to serve an office building having four storeys. Height of floors is 3.6 m. Assuming suitable dimensions, draw the plan of the lift well showing the car, the cross section showing the lift well and machine room.

15

UNIT—IV

- IX Draw the front elevation of a steel truss suitable for a span of 10 m. Mark the different members.

15

OR

- X Draw the details of the following tubular truss connections :

(a) Base connection

(b) Apex connection

(c) Connection of purlin, cleat and rafter.

15