

Section-D

Public Work Account

✳ Tender:- Tender is a written offer submitted by the contractors in pursuance of the notification given to execute certain work or supply of some specified articles or transport of materials at certain rates with the terms and conditions laid down in the tender documents.

✳ Tender Acceptance:- After investigation, the comparative statement the lowest tender shall be accepted as a rule by the competent authority. If for any reason, economical or other otherwise, the lowest tender is not accepted, reasons should be recorded confidentially and reference shall be made to the tender committee.

- No tender can be accepted or the circumstances under which lowest tender may be rejected

- (i) When the tender is informal
- (ii) If it is not technically sanctioned or exceeds the sanctioned amount for the work.

- (iii) If it involves liabilities exceeding the amount of the expenditure sanctioned.
- (iv) If there is any uncertainty or any condition of an unusual character.
- (v) If it exceeds the amount up to which he/she is empowered to accept tenders.
- (vi) If any provision infringes any standard rule or order of higher authority.
- (vii) If adequate competition and fair rates are not received.
- (viii) In case a contractor has quoted abnormally low rates, analysis of rates may be asked from the contractor. The lowest tender in such a case may or may not be accepted.

When a single tender is received, this should not be opened and accepted. After a decision to accept a tender has been arrived at, a letter communicating such acceptance of the President of India or Governor of State is to be issued to the contractor at the earliest possible opportunity to complete the formalities of contract. A copy of the letter should also be endorsed to the following in addition to the departmental officers and the concerned:

branches:

- (i) Regional Labour Commissioner
- (ii) Income Tax Officers (iii) Labour Officers

✳ Specimen form of letter accepting the tender:- By Registered Post

From: The Superintending Engineer /
Executive Engineer

To: (Name and address of the Contractor)

Memo No. _____ Dated the _____

Subject _____ Tender No. _____

Name of work _____

Dear Sir(s)

Your tender for the above mentioned work has been accepted by the undersigned on behalf of the President/Governor/Authority at your tendered percentage below/above the estimated cost, tender amount of RS. _____

- You are required to attend the office of _____ to complete the formal agreement within seven days of the receipt of this letter. You are also directed to start the work at once. Please note that the time allowed

for carrying out the work as entered in the tender, shall be reckoned from the 15th day after the date of this order to commence work.

yours faithfully,
Sd/- Superintending Engineer/
Executive Engineer

✱ Work Order:- After the formal agreement is performed for the contractor a letter is issued to the contractor known as Work Order to take up the work and the date of completion is treated from the date of issue of this letter.

✱ Contract Documents:- Contain following:-

- 1) Title Page
- 2) Index
- 3) Tender Notice
- 4) Letter of acceptance of tender and written order to commence work
- 5) Any letter given by the contractor with the tender in clarification of rate or terms therein
- 6) Tender form
- 7) Contract condition - 8) Additional Condition
- 9) Schedule of items of work
- 10) General and additional specifications
- 11) Schedule of issue of materials and Tools & plants

- 12) Schedule of fair wages
- 13) A complete set of drawings including plans, sections and elevations.

✱ **Earnest Money:-** It is an assurance or guarantee in the form of cash on the part of the contractor to keep open the offer for consideration and to confirm his/her intentions to take up the work accepted in favour for execution as per terms and conditions in the tender. In case a tender fails to commence the work awarded to him, the earnest money is forfeited to Government. No interest is payable upon earnest money to the contractors.

If the amount of the earnest money is not large (i.e. not exceeding ₹ 50/-) it may be deposited in cash in Divisional or Sub-Divisional Office.

✱ **Security Deposit:-** It is an amount of money which shall be deposited by the contractor whose tender has been accepted in order to render himself liable to the department

to pay compensation amounting to the part or whole of his/her security deposit if the work is not carried out according to the specification, time limit and conditions of contract. After acceptance of the tender of a contractor, the earnest money deposited at the time of tender is treated as part of the security money and the additional amount of security money is deducted from the progressive bills so that the total amount constitute is 10% on the first lakh and 7-6% on the balance. The security deposit is refundable to a contractor after the prescribed maintenance period is over.

