

1137**Code : 15CE53T***Register
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V Semester Diploma Examination, Nov./Dec.-2018**ESTIMATING & COSTING****Time : 3 Hours]****[Max. Marks : 100**

- Note :** (i) Missing data, if any may be suitably assumed.
(ii) Answer all the parts.

PART - A

1. Answer any **one** from the following :
 - (a) What is an Estimate ? What are its types ? Explain any one in briefly. **10**
 - (b) Explain the following : **10**
 - (i) Schedule of rates
 - (ii) Work charged Establishment.
2. Write the detailed specification for any **one** of the following :
 - (a) 1st class brick work in C.M. 1 : 6 for super structure. **10**
 - (b) Plastering in C.M. 1 : 6 & wood work for door & window frames. **10**
3. Prepare Rate analysis for any **one** of the following :
 - (a) Earthwork excavation & filling. **10**
 - (b) Vitrified floor tiles of size 60 cm × 60 cm laid on 20 mm thick cement mortar 1 : 4. **10**

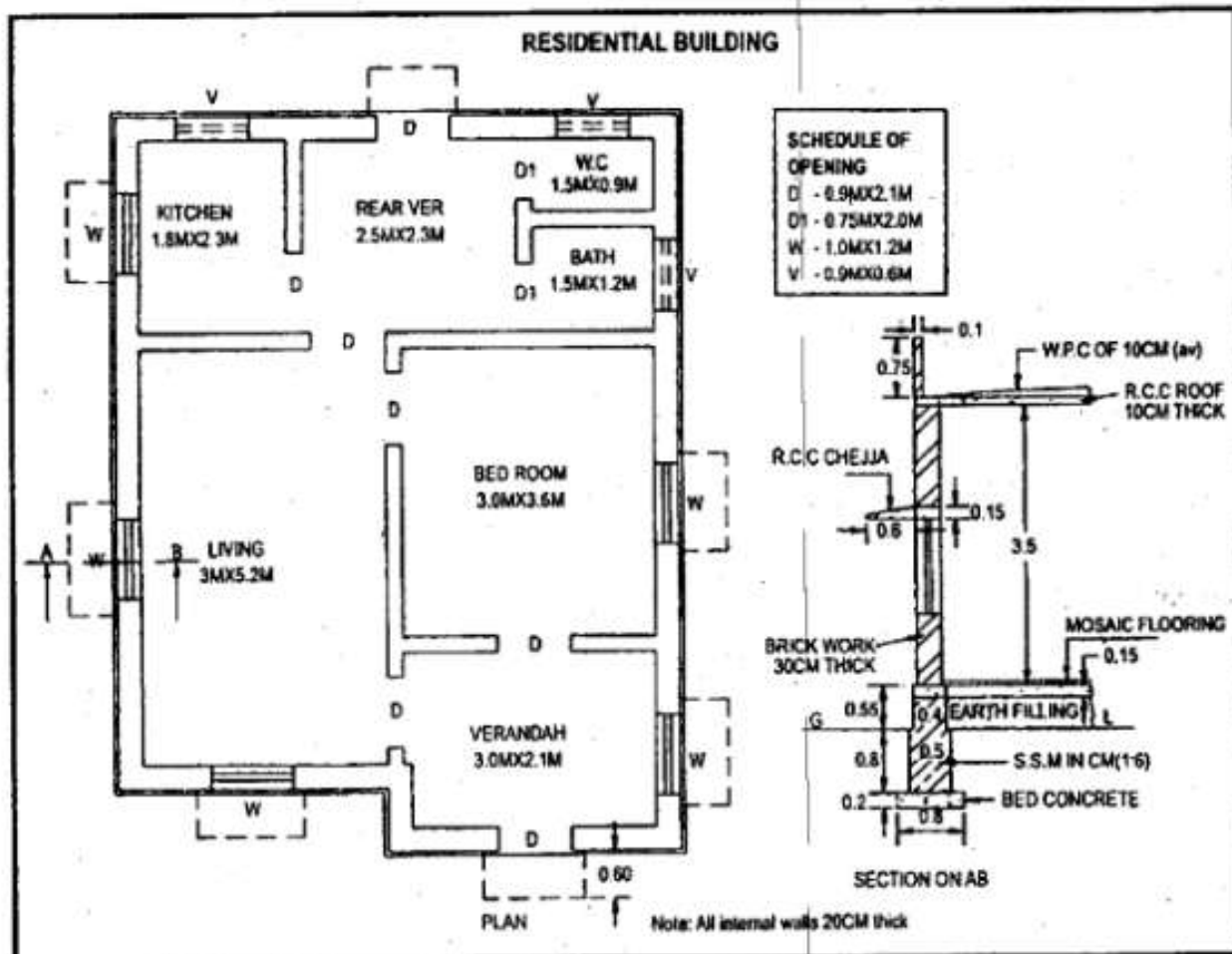
PART - B

4. (a) List the points to be kept in mind for opening deduction while doing external plastering. **5**
- (b) Explain the method of taking out the quantities by long wall & short wall method. **5**

- (c) Prepare detailed and abstract estimate for the following items given below by any method for the building shown in Fig. 1.

$$10 \times 4 = 40$$

- (i) S.S.M. in C.M. 1 : 6 @ ₹ 3890 / cu.m.
- (ii) First class brick work in C.M. 1 : 6 for super structure @ ₹ 3680/cu.m.
