

# B.Com Second Year

Cost Accounting

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Reference

Swati Publication

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Chapter- Process Costing

# PROCESS COSTING - Meaning

Process costing is that form of operation costing which is used to ascertain the cost of the produce at each process or stage of manufacturing, where process are carried out one or more of the following **features**:

- Production is done having a continuous flow of identical products.
- Clearly defined process cost centres and the accumulation of all costs by the cost centre.
- The maintenance of accurate records of the units and part units produced and cost incurred by each process.
- The finished product of one process becomes the raw-material of the next process or operation and so on until the final product is obtained.
- Avoidable and unavoidable losses usually arise at different stages of manufacture for various reasons.

## Illustrations.

### Simple Process A/c.

Ill 1:- Process 'A' A/c.

		Output - 1000 Units	
Particulars	Amount Dr ₹	Particulars	Amount Cr. ₹
To Materials	28000	By Ready Process.	65000
To Labour.	25000	Tr. to 'B' A/c.	
To Direct Expenses.	7000	Cost per Unit = $\frac{65000}{1000} = 65$	
To Indirect Exp. $[(14000 \times 5) / 14]$	5000		
	<u>65000</u>		<u>65000</u>

Process 'B' A/c.

		Output - 1000 Units	
Particulars	Amount Dr ₹	Particulars	Amount Cr. ₹
To Process 'A' A/c (trans)	65000	By Next Process to 'C' A/c.	105000
To Materials.	13000	Cost per Unit = $\frac{105000}{1000} = 105$	
To Labour	20000		
To Direct Expenses.	3000		
To Indirect Exp. $[(14000 \times 4) / 14]$	4000		
	<u>105000</u>		<u>105000</u>

Labour ratio for indirect Expenses

$$= 25000 : 20000 : 25000$$

$$= 5 : 4 : 5.$$

Process 'C' A/c.

Output - 1000 Units.

Particulars	Amount ₹	Particulars	Amount ₹
To Process B A/c (transfer)	105000	By Finished Stock A/c (transfer)	150000
To Materials.	9000	Cost per Unit = $\frac{150000}{1000}$	
To Labour.	25000	= ₹150.	
To Direct Expenses.	6000		
To Indirect Exp [14000 x $\frac{5}{14}$ ]	5000		
	<u>150000</u>		<u>150000</u>

III:-

Process 'A' A/c.

Output - 500 Units.

Particulars.	Amount ₹	Particulars	Amount ₹
To Materials.	2600	By Process 'B' A/c (transfer)	6600
To Wages.	2500	Cost per Unit = 6600	
To Direct Expenses.	700	= ₹ $\frac{6600}{500}$	
To Indirect Exp [1300 x $\frac{6}{13}$ ]	600		
	<u>6600</u>		<u>6600</u>

Process 'B' A/c.

Output - 500 Units

Particulars	Amount ₹	Particulars	Amount ₹
To Process A A/c (transfer)	6600	By Sale of By-product	145
To Materials.	2400	By Process 'C' A/c (transfer)	1245
To Wages.	2000	Cost per Unit = $\frac{1245}{500}$	
To Direct Expenses.	1200	= ₹ 24.91	
To Indirect Exp [1300 x $\frac{4}{13}$ ]	400		
	<u>12600</u>		<u>12600</u>

Indirect Expenses Ratio  $\rightarrow$  150 : 100 : 75% [150% : 50%]

= 6 : 4 : 3

Process 'C' A/c.

			Output - 500 Units.		
Particulars	Units	Amount ₹	Particulars	Units	Amount ₹
To Process 'B' A/c (transf.)	500	12455	By Sale of Residue.	-	165
To Materials		1000	By F.S. A/c.	500	16995
To wages		2500	Cost Per unit = $\frac{16995}{500}$		
To D. Expenses		905	= ₹ 33.99		
To Ind. Exp. [ $1300 \times \frac{3}{13}$ ]		300			
	500	17160		500	17160

Loss in Weight and Valuation of Opening and Closing Stock.

Ill 3:- Process 'A' A/c.

			Output: - 36000 Units.		
Particulars	Units	Amount ₹	Particulars	Units	Amount ₹
To Wages & Materials	36000	28000	By Next Process	36000	36000
To Wages O/H.		8000	Tr. to 'B' A/c.		
			C.p.U = $\frac{36000}{36000}$ = ₹ 1.00		
	36000	36000		36000	36000

Process 'B' A/c

Output: - 37500 Units.

Particulars	Units	Amount ₹	Particulars	Units	Amount ₹
To Next Process T4. From (A)	36000	36000	By Wastage or Loss in wt	1500	-
To O/S @ ₹ 1.00 p.U	4000	4000	-ight [BIF]		
To wages & Materials	1-	11000	By C/S @ ₹ 1.00 p.U.	1000	1000
To Works O/H.		6250	By Process 'C' A/c [transfer]	37500	56250
			Cost Per Unit = $\frac{56250}{37500} = ₹ 1.50$		
	40000	57250		40000	57250

Process 'C' A/c.