✶ Retention Money:- Whenever any claims for payment of a sum of money arises out of or under the contract against the contractor, the Engineer-in-charge is entitled to withhold and also have lien to retain sum or sums in whole or in part from security deposit till finalisation or adjustment of any such claims.

✶ Difference between 'Security Deposit' and Retention money:-

Security Deposit	Retention Money
1) This is compulsory to be deposited before entering into a contract	1) Not compulsory and very rarely arises out of a contract
2) Amount depends on the tendered amount	2) Has no relation with the tendered amount but depends on the amount of claim against a contractor.
3) Refundable after maintenance period is over.	3) Has no relation with the maintenance period and can only be released after finalisation or adjustment of the claim.
4) Amount can not be collected from any other contract	4) Amount can be withheld from any other contract
5) Meant for nonfulfilment of the conditions of contract against a tender	5) Meant for fulfilment of any claim against tender or other tender under the Engineer-in-Charge
6) This is a compulsory clause of the condition of contract	6) This is not a compulsory clause and is provided in some tenders as an Additional Clause.

- ✱ Measurement Book (M.B.):—
Measurement for all works done and supplies received in connection with a sanctioned estimate are recorded in a special type of Note Book (usually size of 15 cm X 10 cm) known as Measurement Book. It contains, besides instructions how to write up the columns for particulars, details of actual measurements in terms of number, length and depth, and the contents of area. The pages are machined numbered.

Particulars	Details of actual measurement				Content or area
	No.	L.	B.	H. or D.	

It is one of the ^{most} important initial records of the Department and is preserved carefully.

- ✱ Bills and Vouchers:— Bill is a detailed amount of claim for works done or supplies made indicating quantities, rate and amount due. The bill after payment becomes Voucher and is kept on record as a legal proof of payment. The departmental

forms of bills in vogue are:-

- (a) First and Final Bill ~~(Form-1)~~
- (b) Running Account Bill
- (c) Hand Receipt

First and Final Payment are some types of works where running payments can not be provided as a contractor does require intermediate payments. Usually, for a small work or supply of materials or for lump-sum contract, this type of bills are prepared for payment after completion of a work.

✳ **Cash Book:-** It is one of the most important account records of the Division. It is maintained in Form for all cash transaction taking place day to day strictly in order of occurrence. The detailed instructions are available in the fly leaf of the cash book. The page of cash book are machine numbered. Each page is divided RECEIPT side (at left hand) and PAYMENT SIDE (at right hand)...

Receipts Side

Payment Side

Date of Receipt	No. of Receipt	From whom received	Amount (Cash)	Classification of Receipts	Date of Payment	No. of Vch.	To whom Paid etc.	Cash	Bank or Try	No. of ch.	Amount	Classification of charges
1	2	3	4	5	6	7	8	9	10	11	12	



Project

(i) Administrative approval or sanction

(ii) Expenditure sanction

(iii) Technical sanction

(iv) Appropriation or allotment of fund

(i) & (ii) Administrative approval and expenditure sanction are formal Approval and concurrence given by an administrative Department of the Govt. for a work or project for which preliminary estimate has been framed by the P.W.D. to meet the needs of Department requiring the work. This is, in effect, order on the P.W.D. to execute the proposed work within the amount so sanctioned.

(ii) Technical sanction is the term which denotes the order of the competent authority of the P.W.D. sanctioning a proper detailed estimate of a work or project. It amounts to

no more than a guarantee that the estimate is accurately framed and structurally sound.

(iv) Appropriation or allotment of fund represents the amount available for expenditure on a work during a particular financial year i.e. from April to March.

In case of excess of more than 10% over the amount of administrative approval or technical sanction and 5% over the Expenditure sanction, a revised administrative approval, Expenditure sanction or technical sanction, as the case may be, is required to be obtained from authorities concerned before incurring the liability.

