Reg. No:

SIDDHARTH INSTITUTE OF ENGINEERING & TECHNOLOGY:: PUTTUR
(AUTONOMOUS)
B.Tech IV Year I Semester Regular &Supplementary Examinations Feb-2021
ESTIMATION, COSTING AND VALUATION
(Civil Engineering)

Time: 3 hours   Max. Marks: 60

(Answer all Five Units **5 x 12 = 60** Marks)
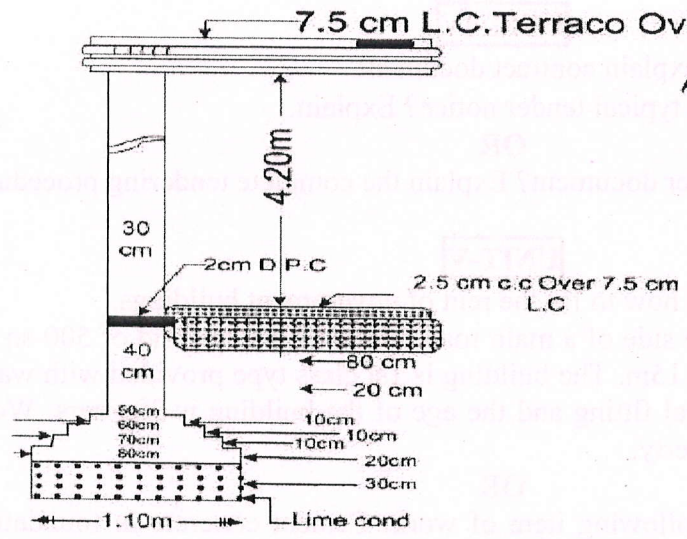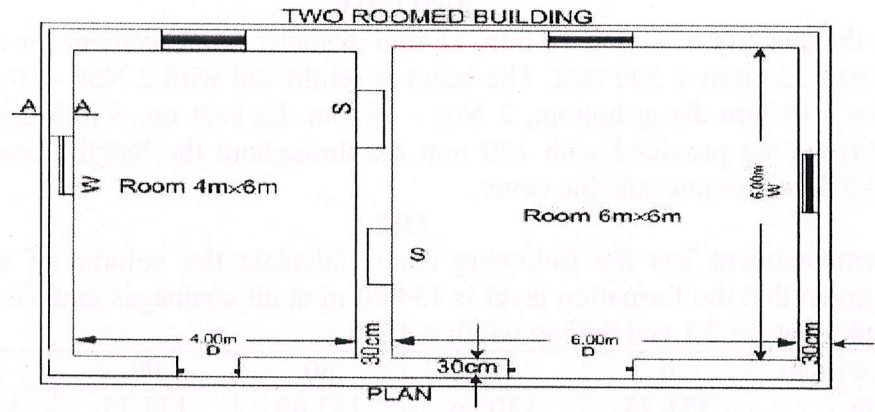
UNIT-I

1   Explain the following general items of work involved in the estimation for a building   **12M**
(i) RCC Works (ii) Floor Finishes with Ceramic Tiles and Marbles (iii) Plastering and Pointing .

OR

2   Explain about the approximate method of estimation. And also tell where it is used.   **12M**

UNIT-II

3   Calculate the quantities of the following items for the building shown in fig using Long   **12M**
wall and short wall method (i) Earth work in excavation, (ii) Brick work in foundation
and plinth (iii) PCC (1: 5: 10) below the foundation, (iv) Damp Proof Course
(v) Brick masonry in CM (1:6) for super structure.

TWO ROOMED BUILDING

Room 4m×6m

Room 6m×6m

PLAN

7.5 cm L.C.Terraco Over 13cm R.C.C.

4.20m

All Walls are of same section
Lintels over Doors.
Windows and Shelves are
15 cm thick R.B.

