TED (15) – 4187

(REVISION — 2015)

Reg. No. .....

Signature .....

FOURTH SEMESTER DIPLOMA EXAMINATION IN ARCHITECTURE — APRIL, 2017

WORKING DRAWING - I

[*Time* : 3 hours

(Maximum marks : 100)

[*Note* :—1. Drawing shall be neat and fully dimensioned.
2. Missing data can be suitably assumed.
3. A2 size drawing sheet to be provided.]

PART — A

(Maximum marks : 10)

Marks

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

1. Define bond.
2. What is pile ?
3. What is mullion ?
4. Differentiate between rise and riser.
5. State two methods by which the members of a steel truss can be joined.

(5 × 2 = 10)

PART — B

(Maximum marks : 30)

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

1. Draw two consecutive courses of one brick thick wall of English bond.
2. Draw to a suitable scale details of meeting of window frame, panel frame and glass pane in a glazed window.
3. Draw to a suitable scale plan and elevation of a quarter turn stair.
4. Draw to a suitable scale cross section of a stair and mark nosing, tread, riser and baluster.
5. Draw to a suitable scale the detailed elevation of ridge joint of a steel truss.

(3 × 10 = 30)

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Marks

PART — C

(Maximum marks : 60)

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

Unit — I

III Draw the sectional elevation and plan of footing of a R.C.C. column of size 30 cm × 30 cm with footing of size 160 cm × 160 cm and 10 mm dia bars are provided as reinforcement @ 10 cm c/c in both directions in footing. The thickness at the edge of the footing is 20 cm and of the sloping side is 20 cm. The size of P.C.C. levelling course is 180 cm × 180 cm and thickness is 10 cm. Column is provided with 4 nos. of 16 mm dia. bars and 8 mm dia lateral ties @ 15 cm c/c. 15

Or

IV Draw plan and elevation of two consecutive courses of one and half brick thick corner wall of Flemish bond with one end stopped at 110 cm. Draw the elevation up to a height of 80 cm. 15

Unit — II

V Draw to a suitable scale plan and elevation of a double shuttered panelled door of size 100 cm × 200 cm.

Size of door frame — 10 cm × 7 cm.
Style — 8.5 cm × 3.5 cm.
Top rail — 8.5 cm × 3.5 cm.
Lock rail — 15 cm × 3.5 cm.
Mid rail — 9.5 cm × 3.5 cm.
Bottom rail — 15 cm × 3.5 cm.
Panel — 1.6 cm thick. 15

Or

VI Draw to a suitable scale plan and elevation of a fully glazed window of size 100 cm × 120 cm.

Size of window frame — 9 cm × 7 cm.
Panel frame — 7 cm × 3 cm.
Sash bar — 3.5 cm × 3.5 cm.
Grill — 12 mm dia.
Glass panel — 3 mm thick. 15

Unit — III

VII Draw the plan and sectional elevation of passenger lift with a capacity of 10 persons. Size of lift well is 190 cm × 210 cm. The size of lift car is 135 cm × 130 cm. Inside dimensions are given. Lift pit depth is 160 cm. The lift serves 4 floors. The floor to floor height is 360 cm. The size of machine room may be suitably assumed. 15

Or

Marks

VIII Draw the plan and sectional elevation of R.C.C. open well staircase for a double storied institutional building. Size of staircase is 360 cm × 600 cm. The width of stair is 150 cm. The floor to floor height is 360 cm. The reinforcement details are given.

Main bar — 8 mm dia @ 15 cm c/c.
Distributors — 6 mm dia @ 15 cm c/c.
Suspenders — 6 mm dia @ 15 cm c/c. 15

Unit — IV

IX Draw the fully labelled elevation of a typical steel truss having angular sections.

Effective span is 1020 cm.
The wall thickness is 30 cm. 15

Or

X Draw the fully labelled elevation of a typical tubular truss of 1200 cm clear span. The wall thickness is 30 cm. 15