✱ Mustek Roll:- The categories of skilled and unskilled workers employed on works are daily rated Mustek Roll labour whose daily attendance and outturn are recorded for the purpose of payment. The work is executed under direct supervision of the

Sectional Officers or Sub-Divisional Officers concerned and may be inspected by higher Officers. ✓

Exem
Cash book Voucher No. _____ Dated _____
Name of Cheque _____ But-I Nominal Roll _____

Category of Labourer	Sl. No.	Name & Address	Father's Name	Dates						Total	Rate Amount	Inspector's Signature & Stamp	Date of making Payment
				1	2	3	4	5	6				
		Daily Total									R.S.P.	R.S.P.	
		Initial of officer making daily attendance initial of Inspector									Total		

Passed for Rs. --- (Rupees ---)

Signature - - - - Rank

Grand total of this muster roll - - -
 deduct payments not made as per details transferred
 to register of arrears - - -
 Total amount paid in words Rupees ..

Writing of Muster Roll :-

- 1) The Sectional Officer of the works should record the attendance of muster roll daily at the time of roll call and check once during the day.
- 2) The Engineer should conduct surprise checks frequently, to ensure that entries made for workers in the Muster Rolls are actually employed and their out turn is proportionate with expenditure incurred on them.
- 3) During marking attendance in the Muster Roll, father's/husband's name of the labourers and workmen alongwith their permanent address should invariably be mentioned.
- 4) The workers who have no permanent residences, the village or locality where they normally reside should be mentioned.
- 5) The daily attendance, ~~who~~ have absence and fines if any imposed on them, should be recorded neatly.
- 6) After closing the muster roll the Engineer should complete all entries in the measurement book and payment against it is made expeditiously.
- 7) If any wages remain "Unpaid", details

thereof should be recorded in muster roll.

- 8) In muster roll work done by the labourers and workmen employed on the Muster Roll should be recorded.

✱ Measurement and Payment for work done by contractor :-

- (a) Intermediate or running payment,
(b) Final Payment (c) Payment for extra work for additional or substituted item.

- (a) Intermediate or running payment to the contractor :- Under the terms of contract the contractor is to be paid monthly for works-in progress. These payments in intermediate stage of the work are made by way of advances adjustable in the final bill which is drawn only after completion of work in all respects.

For this purpose, the contractor is required to submit a bill to the Department in the prescribed form by a fixed date. If fails to do so, the Department through their employees get the works measured and billed which the contractor

has to accept.

(b) Final Payment:- It is to be made within three months from the date of issue of certificate of final completion. The above procedure is followed in case of final payment to suppliers also. The points which are specially to be looked into before final payments are as follows:-

- (i) The work is complete as per specification and the site has been left cleaned.
- (ii) The measurement recorded are in accordance with the method prescribed in the contract, has been made, serviceable dismantled materials have been deposited by the contractor in good conditions.
- (iii) The bill is drawn in the prescribed form printed on yellow paper.

(c) Payment of extra works or additional or for substituted items:- Except in the case of abnormally high or low rated items where the quality deviations are restricted within 5% by the authority accepting the tender, other variations in qualities of work actually done are measured and paid at the

contract rates in the usual manner.

✳ Different Types of Bills:-

Bills may be of three types,

(a) Intermediate or running payment as Running Account shortly known as R.A.-1, R.A.-2 etc. This bill is prepared when a construction work is in progress and intermediate or running payment is made to a contractor in order to give him some relief at the different stages of progress.

R.A-1

- 1) Name of Work - - -
- 2) Situation of Work - - - -
- 3) Name of Contractor - - - -
- 4) Number and date of agreement - - - -
- 5) Date of written order to commence the work - - -
- 6) Date of actual completion of work - - -
- 7) Date of recording measurements - - - -
- 8) Reference to previous measurements - -

(b) Running and Final Payment:- After giving some running account payments when a contractor complete the work the last payment known as final

payment stage arises. But, the last payment is a running but final payment and accordingly this is known as Running and Final Payment.

Running Account Bill

Cash Book Voucher No. _____

Name of Contractor or Supplier _____

Name of work _____

Purpose of Supply _____

Serial No. of Bill _____

No. and date of last Bill for work _____

Reference to agreement _____

Date of written order to commence work _____

Date of actual completion of work _____

(c) First and Final Payment:- There are some types of works where running payments can not be provided or a contractor does require intermediate payment. Usually, for a small work or supply of materials or for lump-sum contract, this type of bills are prepared for payment after completion of a work.