30 cm

2cm D P.C

2.5 cm c.c Over 7.5 cm L.C

40 cm

80 cm

20 cm

50cm
60cm
70cm
80cm

10cm
10cm 10cm
20cm
30cm

1.10m

Lime cond

Doors D.1.20 m × 2.10m
Windows W-1.00×1.50m
Shelves 8-1.00m×1.50m

OR

4 Calculate the quantities of the following items for the building shown in fig using Centre line method. (i) Earth work in excavation, (ii) Brick work in foundation and plinth (iii) PCC (1: 5: 10) below the foundation , (iv) Damp Proof Course (v)Brick masonry in CM (1:6) for super structure.   **12M**
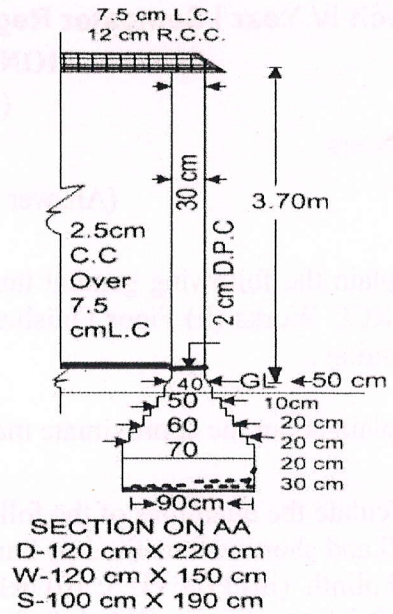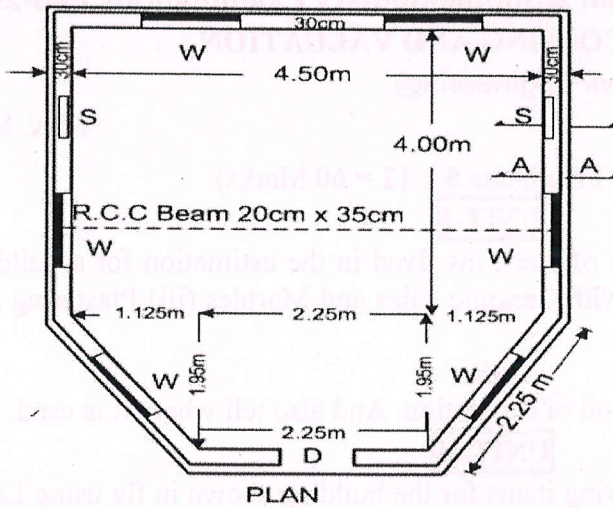

PLAN

SECTION ON AA
D-120 cm X 220 cm
W-120 cm X 150 cm
S-100 cm X 190 cm

UNIT-III

5 Workout the quantity of 6 mm, 10 mm, 16 mm diameter reinforcement for rectangular beam of size 230 mm x 500 mm. The beam is reinforced with 2 Nos - 10 mm dia at top, 2 Nos - 16 mm dia at bottom, 2 Nos - 16 mm dia bent up. 6 mm diameter two legged stirrups are provided with 150 mm c/c throughout the length. Length of the beam is 4.5 5 m. Assume suitable cover.   **12M**

OR

6 A road embankment has the following data: Calculate the volume of earth work required given that the formation level is 134.00 m at all chainages and side slopes of the embankment are 2:1 and the top width is 15 m.   **12M**

Chainage in m	0	30	60	90	120
G.L in m	131.75	130.96	132.60	133.35	133.50

UNIT-IV

7 a Define contract and briefly explain contract document.   **6M**
  b What are the particulars of a typical tender notice? Explain.   **6M**

OR

8 What are the contents of a tender document? Explain the complete tendering procedure with illustrations.   **12M**

UNIT-V

9 a Explain about Mortgage and how to fix the rent of government buildings.   **4M**
  b A building is situated by the side of a main road of Anantapur on land of 500 sq m. The built up portion is 20 X 15m. The building is 1st class type provided with water supply, sanitary and electrical fitting and the age of the building is 30 years. Work out the valuation of the property.   **8M**

OR

10 Prepare rate analysis for the following item of work: Cement concrete in foundation 1:4:8 - unit 1 cu.m Assume materials and labour in the market rate.   **12M**

*** END ***