- (iii) R.C.C. works 1 : 2 : 4 for slab, assume steel @ 1.5% R.C.C. works @ ₹ 4214/cu.m. & Steel @ ₹ 45000/MT.
- (iv) Enamel painting to doors, windows and ventilators @ ₹ 65/sq.m.



All Dimensions are in metre.

Fig. 1

PART - C

5. Prepare a detailed estimate for earthwork for a portion of a road from the following data :

Rate of earthwork in excavation ₹ 120 / cu.m. & banking is ₹ 90 / cu.m.

Distance in 'm'	0	100	200	300	400	500	600	700	800	900	1000	1100
R.L. of ground	114.5	114.75	115.25	115.20	116.10	118	117.85	118.25	118.1	117.8	117.75	117.90
R.L. of formation	115	115	upward gradient 1 in 200						Downward gradient of 1 in 400.			

The width of formation is 10 m and side slopes $1\frac{1}{2} : 1$ in cutting and $2 : 1$ in banking. 20

OR

Estimate the cost for the following items of the work for the concrete road measuring 4 m wide & 1 km length as shown in Fig. 2.

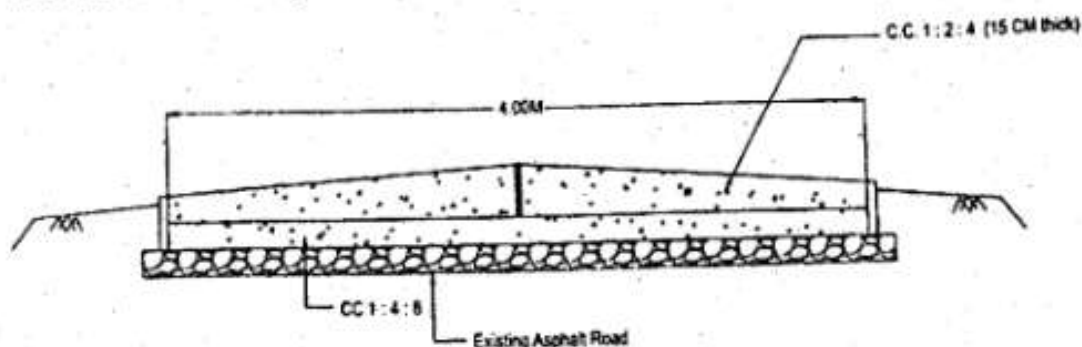


Fig. 2

- Cement concrete 1 : 4 : 8 using 40 mm size granite filling for depression filling & levelling the existing asphalt road (Take 0.25 m^3 for 100 sq. m.) The rate ₹ 2800/ m^3 .
- Cement concrete 1 : 2 : 4 using 12.5 mm size & 25 to 40 mm size in ratio of 1 : 2 for wearing coat at rate ₹ 3900/ m^3 .
- Expansion joints filler with fiber coats for longitudinal & transverse joints 12 mm wide and 10 cm deep (Take the transverse joints at 10 m apart) at rate ₹ 30/m.