Code: 13A01701 **R13**

B.Tech IV Year I Semester (R13) Regular Examinations November/December 2016

ESTIMATION, COSTING & VALUATION

(Civil Engineering)

Time: 3 hours Max. Marks: 70

PART – A

(Compulsory Question)

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1 Answer the following: (10 X 02 = 20 Marks)

(a) What are the aims of specifications?
(b) Define revised estimate.
(c) Write the units of measurement in metric system for different items of civil work.
(d) Enumerate the differences between centre line method and Long and short wall method.
(e) Define the terms lead and lift.
(f) What are the factors affecting rate analysis?
(g) Mention the importance of measurement book.
(h) What are the five subheads in rate analysis?
(i) What is muster roll?
(j) Define salvage value.

PART – B

(Answer all five units, 5 X 10 = 50 Marks)

UNIT – I

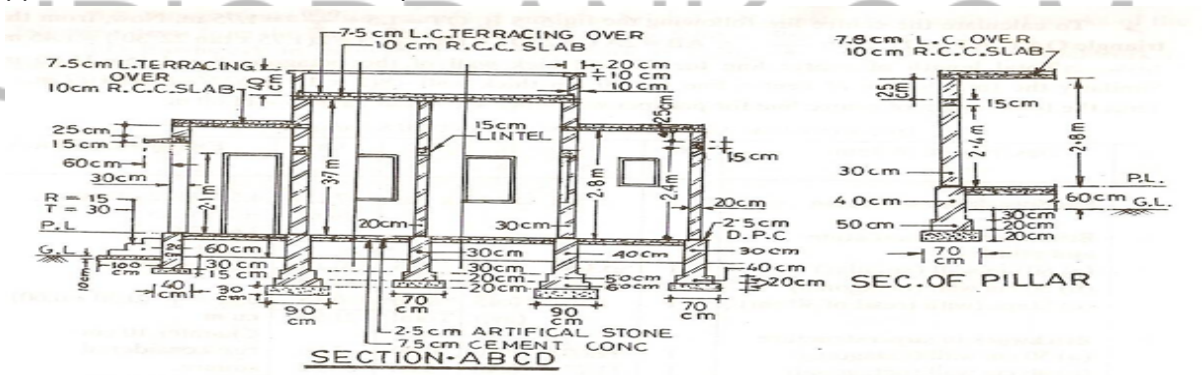
2 Specify the general rules to be followed while doing the measurement of works, in detail. Give the measurements of Earth work.

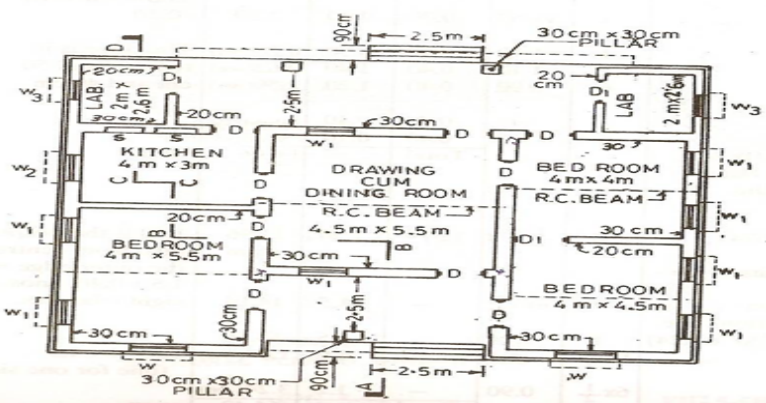
OR

3 Explain the different methods for estimating building works.

UNIT – II

4 Work out the quantities for the following items for figure shown below: (i) Earth work excavation. (ii) Brick work in foundation and plinth.



