



B.Com Honours

Semester IV

Calicut University

APPLIED COSTING AND CONTROL

Course Code: COM4CJ204 • Module 3 Notes

Module III: Process Costing & Service Costing

Covers continuous process manufacturing accounting, treatment of normal/abnormal losses, joint product cost allocation, and transport service operating cost calculations.

Unit 10: Process Costing – Normal Loss, Abnormal Loss, & Abnormal Gain

1. Normal Loss: Unavoidable operational loss inherent in process; scrap value credited to Process Account.

2. Cost per Unit Formula:

$$\text{Cost per Good Unit} = \frac{\text{Total Process Cost} - \text{Scrap Realized from Normal Loss}}{\text{Total Input Units} - \text{Normal Loss Units}}$$

3. Abnormal Loss / Gain: Variance beyond normal expected loss; transferred to Costing P&L at Cost per Good Unit.

Unit 11: Joint Products & By-Products

Joint Products: Two or more principal products of equal economic importance produced simultaneously from a common raw material process (e.g., Petrol & Diesel in oil refining).

By-Products: Secondary products of minor commercial value emerging incidentally.

Unit 12: Joint Cost Apportionment & Equivalent Production

Methods: Physical Units Method, Sales Value at Split-off Point, and Net Realizable Value (NRV). Equivalent Production converts partially completed Work-in-Progress (WIP) into equivalent completed units.

Unit 13: Service / Operating Costing – Transport Undertakings

Applied to service industries. Composite Cost Units: **Passenger-Kilometers** (Passengers × Distance) or **Ton-Kilometers** (Freight Weight × Distance). Operating Cost Sheet categorizes costs into Fixed (Standing) Charges, Maintenance Charges, and Running / Operating Expenses.

Practical Problem 1 (Process Account Ledger with Normal & Abnormal Loss Solved Math): Product A passes through Process I. Input = 1,000 units @ Rs. 10 per unit (Rs. 10,000). Additional Direct Materials = Rs. 4,000; Direct Wages = Rs. 3,000; Production Overheads = Rs. 2,000.

Process Conditions: Normal Loss = 10% of input units (Scrap value = Rs. 3 per unit). Actual Output transferred to Process II = 850 units. Calculate (a) Normal Loss Units & Scrap Value, (b) Abnormal Loss Units, (c) Cost per Good Unit, and (d) Prepare Process I Account.

Step-by-Step Solved Process Computations:

- 1. Normal Loss & Scrap Realization:**

Normal Loss Units = 10% of 1,000 = **100 units**. Scrap Realized = 100 units × Rs. 3 = **Rs. 300**.

- **2. Cost per Good Unit Calculation:**

Total Direct Cost = 10,000 + 4,000 + 3,000 + 2,000 = Rs. 19,000. Net Cost = 19,000 - 300 = Rs. 18,700.

Expected Good Output = 1,000 - 100 = 900 units.

Cost per Good Unit = 18,700 / 900 units = Rs. 20.7778 per unit

- **3. Abnormal Loss Determination:**

Abnormal Loss Units = Expected Good Output (900) - Actual Output (850) = **50 units**.

Abnormal Loss Valuation = 50 units × Rs. 20.7778 = **Rs. 1,038.89**.

Output to Process II Valuation = 850 units × Rs. 20.7778 = **Rs. 17,661.11**.

Process I Account Ledger:

Dr. Particulars	Units	Amount (Rs.)	Cr. Particulars	Units	Amount (Rs.)
To Direct Raw Material Input	1,000	10,000.00	By Normal Loss (Scrap @ Rs. 3)	100	300.00
To Additional Material	-	4,000.00	By Abnormal Loss (at Cost)	50	1,038.89
To Direct Labour	-	3,000.00	By Output to Process II	850	17,661.11
To Production Overheads	-	2,000.00			
TOTAL	1,000	19,000.00	TOTAL	1,000	19,000.00

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