TED (10)–3026 Reg. No. .....

(REVISION—2010) Signature .....

FOURTH/SIXTH SEMESTER DIPLOMA EXAMINATION IN ENGINEERING/ TECHNOLOGY—MARCH, 2013

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. Quantities should be worked out in standard form.
3. Sketch on 4th page.]

Marks

PART—A

(Maximum marks : 10)

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

1. What is an estimate ?
2. Define contingencies.
3. Write the different methods of taking out measurements for detailed estimate.
4. Differentiate between flat and sloped roof.
5. What is conveyance charge ?

(5x2=10)

PART—B

(Maximum marks : 30)

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

1. Explain rough cost estimate.
2. Calculate the number of bricks required for the construction of a compound wall having length 15 m, height 1.2 m and thickness 0.20 m using standard bricks.
3. Calculate the quantity of DPC for the building in figure 1(on 4th page).
4. Figure 2 (on 4th page) shows the line plan of a parapet wall. Calculate the quantity of brick work for the parapet. The height of parapet is 70 cm and thickness 15 cm. Inside dimensions are given in figure.
5. (a) What are the rules for finding out the area of plastering ?
   (b) Write the painting coefficients for panelled door and glazed window.
6. Write the importance of standard data book and standard schedule of rates in quantity surveying.
7. Write short notes on :
   (i) Overhead charge (ii) Lead and lift (iii) Rate at source. (5x6=30)

Marks

PART—C

(Maximum marks : 60)

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

Unit – I

III (a) The details of a road embankment are as follows :

There is no transverse slope for the ground. Formation width is 9 m and side slope 2:1.

Distance in m	0	200	400	600	800	1000	1200	1400	1600	1800	2000
R.L. of Ground (m)	70.00	70.3	70.6	71.1	71.3	72.2	72.5	71.9	72.2	73.2	74.30
R.L. of formation	71 m	← Rising gradient 1 in 500 →									

Calculate the quantity of earthwork using :

(i) Trapezoidal rule

(ii) Prismoidal formula. 12

(b) What is detailed estimate and abstract estimate ? 3

Or

IV (a) Find the approximate cost of the building shown in figure (1) using plinth area method. Assume plinth area rate as ₹ 5,200 per sq.m. 8

(b) Calculate the quantity of earthwork for a road embankment having length 90 m and side slope 2 : 1. The height at the ends of embankment are 0.8 m and 2.4 m. There is no transverse slope. Use prismoidal formula. Formation width is 12 m. 7

Unit – II

V (a) Compute the quantity of brick work in wall of the building shown in figure 1. 10

(b) Calculate the volume of R.C.C. for lintel over the openings. 5

Or

VI (a) Find the capacity of reservoir from 50 m contour to 80m contour using trapezoidal formula from the following data :

Contour in metres	50	55	60	65	70	75	80
Area in sq. m.	1300	2400	3800	4900	6200	8700	9800

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(b) Calculate the quantity of R.R. Masonry in CM 1:8 for the building in figure 1. 8

Unit – III

VII (a) Compute the wall plastering area (inside and outside) of the building in figure 1. 9

(b) Determine the volume of R.C.C. for roof slab for the building in figure 1. Also calculate the quantity of steel (in Kg) for the roof slab. Use 1% steel. 6

Or