❖ Valuation:- It is the art of assessing the present fair value of a property at a stand time. Valuation of anything is an estimate of the value of that thing in terms of money. It only attempts at suggesting the fair prices. Yet, it is not an arbitrary process.

Purposes:-

- 1) Purchase for investment or for occupation:-
-- For investment a property is purchased and for this valuation of the property becomes necessary.
- 2) Tax fixation:- To fix up municipal tax of a property, the valuation is essential by the municipal authorities which depends on the class of city and trade importance.
- 3) Sale:- For sale of property, valuation becomes necessary which depends on price.
- 4) Rent fixation:-
- 5) Insurance Premium
- 6) Mortgage value or Security of loan
- 7) Compulsory Acquisition
- 8) Speculation
- 9) Betterment charges
- 10) Wealth tax and Estate duty
- 11) Gift tax
- 12) Partition

- 13) Probate
- 14) Assessment of Income or Stamp fees
- 15) Capital gains tax

✱ Scrap Value:- It is the value of dismantled materials of a property at the end of its utility period, and absolutely useless except for sale as scrap. When it applies to an old building which has outlived its useful span of life and repairing for re-use is not viable, a certain amount can be got by selling the old useful materials less cost of demolition of the buildings. The scrap value of a building is usually considered as 10% of the cost of construction. It is also known as junk value or Demolition value.

✱ Salvage Value:- It is the estimated value of a built up property at the end of its useful life without being dismantled. This is generally ascertained by deducting the depreciation from its new cost. But there are times when salvage value is of sizable amount, and there are other times

when it is a minus quantity.

Scrap Value

Salvage Value

- | | |
|--|--|
| 1) It is the dismantled sale value of materials of an asset at the end of its useful life. | 1) This is the estimated value of an asset as a whole without dismantling at the end of its useful life. |
| 2) It is counted in the calculation of depreciation of a property at the end of useful life. | 2) Ordinarily this value factor in the calculation of depreciation is omitted by accounting scrap value. |
| 3) Scrap value of an asset is merely sale of scrap and has a limitation. | 3) Salvage value deposition may take the form of a sale of the asset to a purchaser who will continue to use it. |
| 4) It is not counted as a minus quantity. | 4) There are times when it is a minus quantity. |

✶ Sinking Fund:- It is an amount which has to be set aside at fixed intervals of time out of the gross income so that at the end of the useful life of the building or property, the fund should accumulate to the initial cost of the property. It is periodically collected and deposited in a bank to get highest compound interest or sinking fund insurance policy.

is contracted with the insurance company throughout the life of building or article. For land sinking fund is not required.

Determination:-

The calculation of sinking fund depends upon the life of a building and also upon the rate of interest.

Let, S = Total amount of sinking fund

I = Annual instalment required

i = Rate of interest in decimal

n = number of years

I_c = Co-efficient of annual sinking fund

So that $I_c = I \times S$

The first annual instalment would accumulate interest for $(n-1)$ years, the second for $(n-2)$ years and so on.

Also the annual sinking fund for a redemption of Rs.1 would be

I_c (as $I = I_c \times S$ and $S = 1$)

Consequently, the first instalment would accumulate amount to

$I_c(1+i)^{n-1}$, the second to

$I_c(1+i)^{n-2}$ etc. Whence

$$I_c \left[(1+i)^{n-1} + (1+i)^{n-2} + \dots + (1+i)^2 + (1+i) + 1 \right] = 1$$

$$\text{or, } I_c = \frac{[(1+i)^n - 1]}{(1+i) - 1} = 1$$

$$\therefore \left[I_c = \frac{i}{(1+i)^n - 1} \right] \quad \text{--- (1)}$$

Equating (1) the co-efficient of sinking fund is an important expression frequently required for valuation.

Consequently,

$$\left[I = I_c \times S = \frac{S_i}{(1+i)^n - 1} \right] \quad \text{--- (2)}$$



Depreciation:- It is the loss in the value of the property due to its use, life, wear, tear, decay, obsolescence.

This is an assessment of the physical wear and tear of the building or property and is naturally dependent on its original condition, quality of maintenance and mode of use.

The general decrease in the value of a property is known as Annual depreciation.

