

GANPAT UNIVERSITY

B.Tech. Semester VI (Civil), Regular Examination – May / June: 2012

C-604: Estimating and Costing

Max. Time: 3 Hours

Max. Marks: 70

Exam. No. of the candidate: _____

- Instructions: -**
- (1) Answer to the two sections must be written in separate answer books.
 - (2) Figures to the right indicate full marks.
 - (3) Assume suitable data if required.

Section - I

Q.1 Attempt any Two. (12)

- (A) Which factor is to be considered during preparation of detail estimation?
- (B) Define the term 'abstract cost', 'billing'. what is the difference between prime cost and provisional sum?
- (C) Write short note on "Factors influencing the cost of transport".

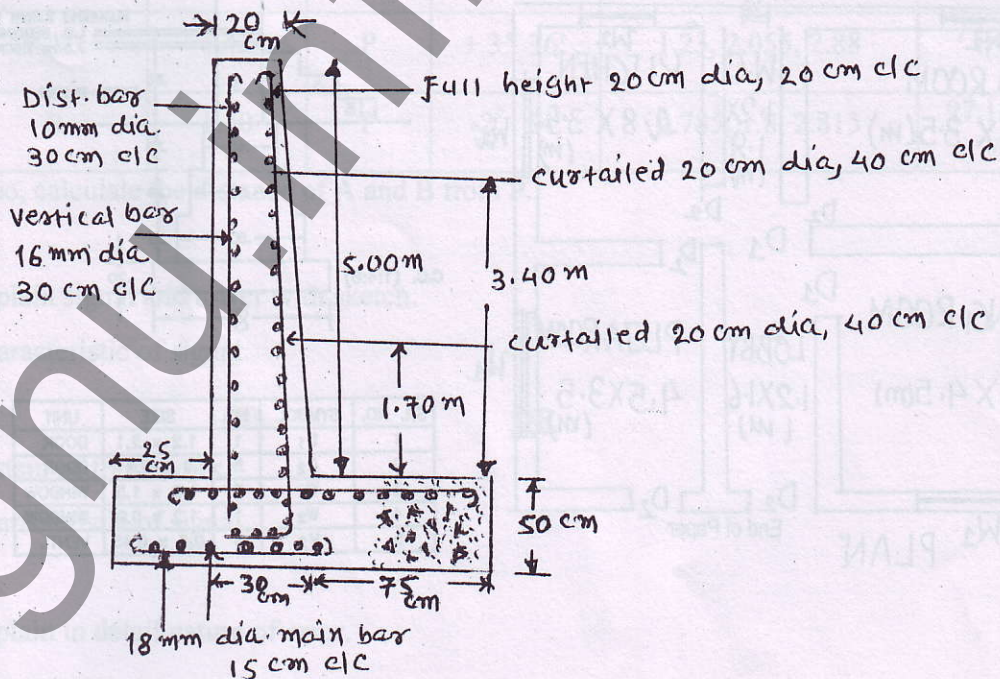
Q.2 (A) Explain in detail with neat sketch 'cross section of mettle road with necessary layers' (6)

(B) Write a note on 'Principle of units of various items of works'. (6)

OR

Q.2 (A) Discuss different cases for finding out earth work of Irrigation Canal (6)

(B) Prepare an estimate for steel work of RCC retaining wall shown below (6)



- Q.3** Prepare detailed estimate and L-section for earthwork for a portion of a road from the following data. RL of formation 120m. Upward gradient of formation level is 1 in 300 from 20th to 26th chainage and downward gradient of 1 in 200 for remaining chainage length. Formation width of a road is 10 m, side slope 2:1 in banking and 1.5:1 in cutting. Adopt rates for banking and cutting as 45 Rs./Cum. and 40 Rs/Cum. Chain length is 30 m. (11)

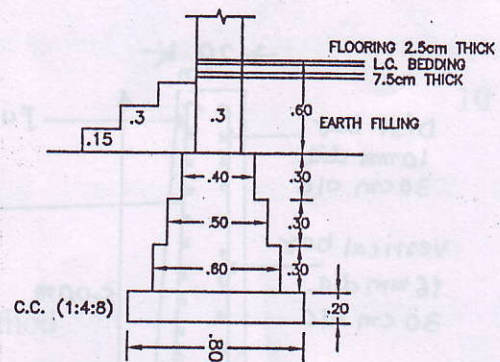
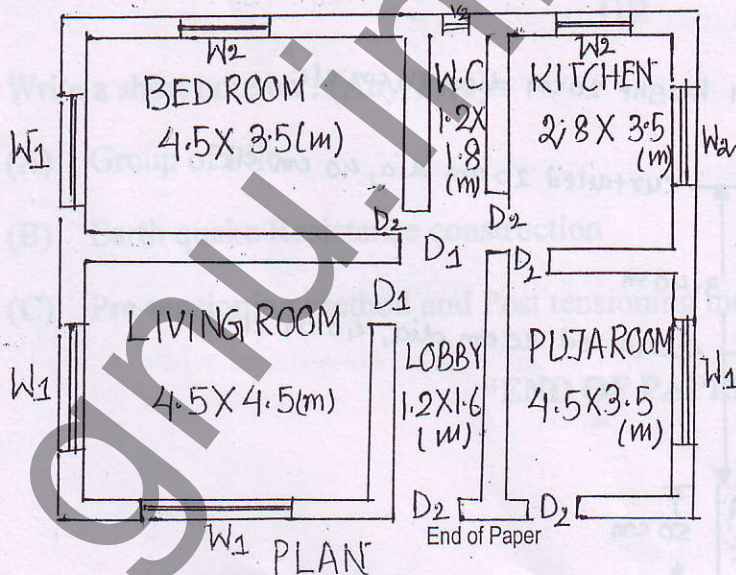
chainage	20	22	24	26	28	30
RL of Ground(M)	106.20	105.90	105.65	104.60	104.30	103.90

Section - II

- Q.4** Prepare rate analysis for following items. (Any Three) (9)
- (A) Earthwork in excavation not exceeding 1.5 m in width.
 - (B) Cement concrete 1:5:10
 - (C) First class brickwork in cement mortar (1:4)
 - (D) 12mm thick cement plastering 1:6
- Q.5** (A) What do you understand by 'Degree of accuracy in estimating'? (5)
- (B) Write detailed specification for 'Cement concrete 1:2:4' (3)

OR

- Q.5** (A) Write detailed specification for Water Bound Macadam Road. (5)
- (B) Enumerate the necessity of specification (3)
- Q.6** Prepared detailed estimate of building for following items. (18)
- (1) Excavation in foundation (2) CC in Foundation. (3) Masonry work up to Lintel level. (4) Plastering inside and outside. (5) 2.5 cm thick DPC (6) CC for lintel



SR. NO.	SYMBOL	NO.	SIZE	UNIT
1	D ₁	1	1.2 x 2.1	DOOR
2	D ₂	5	.9 x 2.1	DOOR
3	W ₁	5	1.8 x 1.5	WINDOW
4	W ₂	1	1.2 x 0.9	WINDOW
5	V ₂	3	0.6 x 0.45	VENTI.