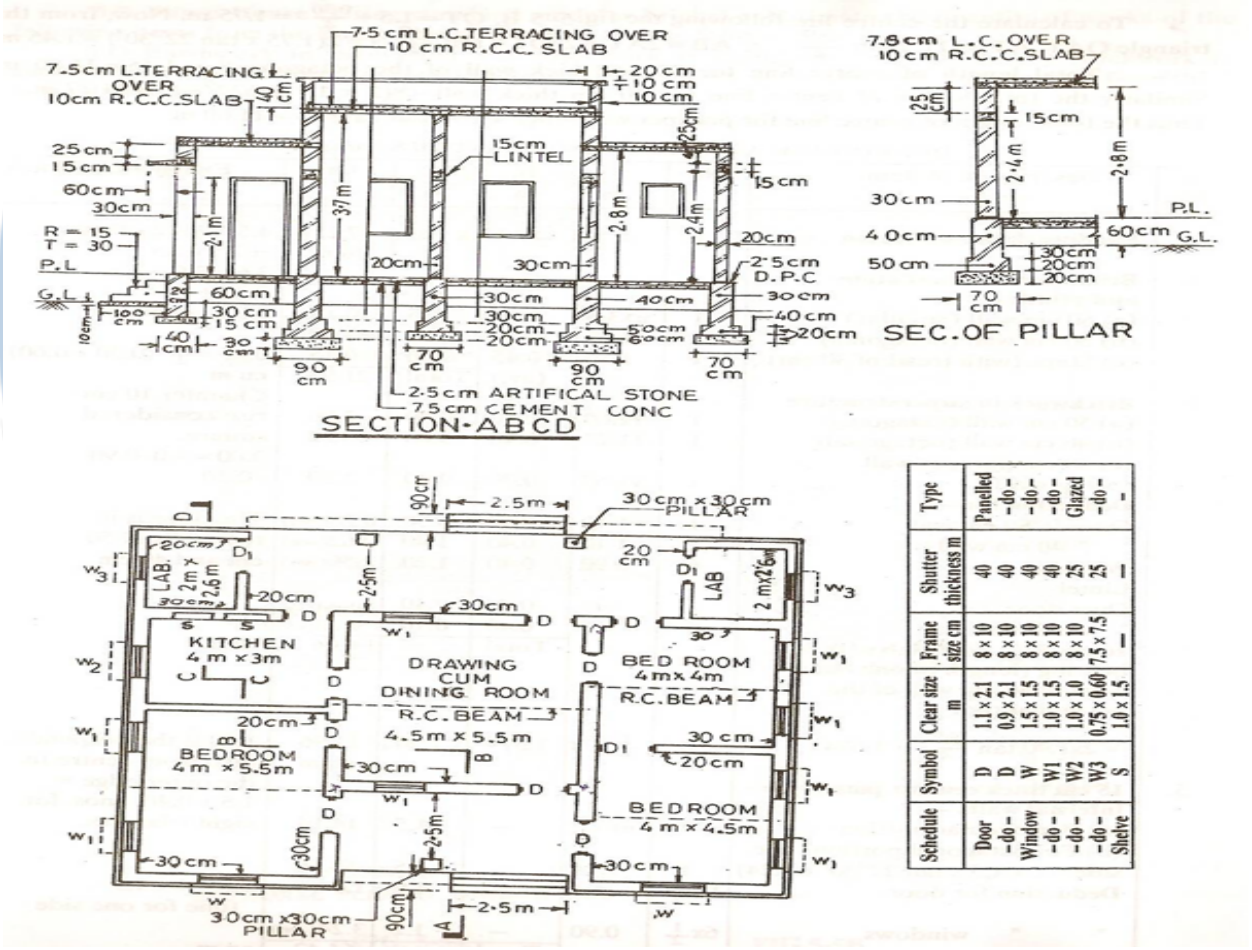


Schedule	Symbol	Clear size m	Frame size cm	Shutter thickness m	Type
Door	D	1.1 x 2.1	8 x 10	40	Panelled
-do-	D	0.9 x 2.1	8 x 10	40	-do-
Window	W	1.5 x 1.5	8 x 10	40	-do-
-do-	W1	1.0 x 1.5	8 x 10	40	-do-
-do-	W2	1.0 x 1.0	8 x 10	25	Glazed
-do-	W3	0.75 x 0.60	7.5 x 7.5	25	-do-
Shelve	S	1.0 x 1.5	—	—	-

OR

Contd. in page 2

5 Estimate the quantities for the following items for figure shown below: (i) I class brick work in superstructure. (ii) RCC (1:2:4) excluding bending but including centering.



UNIT – III

6 Prepare an estimate for the portion of a road from chainage 14 to 22 m from the data given below. The formation width of the proposed road is 12 m, side slopes 1 ½:1 in cutting and 2:1 in banking.

Chainage (30 m)	14	15	16	17	18	19	20	21	22
RL of Ground	108.60	109.25	109.40	108.85	108.50	107.25	106.80	107.15	107.20

OR

7 A canal with side slopes 1.5:1 and bed width 3.5 m with water depth of 0.6 m is carried in full embankment. The side slopes of the embankment are 1.5:1 on both sides and the bank widths are 3.3 m and 1.8 m on the left and right sides respectively. The G.L. for a length of 600 m are tabulated below. The canal bed level at chainage of 1000 m is 208.900 m and bed slope of canal is 1 in 5000. Estimate the quantity of earth work in embankment, Take free board of canal as 0.45 m.

Chain age(m)	1000	1100	1200	1300	1400	1500	1600
RL of ground	208.9	208.75	208.6	208.5	208.5	208.4	208.35

UNIT – IV

8 Discuss in detail about requirement of tendering.

OR

9 Write short notes on contracts and types of contracts.

UNIT – V

10 What do you mean by valuation and explain various purposes of valuation?

OR

11 Calculate the rate analysis for 40 mm thick glazed window of Indian teak wood.

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