

Roll No.

24513

**B.Tech. 7th Sem.
(Civil Engineering) Examination-
May, 2013**

ESTIMATING AND COSTING

Paper CE-405-F

Time : 3 hours

Max. Marks : 100

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard will be entertained after the examination.

Note : Question No. 1 is compulsory. Attempt one question from each Section. Each question carries equal marks.

1. (a) What are supplementary units ? 2
- (b) Estimate the quantities of brickwork required in a wall 5 m long, 3.5 m high and 30 cm thick. 2

24513-1650-(P-8)(Q-9)(13) (1) [Turn Over

- (c) List the various methods of calculating quantity of earthwork. 2
- (d) What is the purpose of analysis of rates ? 2
- (e) What is the difference between brief specification and detailed specification ? 2
- (f) Write the formula to find sinking fund ? 2
- (g) Under what circumstances revised estimate is prepared ? 2
- (h) What do you mean by overhead costs ? 2
- (i) What is earnest money ? 2
- (j) List the various methods of valuation. 2

SECTION - A

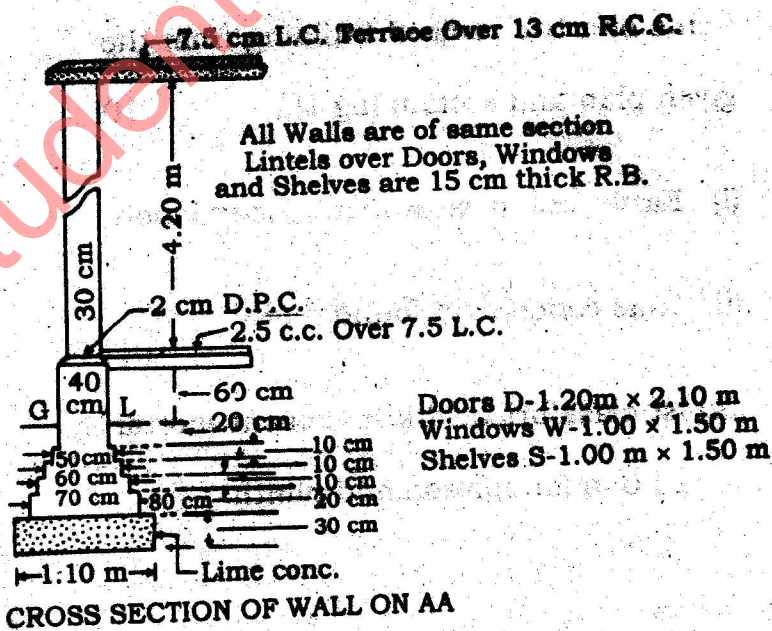
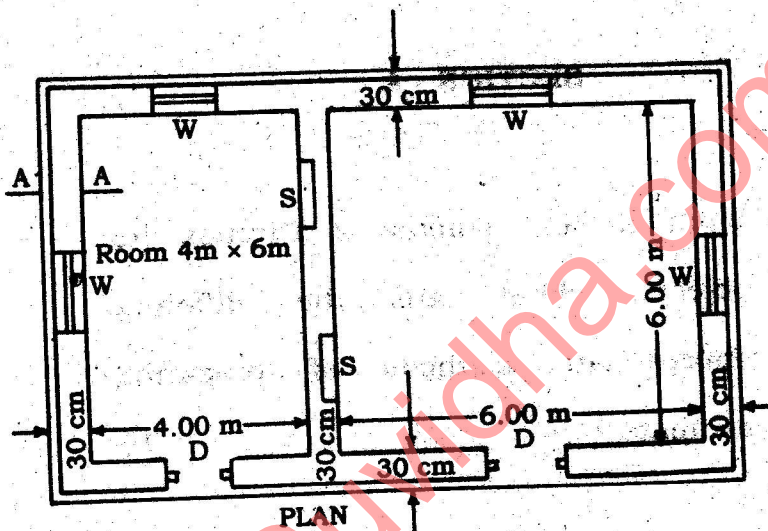
2. (a) What is an estimate ? Discuss its objects. What are the different approximate methods of preparing estimate ? 10

(b) Estimate the quantities of the following items of a two roomed building from the given plan and section (fig 1) : 10

(i) Earthwork in excavation in foundation

(ii) Lime concrete in foundation

**(iii) 1st class brickwork in cement mortar
1 : 6 in foundation and plinth.**



3. (a) With the help of neat sketch, explain canal section : 10

(i) Fully in excavation.

(ii) Partly in excavation and partly in embankment.

(ii) Fully in embankment.

(b) Discuss in detail the methods used for calculation of quantities of earthwork in a hill road. Make neat sketch if required. 10

SECTION - B

4. (a) What is the necessity of specification ?
Discuss the various types of specification. 10



(b) Mention general specifications of : 10

(i) First class building

(ii) Second class building

5. Write down the detailed specifications of the following items of works :

(a) Damp proofing course

(b) Reinforced cement concrete

(c) Distempering

(d) Cement concrete 1 : 4 : 8 in foundation.

SECTION - C

6. (a) What are the general steps for preparing of analysis of rates ? 10

(b) Write down unit of measurement, unit rate of payment and mode of

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measurement for the following general
items of work : 10

(i) Ballies

(ii) Reinforced cement concrete

(iii) Damp proofing course

(iv) Plastering-Cement mortal

(v) Skirting

7. Analyse the rates of the following items of
work. Assume suitable rates of material
and labour. 20

(i) R.C.C. work in column 1 : 1 $\frac{1}{2}$: 3

(ii) Painting with stiff paint one coat

(iii) 2.5 m cement concrete floor 1 : 2 : 4

SECTION - D

8. (a) What are the different types of payments made to the contractor ? Explain. 10

(b) What is valuation ? Discuss the purpose of valuation. Explain rental, return method of valuation in detail. 10

9. Write short notes on :

(a) Muster Roll 5

(b) Salvage and scrap value 5

(c) Earnest money 5

(d) Tender and acceptance of tender. 5