

Assignment 2.

classmate
Date _____
Page _____

- a. 1. What is a Estimate?
- Before taking up any work for its execution, the owner or builder should have a thorough knowledge about the volume of work that can be completed within the limits of his funds or the probable cost that may be required to complete the proposed work.
 - It is therefore necessary to prepare the probable cost or estimate for the proposed work from its plan and specification otherwise it may so happen that the work has to be stopped before its completion due to the shortage of funds or materials.
 - Besides the above an estimate for any public construction work is required to be prepared and submitted beforehand so that section necessary funds may be obtained from the authorities.
 - Thus an estimate for any construction work may be defined as the process of calculating from the dimensions on the drawing for the various items required to complete the project and multiplied by unit cost of the item concerned.

- (a) Purpose of Estimating
- Estimate for a work or project is necessary mainly for the following purpose.
 - i) To ascertain the necessary amount of money required by the owner quantities of materials required for work.
 - a) To ascertain quantities of materials required in order to programme their timely procurement.
 - b) To calculate the number of dependent categories of workers that are to be employed to complete that work within the scheduled time of completion.
 - 4) To assess the requirement of tools, plants and equipment required to complete the work according to the programme.
 - 5) To fix up the completion period from the volume of works involved on the estimate.
 - 6) To draw up a construction schedule and programme to the arrange the funds required according to the programming.
 - 7) To justify the investment of money benefit ratio
 - 8) To invite tenders and prepare bills for payment.
- (b) An estimate for an existing property is required for valuation.
- * Different types of Estimates →
- A detailed Estimates →
 - It includes the detailed particulars for the quantities and costs of all the items involved from satisfied Completion of a project.

- Quantities of all items of work are calculated from their respective dimensions on the drawing on a Measurement sheets.
 - Multiplied by their respective rates to get the quantities by the cost of all item of work are worked out individually and they summarised i.e. abstracted.
 - A detailed estimate is obtained by (a) Sport Specification (b) Detailed drawings showing plans different section key or index plan and Design data and Calculation (c) Basic of rates adopted in the estimate.
 - The method of preparation of detailed estimate has been describe in the next article.
- 4) A preliminary or approximate or rough Estimate:
- This is a approximate estimate to find out an approximate cost in a short time and thus enables the authority concerned to consider the financial aspects of the scheme after knowing the rate of similar works and form practical knowledge in various ways to various types of works such as ~~works~~ such
- (i) plinth area or square Metre Method (ii) cubic Metre Method (iv) boy Method.

A quantity estimate or quantity survey
This is complete estimate of cost of quantities
for all item of work required to complete the concerned project.

The quantity of each individual item of work is worked out from respective dimensions of the drawing & the structure.

To find the cost of an item its quality is multiplied by one rate per unit for that item. Complete plan for plant & structural nature from the design basically approved for a project.

- A revised estimate is prepared and submitted for technical sanction and based on the revised estimate.
- * revised estimates are prepared and based on the revised estimate.
- A revised estimate of a debated estimate for revised quantity and rates of items.

- iii) When there are material variations from the original proposal but not due to material alteration of a structural nature.
- ii) When it's found that the sanctioned estimate is more than the actual requirement.

- 5) A supplementary Estimate -
- While a work is in progress some changes or additional works due to material alteration or a structural nature from the project.
 - An estimate is then prepared to include all such works.
- This is known as a supplementary estimate
- The abstract must show the amount of the original estimate and the total of the sanction required including the supplementary amount.
- 2) How to prepare a detailed Estimate -
- The unit quantity method is followed to prepare a detailed estimate. In this method the rate per unit work of one item including profit and unit cost of one item is calculated and then by multiplying it with the cost of items found out the total per unit weight of the work by the unit cost of one item.
- The procedure for preparations of a detailed estimate is divided into two parts (a) Measurement sheets (b) Particulars
- (a) Measurement sheets is the first part of the measurement + Per dimension of all individual items involved in the whole.

These dimensions taken off from the drawing of the part and entered in the resp. columns of abstract measurement form shown below.

Measurement Form -

Description of particular No length breadth height center or dept. along.

Multiplying this item wise respective dimension of all items worked out on the Measurement Form.

- Abstract of estimate Cost → is the main part in the preparation of a detailed estimate
- The cost of each and every individual item of work its calculated by multiplying the quantity computed rate in a tabular form known as Abstract form.
and Abstract of Estimate Form →

1) Description quantity unit Rate unit of particular (parts) (e.g.)
2) Abstract of Estimate Form

This estimated cost is increased by 5% to S.
for any unforeseen expenditure and is called
Contingency Fund.

To maintain additional supervising staff at the
work site and called the 'work charged'
estimation, or further amount of 2½ %
is directly charged to the estimate prepared
from the item of work

(a) Cost obtained by adding all items priced
(b) contingencies S. and
(c) work charged establishment 2½ %.

detailed estimate is prepared.
The detailed estimate is generally
accompanied by

- i) Report
 - ii) Specifications (Fee of department works)
 - iii) Drawing of consisting of (a) plans, section
etc.
 - iv) Design Charts & Calculations.
 - v) particular of rates In case of
schedule of department rate this is to
mention others use analysis of rate is
required.
- The main function of an abstract.