Types:-

1) Physical depreciation:

- wear and tear from operation
- Decrepitude i.e. action of time and the elements

The top surface of the rails of a railway track may lose its true shape due to constant friction of running trains on

on the rails for a long period and become unsafe for its physical depreciation due to wear and tear from operation.

Physical depreciation may also be due to action of time and the elements.

2) Functional Depreciation:

a) Inadequacy or Suppression

b) Obsolescence

This is determined by reference of units of use or performance rather than age. The estimate for functional depreciation is made by the "Service Output Method" of calculation.

3) Contingent depreciation:

(a) Accidents (due to negligences, the elements and structural defects)

(b) Diseases (parasites, pollution of water etc.)

(c) Diminution of supply (natural gas, water etc.)

☒ Different methods of valuation :-

(a) Rental method (b) Land and building method also known as Initial cost

based valuation, (C) Direct comparison method, (D) Profit based valuation (E) Development method

✶ Rental Method Of Valuation:-

In this method, the net rental income is calculated after deducting all outgoings from the gross rent and year's purchase is calculated after adopting the current bank interest. Then valuation of a property is worked out by multiplying the net rental income by the year's purchase.

$$\text{Capitalised Value} = \text{Net rent} \times \text{year's purchase}$$

$$\text{Net rent} = \text{Gross rent} - \text{outgoings}$$

During valuation, the following particulars shall be considered:

- 1) Land and its tenure
- 2) Cubic contents of building,
- 3) Future life of the building
- 4) Gross rent
- 5) Outgoings,
- 6) year's purchase
- 7) Capital repairs,
- 8) Value of land

This is well known method and widely used to fix up taxes.

Disadvantages:-

- (i) The actual rent paid must be provided to be fair rent, otherwise very little

reliance can be placed upon it.

- (ii) A property consisting of land and building valued together cannot be proportioned afterwards.
- (iii) Judicial judgement for outgoings under various heads is difficult.
- (iv) Year's purchase is dependable on the consideration of rate of interest.

✳ Land And Building Method Of Valuation
Valuation of under-developed, or owner-occupied or vacant possession or damaged properties may be done by this method.
Its basic principle is to determine the individual market value of land and simultaneously the individual depreciated value of building. Adding these two values is the valuation of the property.

Valuation of Land:- Done by

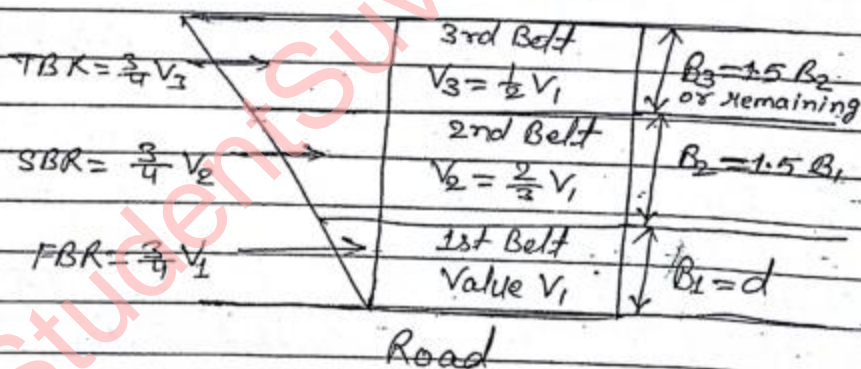
- (a) Comparative method
- (b) Belting method
- (c) Hypothetical Building Schemes

(a) Comparative Method:- The simplest and most direct method of valuation is direct comparison. There are two main factors on which this method is based (1) Sale prices and (2) Similar neighbourhood lands

(1) The sale prices should be recent so there is no rise in value of land during the intervening period of comparison.

(2) The method is based on a comparison of like to like.

(b) Belting Method:-



Each strip of land is known as belt. A relationship regarding the value and depth of each belt to the front belt is fixed up. Ascertaining a rate per m^2 of land for the first belt the value of each belt is worked out.

Multiplying the area of each belt by respective related rate per unit area. After summing up the value of each belt, the value of the entire plot of land can be known. This system of valuation is known as belting method of valuation.