Code No.: **30129/40128** | **MR13 & MR14**

MALLA REDDY ENGINEERING COLLEGE (AUTONOMOUS)

(Affiliated to JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD)
Gundlapochampally (H), Maisammaguda (V), Medchal (M), Medchal-Malkajgiri (Dist), Hyderabad

IV B.TECH I SEMESTER SUPPLEMENTARY EXAMINATIONS, APRIL-2018

Branch: **CE**

Subject: **Estimating & Costing**

Time: 3 hours **Max. Marks: 75**

PART-A

I. Answer all the questions **5 x1=5M**

1. Write the units for (a) Sanitary fittings and (b) Cement plastering.
2. State the methods of building estimate.
3. What is meant by cutting?
4. Define cost at source.
5. Define years purchase.

II Answer all the questions **10 x 2=20M**

1. Give the Unit Of Measurement for The Following Items
   a) Steel b) Earth work in filling
   c) Cement concrete d) White washing
2. Write the tabulate for the detailed estimate.
3. Write a short note on centre line method.
4. Find the area of white washing on an equilateral triangular wall of side 4m.
5. List out various methods used for the estimation of the earthwork in roads.
6. Write different methods for finding earthwork and write tabular column for any one of the methods.
7. What is the purpose of rate analysis?
8. What is lead statement?
9. Write the requirements of contract.
10. Explain Item Rate and Lumpsum contract methods.

PART-B

Answer all the questions **5 x 10=50M**

1. Describe the methods of preparation of approximate estimate. (10M)

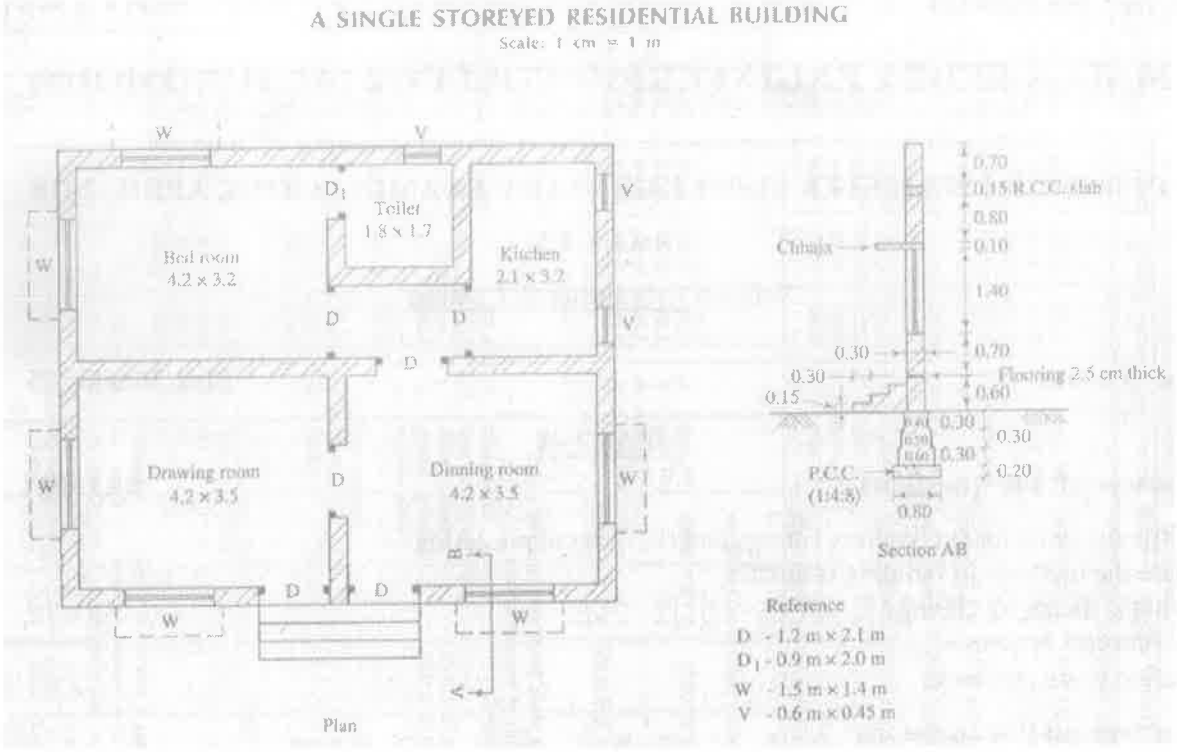
(OR)

2. Write a short notes on the following items of work. (10M)
   a) PCC b) Painting c) Flooring d) Earthwork e) Jungle clearance

3. Prepare an estimate of the following items of residential building shown if Fig.1 below

Excavation for foundation	(2M)
Sand filling in plinth	(2M)
PCC (1:4:8) for foundation	(2M)
First class brick masonry in c.m (1:6) up to plinth	(2M)
First class brick masonry in c.m (1:6) in super structure.	(2M)

Fig.1



(OR)

4. Estimate a two way slab 5m x 4.5 m clear span has the following details of reinforcement and data. (10M)
   i) Thickness of slab =130mm
   ii) bearing over 20cm thick walls=150mm
   iii) main reinforcemnt
      a) Middle strip along long and short span =10mm @ 115 mm c/c. Alternately bent at 800mm from support.
      b) Edge strip along long span = 10mm @ 230mm c/c
   iv) corner mesh both at top and bottom= 10 mm @ 90mm c/c.
   Assume any necessary data.

5. Determine the quantity of earthwork for a portion of a road from the following data: (10M)

Distance (m)	0	100	200	300	400	500	600
R.L. of ground (m)	102.50	102.75	103.25	103.20	104.10	104.85	106
R.L. of formation	103 upward gradient 1 in 200						

Formation width of the road is 10 m, with slope 2:1 in banking and 1.5:1 in cutting

(OR)

6. a) Explain in detail the following with examples: (3+3+4)
   i. Mid sectional Area ii. Mean sectional Area iii. Prismoidal formula method

7. Prepare analysis of rates for 1st class brick work for super structure with 20×10×10 cm bricks with 1:6cement sand mortar per 1 cubic meter. Following rates may be adopted
   a) Cement Rs 250/- per 50kg b) Sand Rs 800/- per cum c) Brick Rs 20/- per one brick
   d) Mason Rs 200 /- per day e) Male mazdoor Rs 250/- per day f) Female mazdoor Rs 200/- per day

(OR)

8. a) Explain in brief the factors effecting the analysis of rates. (5M)
   b) Write a short notes on overhead costs. (5M)

9. a) Define depreciation? Explain various methods to calculate depreciation? (5M)
   b) List the different methods used valuation of building. (5M)

(OR)

10. Write the general specifications for the given items of work. (4+4+3=10M)
    a) DPC of 25mm thick b) Painting doors and windows. c) PCC bed in foundation.