TED (10)–3026 Reg. No. .....

(REVISION—2010) Signature .....

FOURTH/SIXTH SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/ TECHNOLOGY—OCTOBER, 2014

QUANTITY SURVEYING – I

(For IVth Semester CE, EN and WR and for VIth Semester AR)

[*Time* : 3 hours

(Maximum marks : 100)

[*Note* :—1. Missing data may be suitably assumed.

2. Figure on IV page.]

PART—A

(Maximum marks : 10)

Marks

I Answer *all* questions in one or two sentences. Each question carries 2 marks.

1. What is abstract estimate ?
2. Define lead and lift.
3. What is painting co-efficient of fully panelled door for two side painting ?
4. Define plinth area of a building.
5. What is over-head charge ?

(5×2=10)

PART—B

(Maximum marks : 30)

II Answer *any five* questions from the following. Each question carries 6 marks.

1. What are the duties of a quantity surveyor ?
2. Explain lump sum, work charge establishment.
3. What are the different methods of taking out measurements in a building ?
4. What is the quantity of masonry for a well steining around a well having 3m inner diameter, 30cm thick, 2m height ?
5. What is the quantity of coarse aggregate for a road 1km length, 7m width ? Aggregate are spreaded to 12 cm depth and compacted to 8cm.
6. How rate analysing is done for a particular item ?
7. Explain schedule of rate and data book.

(5×6=30)

Marks

PART—C

(Maximum marks : 60)

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

UNIT—I

III The details of a road embankment are as follows :

Formation width is 12 m., side slope 1 : 1, there is no transverse slope for the ground.

Distance in M	0	60	120	180	240	300	360
R.L. of ground	49.4	48.7	49.3	49.1	49.0	48.7	48.4
R.L. of formation	50m	←——Rising gradient 1 in 200——→					

Use prismoidal formula 15

OR

IV (a) Find plinth area of the given building in fig. 1, compute the total cost of the building @ ₹ 9,500/sq.m. 7

(b) Calculate the quantity of R.C.C. for sun shade for the building in fig. 1. 8

UNIT—II

V (a) Find the capacity of reservoir from 20m contour to 50m contour using trapezoidal formula from the following data.

Contour in meters	20	25	30	35	40	45	50
Area in squire meter	850	1100	1800	2400	3700	5600	6900

7

(b) Calculate the quantity of earthwork for the building in figure 1. 8

OR

VI (a) Compute the quantities of brick work in figure 1. 7

(b) Compute the quantity of R.R. masonry in figure 1. 8

UNIT—III

VII (a) Compute area of wall plastering in figure 1. 7

(b) (i) Determine the volume of R.C.C for roof slab in figure 1. 4

(ii) Determine the volume of R.C.C for lintel in figure 1. (Lintel is provided on all walls) 4

OR

VIII (a) Compute the total painting area for doors and windows of building in figure 1. 5

(b) Calculate the quantity of D.P.C. of building as shown in figure 1. 5

(c) Compute the volume of wood work for a door outer frame. Size of the door is 1m × 2.1m. Size of wooden post is 10cm × 7cm. 5

Marks

UNIT—IV

IX Compute the rate for 1m³ brick masonry in cement mortar 1 : 6 :-

Materials

500 numbers of bricks @ ₹ 5100/1000 numbers

0.24 m³ of dry sand @ ₹ 950/m³

58 kg cement @ ₹ 6500/tonne

Labour

0.75 brick mason @ ₹ 600 each

0.35 man @ ₹ 450/each

0.70 woman @ ₹ 375/each

Take lump sum for scaffolding @ ₹ 15/m³

Add 10% contractors profit. 15

OR

X (a) Explain standard data book. 5

(b) Explain incidental charges. 5

(c) Rules for measurement of plastering. 5

FIG. 1

FOUNDATION : R.R. MASONRY.

ROOF SLAB RCC 1:2:4,
10CM THICK.

