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V Semester Diploma Examination, April/May-2018

ESTIMATING AND COSTING

Time : 3 Hours]

[Max. Marks : 100

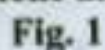
- Instructions :** (i) Answer all the questions.
(ii) Assume missing data (if any) suitably.

PART - A

- Answer any **one** from the following : **10 × 1 = 10**
 - Define estimate. List the purposes for which an estimate is prepared. Briefly explain revised estimate.
 - Differentiate between plinth area estimate and supplementary estimate. Write the units of measurements for the following :
 - Wooden frames for doors and windows
 - Skirting
 - Damp proof course 5 cm thick
 - Lime rendering
 - Earthwork fitting to the foundation
- Write the detailed specification (any **one**). **10 × 1 = 10**
 - First class brick work for super structure and distempering.
 - Granite flooring and wood work for doors and windows.
- Prepare rate analysis for any **one** of the following : **10 × 1 = 10**
 - Plastering with cement mortar in CM 1 : 6.
 - Corrugated galvanized iron sheet – roofing.

PART - B

- Prepare detailed and abstract estimate for the following items of work for the building shown in fig. (1). (By any method) **50**
 - CC 1 : 4 : 8 for bed concrete @ ₹ 1,850/m³.
 - S.S.M. in CM for 1 : 6 for foundation and plinth @ ₹ 1,650/m³.
 - 1st class brick work for superstructure @ ₹ 2,100/ m³.
 - R.C.C. work with 1% steel reinforcement @ ₹ 3,500/m³ and steel @ ₹ 4500/MT
 - Internal plastering in C.M. 1 : 6 @ ₹ 180/m².



PART - C

5. Estimate the quantity of earthwork for a portion of road from the following data : 20

Station	1	2	3	4	5	6	7	8	9	10
Distance in metre	0	40	80	120	160	200	240	280	320	360
R.L. of Ground	51.00	50.9	50.50	50.80	50.60	50.70	51.20	51.40	51.30	51.00
R.L. of formation	52.00	Downward gradient of 1 : 200								

The width of foundation is 10 mts. Side slopes are 2 : 1 in banking and $1\frac{1}{2}$: 1 cutting.

OR

Estimate the quantities of the following items of work from the cross-section shown in below (figure 2) for 1 km length of road.

- Earthwork in embankment.
- Gr-II metalling
- Gr-III metalling
- Painting first coat with tar
- Painting second coat with asphalt.

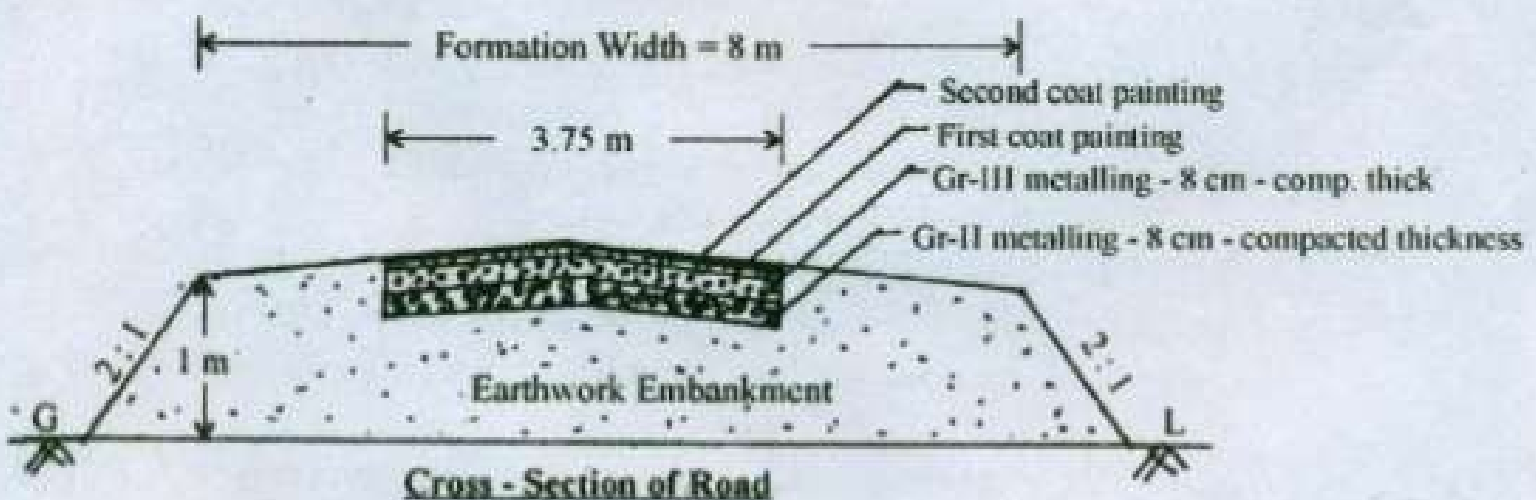


Fig. 2