

**B.TECH. SEM -VI (CIVIL) 2014 COURSE (CBCS) : SUMMER -
2018**

SUBJECT : ESTIMATING COSTING & VALUATION

Day : **Wednesday**
Date : **06/06/2018**

S-2018-2396

Time : **02.30 PM TO 06.30 PM**
Max. Marks : 60

N. B. :

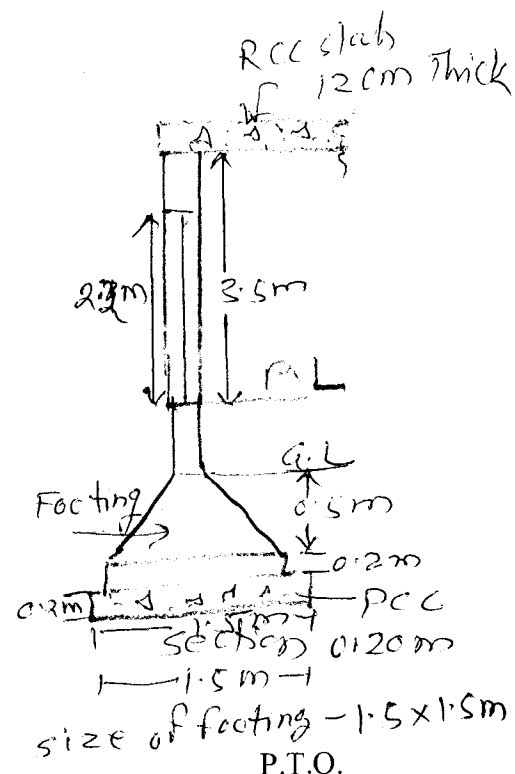
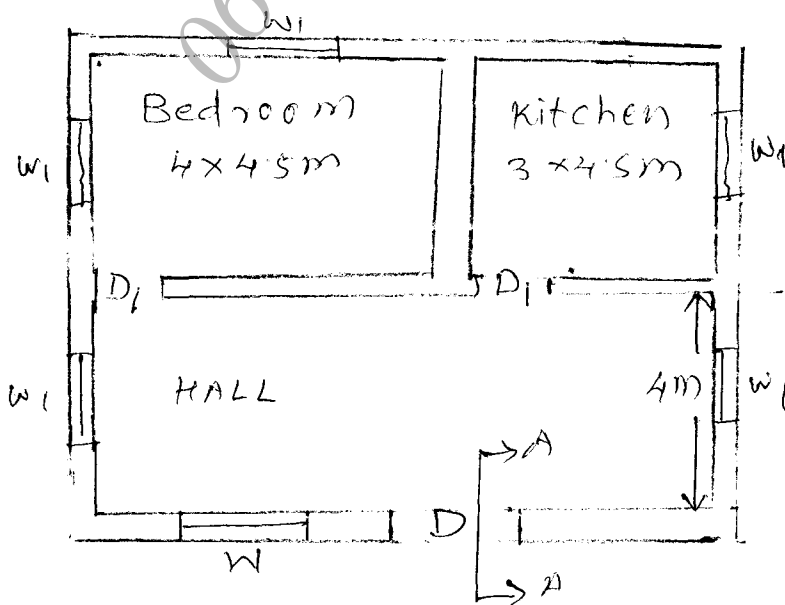
- 1) All questions are **COMPULSORY**.
- 2) Figures to the right indicate **FULL** marks.
- 3) Use of electronic pocket **Calculator** is **allowed**.
- 4) Assume suitable data if necessary.

- Q.1 a)** Explain the following terms : **(06)**
- i) Provisional and prime cost items
 - ii) contingencies
- b)** Enlist different types of estimate and explain supplementary estimate and revised estimate. **(04)**

OR

- Q.1 a)** Explain the following terms : **(06)**
- i) DSR
 - ii) Work charged establishment
 - iii) Centage charges
- b)** Give the units of measurement of following items : **(04)**
- i) Sand faced plastering
 - ii) Concrete for footing
 - iii) Steel reinforcement
 - iv) Formwork
 - v) Electrical fitting
 - vi) Water closet
 - vii) Oil painting for doors
 - viii) Internal walls (BBM)

- Q.2** Find out the quantities of following items by centre line method from given **(10)**
plan and section
- a) Earthwork in excavation
 - b) Brick masonry in 1:6 C.M. in super structure
 - c) Internal plastering in 1:4 cement mortar
 - d) Slab in roof



All walls 0.30 m thick
 $D - 1.5 \text{ m} \times 2.2 \text{ m}$ $W - 1.5 \text{ m} \times 1.2 \text{ m}$
 $D_i - 1.2 \text{ m} \times 2.1 \text{ m}$ $W_i - 1.2 \text{ m} \times 1.2 \text{ m}$

P.T.O.

OR

- Q. 2** The RCC beam is supported on 300 mm thick wall. The clear span of the beam is 7m. the other detail of beam are as following : (10)
Size of beam 300 x 550 mm
Main bottom steel – 16 mm diameter 2 Nos.
Bentup bars – 12 mm diameter 2 Nos.
Top bars – 8 mm diameter 2 Nos.
Stirrups - 6 mm diameter at 120 mm c/c
All stirrups are at Centre to centre for full length of beam. Find quantities of concrete steel and prepare bar bending schedule.

- Q. 3 a)** Determine the rate per unit for the item of U.C.R. masonry in 1:6 cement mortar in superstructure. Using following material rates. Also assume necessary data if required. (08)
Rubble – Rs. 700/- per cum
Sand – 1700/- per cum
Cement – 300/- per bag
Mazdoor – Rs. 400 per day
Mason – Rs. 700/- per day
Head mason – Rs. 1000/- per day

- b)** What is rate analysis? Explain the purpose of rate analysis. (02)

OR

- Q.3** Calculate the quantity of earthwork in a tabular form for a portion of a road (10)
from the following data :
Side slopes 2:1 in banking and 1.5:1 in cutting formation width of the road is 10 m levels have taken every 30 m apart

Distance (m)	100	130	160	190	210	240	270	300	330	360
R.L. of ground	117.30	138.35	138.20	137.65	138	137.20				
						135.30	135.10	133.95	136.80	136.15

R. L. of formation 139.00 m and in a downward gradient of 1 in 200.

- Q. 4 a)** In a plot of land costing Rs. 5,00,000 a building has been newly constructed at a total cost of Rs. 70,00,000 including sanitary and water supply works the building consists of four flats. The owner expect 10 percent return on the cost of construction and 7 percent return on cost of land. Calculate the standard rent for each flat of the building assuming : (07)
i) Life the building as 65 years and sinking fund will be created on 4 % interest basis.
ii) Annual repair cost at 1% of cost of construction.
iii) Outgoings including taxes at 30 % of the net return on the building.
- b)** Define value, cost and price. (03)

OR

- Q.4 a)** Enlist different methods of valuation and explain any one in detail. (05)
- b)** What are the methods of depreciation? Explain straight line method with suitable example. (05)

- Q. 5** a) State merits and demerits of prequalification of contractors. (05)
- b) Explain the term : (05)
- i) Administrative approval
 - ii) Technical sanction

OR

- Q. 5** a) Explain method of inviting tender. (05)
- b) Write note on : Registration of contractor (05)

- Q. 6** a) Discuss in brief essential requirements of valid contract. (05)
- b) State four qualities of good arbitrator. Discuss the powers of an arbitrator. (05)

OR

- Q. 6** a) Explain necessity of earnest money and security deposit. (05)
- b) What is the meaning of arbitration? Discuss various types of arbitration. (05)

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