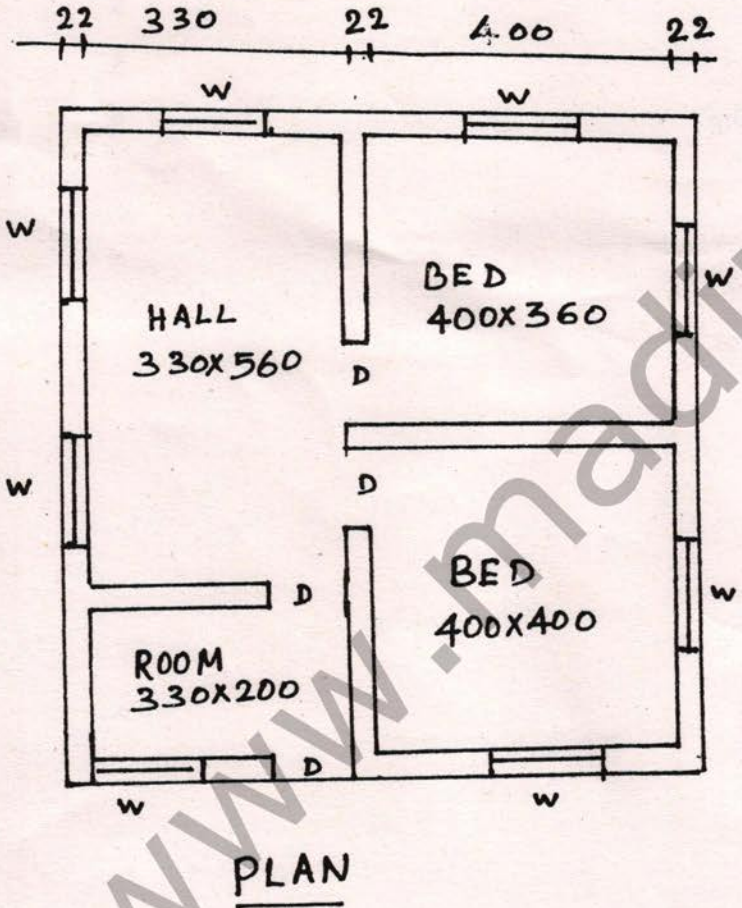
ROOF SLAB PROJECTION 25CM
ALL ROUND

D-DOOR 100X210CM (PANNELED)

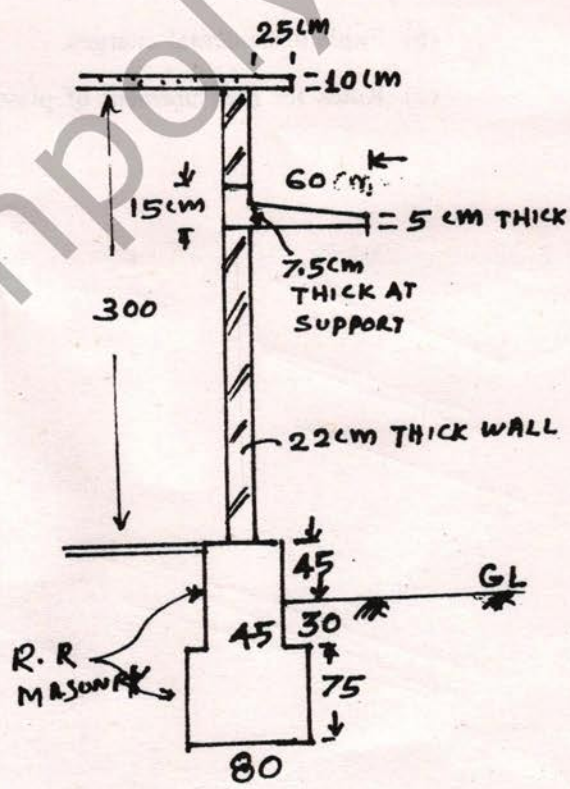
W-WINDOW 150X150CM (GLAZED)

LINTEL 15CM THICK THROUGHOUT

SUNSHADE 60CM WIDTH.
7.5 CM THICK AT SUPPORT
5 CM THICK AT END



PLAN



SECTION