Total No. of printed pages = 8

RETEST EXAMINATION – 2019

Semester : 6th (Old)

Subject Code : Cv-601

ESTIMATING – II

Full Marks – 70

Time – Three hours

The figures in the margin indicate full marks
for the questions.

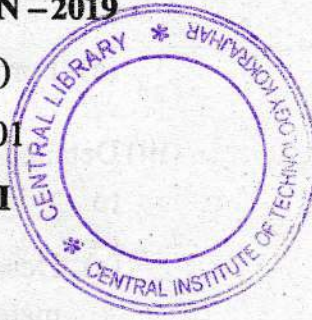Answer both Parts of the question paper.

PART – A

Marks – 25

1. Choose the correct answer from the given options :

    $1 \times 10 = 10$

    (i) The expected out-turn of brick work in super
        structure in ground floor is

        (a) 1.25 cum   (b) 1.5 cum

        (c) 1.10 cum   (d) 2.1 cum

[Turn over

(ii) For Muster roll, the wages of labourers are drawn in

    (a) Form–22   (b) Form–25

    (c) Form–21   (d) Form–25A

(iii) Detailed specification of a work is required to

    (a) Describe the quality and quantity of materials

    (b) Specify the workmanship and method of doing work

    (c) Specify the equipments, tools and plants

    (d) All of the above

(iv) The proposal for administrative approval should be accompanied with the following :

    (a) Preliminary report and rationale

    (b) Plan

    (c) Preliminary estimate

    (d) All of the above

(v) Which of the following does not come under general overheads ?

    (a) Salaries of office staff

    (b) Office telephone bills

    (c) Travelling

    (d) None of the above

(vi) The entries made in a MB should be

    (a) Reliable

    (b) Clear and self-explanatory

    (c) Avoid of double entry

    (d) All of the above

(vii) The contractor has to be deposit _____ % of the estimated cost as earnest money along with his tender.

    (a) 1%   (b) 2%

    (c) 3%   (d) 4%

(viii) How much of water charge is provided in analysis of rates ?

    (a) 1%   (b) 2%

    (c) 10%   (d) 1.5%

(ix) The dry volume of concrete required for 100 sqm of 2.5 cm thick 1 : 2 : 4 DPC is

(a) 2.5 m³ (b) 3.5 m³

(c) 3.58 m³ (d) 3.85 m³

(x) Select the correct statement :

(a) The slope of cutting is generally more than slope of banking.

(b) The end lap in case of fixing of CGI sheets should be at least 30 cm in the length-wise direction.

(c) In case of hand mixing of cement concrete, fine aggregate and coarse aggregate should be mixed before mixing cement.

(d) None of the above.

2. Fill up the gap with appropriate word/words : 1×10=10

(i) The number of sections must be _____ to apply Prismoidal Formula for calculating earth quantity.

(ii) Lift is measured from _____.

(iii) Among the three methods for calculation of earthwork, the _____ method is most accurate.

(iv) Filling is the difference of height between _____ and _____.

(v) The number of bricks of size 22.9 cm × 11.4 cm × 7.6 cm required for a half brick wall of 10 sqm is _____.

(vi) In economical digging, sectional area of excavation is _____ to sectional area of banking.

(vii) Expenses incurred for labour welfare and safety measures comes under the category of _____.

(viii) The extra length required for two hooks of a reinforcement bar is _____ d (d, diameter of bar).

3. Answer in single sentence each : 1×5=5

(i) What is out-turn work of a labour ?

(ii) What is contract agreement ?

(iii) What is balancing depth ?

(iv) What is analysis of rate ?

(v) What is muster roll ?

PART – B

Marks – 45

Answer any *three* questions.

4. (a) Write the detailed specification of the following on any *two* :

    (i) Earthwork in excavation

    (ii) Wood work in door shutters

    (iii) Reinforced cement concrete.

  (b) Analyse the rate of the following on any *two* :   8

    (i) First class brick work in cement mortar (1 : 4)

    (ii) 2.5 cm thick DPC (1 : 2 : 4)

    (iii) White washing 2 coats on a coat to new plaster.

5. (a) Find out the economic depth of a channel from the following data :

Bed width = 4.0m, Full supply level = 501.00m, Bed level = 500.00m, Free board = 0.40m, Side slope in cutting = 1.5 : 1 and side slope in banking = 2 : 1, Top width of bank = 2.0m.   7

  (b) A RCC rectangular beam of size 20 cm × 30 cm with 4.0m overall length is reinforced with Tor Steel bars 3 numbers. 16 mm dia, two outer bars straight and L hooked and the inner bar bent up at 45° at appropriate place with L hooked at ends. At top, two outer hanger bars are 10 mm in dia, straigth and L hooked at ends. Stirrups are 6 mm in dia and spaced at 15 cm centre to centre. Estimate the quantity of reinforcement.   8

6. An irrigation canal has the following details :
Bed width = 4m, Top width of left bank = 3m, Top width of right bank = 1.5m, Side slopes in cutting = 1.5 : 1, Side slopes in banking = 2 : 1, Height of bank from bed = 2.60m, Longitudinal slope of the bed = 1 in 5000, Ground levels at consecutive stations at 50m interval are as under :

Station	1	2	3
GL of RL	100.2	100.41	100.45

Station	4	5	6
GL of RL	100.67	99.89	99.25

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7. Estimate the quantity of earthwork from the following data : 15

Road width = 10m, Side slopes = 1.5 : 1 in cutting and 2 : 1 in banking, Length of chain is 30m.

Chainage	20	21	22	23
RL of GL	71.20	71.25	70.90	71.25
Chainage	24	25	26	27
RL of GL	70.80	70.45	70.20	70.35
Chainage	28	29	30	
RL of GL	69.10	69.45	69.70	

Formation level = 70.00m, Upward gradient 1 in 200.