Output: - 48000 Units

Particulars	Units	Amount ₹	Particulars	Units	Amount ₹
To Next Process from B	37500	56250	By Loss in Weight	500*	-
To O/S @ ₹ 1.50 p.U	16500	24750	By C/S @ ₹ 1.50 p.U.	5500	8250
To wages & Material		30250	By F.C [transfer]	48000	108000
To Works O/H.		5000	Cost P.U = $\frac{108000}{48000} = ₹ 2.25$		
	54000	1,16,250		54000	1,16,250

## Valuation of Opening and Closing Stock Related to Preceding Process.

July:-

### Process 'A' A/c.

			Output:- 36000 Units.		
Particulars	Units	Amount ₹	Particulars	Units	Amount ₹
To Raw Materials.	37000	24000	By Wastage.	1000	-
To Direct wages.		6400	By Process 'B' A/c.	36000	36000
To Machine Expenses		3600	(transfer) @ ₹1.00 p.u		
To Factory on Cost		2000	Cost p.u = $\frac{36000}{36000} \times 1 p.u$		
	37000	36000		37000	36000

### Process 'B' A/c.

			Output:- 37500 Units		
Particulars	Units	Amount ₹	Particulars	Units	Amount ₹
To Process 'A' A/c (transfer)	36000	36000	By Wastage.	1500	-
To O/S @ ₹1 p.u	4000	4000	By C/S @ ₹1.00 p.u	1000	1000
To D. Wages.		12000	By Process 'C' A/c transfer	37500	56250
To Machine Expenses		3000	@ ₹1.50 p.u.		
To Factory on Cost		2250	Cost p.u = $\frac{56250}{37500} \times 1.50$		
	40000	57250		40000	57250

### Process 'C' A/c.

			Output:- 48000 Units		
Particulars	Units	Amount ₹	Particulars	Units	Amount ₹
To Process 'B' A/c (transfer)	37500	56250	By Wastage.	500	-
To O/S @ ₹1.50 p.u	16500	24750	By C/S @ ₹1.50 p.u	5500	8250
To D. Wages.		29250	By F. G A/c @ ₹2.25 p.u	48000	108000
To Machine Exp.		3600	Cost p.u = $\frac{108000}{48000} \times 2.25$		
To Factory on Cost		2400			
	54000	116250		54000	116250

## Long Answer Numerical Questions,

1) Ratio for indirect Expenses (wages) = 10000 : 8000 : 10000  
= 5 : 4 : 5.

### Process 'A' A/c.

Output:- 2000 Units.

Particulars	Amount ₹	Particulars	Amount ₹
To Material Consumed	120000	By Tr. to Process 'B' A/c.	280000
To Wages.	100000	Cost per ton = $\frac{280000}{2000}$ ₹140	
To Direct Expenses.	10000		
To Indirect Exp. $[\frac{140000 \times 5}{14}]$	50000		
	<u>280000</u>		<u>280000</u>

### Process 'B' A/c.

Output:- 2000 Units

Particulars	Amount ₹	Particulars	Amount ₹
To Tr. from Process 'A' A/c.	280000	By Tr. to Process 'C' A/c.	480000
To Material Consumed	60000	Cost per ton = $\frac{480000}{2000}$ ₹240	
To Wages.	80000		
To Direct Expenses.	20000		
To Indirect Expenses $[\frac{140000 \times 4}{14}]$	40000		
	<u>480000</u>		<u>480000</u>

### Process 'C' A/c.

Output:- 2000 Units.

Particulars	Amount ₹	Particulars	Amount ₹
To Tr. from Process 'B' A/c.	480000	By Finished Stock A/c.	700000
To Material Consumed.	40000	Cost per ton = $\frac{700000}{2000}$ ₹350	
To Wages.	100000		
To Direct Expenses.	30000		
To Indirect Exp. $[\frac{140000 \times 5}{14}]$	50000		
	<u>700000</u>		<u>700000</u>



Wastage and Stocks Information are Given.

Process 'A' A/c.					
Particulars	Units	Amount ₹	Particulars	Units	Amount ₹
To Direct Wages.	2750	2500	By Wastage.	150	-
To Machine Expenses	-	1400	By Next Process to 'B' A/c.	2600	13000
To Factory on Cost	-	1100	C.P.U = $\frac{13000}{2600} = ₹5.$		
To Raw Mat. Used.	-	800			
	2750	13000		2750	13000

Process 'B' A/c.					
Particulars	Units	Amount ₹	Particulars	Units	Amount ₹
To Next Process from 'A' A/c.	2600	13000	By Loss in Weight.	-	-
To Direct Wages.	-	5000	By Wastage.	210	-
To Machine Expenses.	-	1200	By C/S @ ₹5 p.u	440	2200
To O/S @ ₹5 p.u	250	1250	By Next Process to 'C' A/c.	2200	19800
To Factory on Cost	-	1550	C.P.U = $\frac{19800}{2200} = ₹9.$		
	2850	22000		2850	22000

Process 'C' A/c.

Particulars	Units	Amount ₹	Particulars	Units	Amount ₹
To Wt Procmt to B' A/c.	2200	19800	By Wastage.	200	-
To O/S @ ₹9 p.U	500	4500	By O/S @ ₹9 p.U	100	900
To Direct Wages.	-	6500	By finished Stock A/c.	2400	32000
To Machine Exp.	-	1200	C.P.U = $\frac{32000}{2400} = ₹13.33$		
To Factory on Cost	-	900			
	2700	32900		2700	32900