

**Dr.SNS RAJALAKSHMI COLLEGE OF ARTS AND SCIENCE  
(Autonomous)**

**Accredited by NAAC - UGC with 'A+ Grade (Cycle IV)  
( Recognized by UGC, Approved by AICTE & Affiliated to Bharathiar University)  
Coimbatore- 49**

**DEPARTMENT OF COMMERCE WITH INFORMATION  
TECHNOLOGY**

**21UCR402 – FUNCTIONAL ACCOUNTING**

**Unit-3: Departmental Accounting – Problems**

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## Preparation of Trading Account in Departmental Accounting

1. From the following details, prepare departmental trading accounts:

Particulars	Department A	Department B
Opening stock	9,000	8,400
Total Purchases	27,000	21,600
Total sales	42,000	36,000
Closing stock	10,800	4,800
Credit purchases	17,000	10,600
Credit sales	5,000	6,000

## Preparation of Trading Account in Departmental Accounting

Solution:

Particulars	Dept. A (₹)	Dept. B (₹)	Particulars	Dept. A (₹)	Dept. B (₹)
Opening Stock	9,000	8,400	Sales	42,000	36,000
Purchases	27,000	21,600	Closing Stock	10,800	4,800
Gross Profit (Bal. c/d)	16,800	10,800			
<b>Total</b>	<b>52,800</b>	<b>40,800</b>	<b>Total</b>	<b>52,800</b>	<b>40,800</b>

2. From the following information, prepare departmental trading and profit and loss a/c in a columnar form of the three departments of Sharma Dry cleaner Ltd.

	<b>Dry cleaning</b>	<b>Darning</b>	<b>Dyeing</b>
Stock on 1 <sup>st</sup> Jan 1996	4,00,000	3,40,000	9,40,000
Stock on 31 <sup>st</sup> Dec 1996	3,30,000	4,38,000	8,17,000
Purchase	19,59,000	6,97,000	13,73,000
Sales	40,00,000	20,00,000	40,00,000
wages	7,28,000	3,00,000	2,46,000

## Solution:

Sharma Dry Cleaners Ltd.

Departmental Trading & Profit and Loss Account for the year ended 31-12-1996

Particulars	Dry Cleaning (₹)	Darning (₹)	Dyeing (₹)	Particulars	Dry Cleaning (₹)	Darning (₹)	Dyeing (₹)
To Opening Stock	4,00,000	3,40,000	9,40,000	By Sales	40,00,000	20,00,000	40,00,000
To Purchases	19,59,000	6,97,000	13,73,000	By Inter-dept Transfers	27,000 (3000+2400 0)	42,600 (2400+40200)	43,800 (25800+1800 0)
To Inter-dept Transfers	28,200 (25800+2400)	21,000 (18000+3000)	64,200 (40200+24000)	By Closing Stock	3,30,000	4,38,000	8,17,000
To Wages	7,28,000	3,00,000	2,46,000				
To Gross Profit c/d	<b>12,41,800</b>	<b>11,22,600</b>	<b>22,37,600</b>				
<b>Total</b>	<b>43,57,000</b>	<b>24,80,600</b>	<b>48,60,800</b>	<b>Total</b>	<b>43,57,000</b>	<b>24,80,600</b>	<b>48,60,800</b>

To Stationery	1,806	1,806	1,806	By Gross Profit b/d	12,41,800	11,22,600	22,37,600
To Postage	1,350	1,350	1,350				
To General Expenses	79,206	79,206	79,206				
To Insurance	3,360	3,360	3,360				
To Depreciation	10,866	10,866	10,866				
To Rent & Taxes(2:1:1:1)	72,000	36,000	36,000				
To Net Profit	<b>10,73,212</b>	<b>9,90,012</b>	<b>21,05,012</b>				
<b>Total</b>	<b>12,41,800</b>	<b>11,22,600</b>	<b>22,37,600</b>	<b>Total</b>	<b>12,41,800</b>	<b>11,22,600</b>	<b>22,37,600</b>

3. There are two departments in a firm X and Y.

Goods are transferred from Dept X to Dept Y at usual **selling** price. You are required to compute stock reserve on stocks of Dept. Y from the following data.

G.P. Ratio of Dept X : 25% on cost,

Opening stock of Dept Y : Rs.50,000,

Closing stock of Dept Y : Rs.75,000.

**Solution:**

Convert GP on cost to GP on sales:

GP on cost = 25%

Cost = 100

Profit = 25

Selling Price = 125

GP on sales =  $25 / 125 \times 100 = 20\%$

## Calculate Stock Reserve:

Opening Stock Reserve (Dept. Y) = 20% of ₹50,000  
= ₹10,000

Closing Stock Reserve (Dept. Y) = 20% of ₹75,000  
= ₹15,000

Stock Reserve on Opening Stock	10,000
Stock Reserve on Closing Stock	15,000

4. The following purchases were made by a business house having three departments :

- Dept A - 1000 units,
- Dept B - 2000 units,
- Dept C - 2400 Units (all three departments are at a total cost of Rs.1,00,000)

Stocks on 1st Jan were :

- Dept A - 120 units,
- Dept B - 80 units,
- Dept C - 152 Units.

Sales were:

- Dept A - 1020 Units at Rs. 20 each,
- Dept B - 1920 units at Rs. 22.50 each,
- Dept C - 2496 units at Rs.22 each.

The rate of gross profit is same in each case. Prepare departmental trading account

## Working Notes:

### (1) Calculation of Closing Stock (in units)

Opening stock + Purchase – Sales = Closing stock

Dept. A :  $120 + 1,000 - 1,020 = 100$  units

Dept. B :  $80 + 2,000 - 1,920 = 160$  units

Dept. C :  $152 + 2,400 - 2,496 = 56$  units

### (2) Calculation of Rate of Gross Profit

Assuming all purchased units are sold:

Dept. A :  $1,000$  units  $\times 20 = 20,000$

Dept. B :  $2,000$  units  $\times 22.50 = 45,000$

Dept. C :  $2,400$  units  $\times 25 = 60,000$

**Total Sales = 1,25,000**

**Less: Total Cost = 1,00,000**

**Gross Profit = 25,000**

## Rate of Gross Profit on Selling Price:

Particulars	Calculation	Result
Rate of Gross Profit	$25,000 / 1,25,000 \times 100$	20%
Cost	$100\% - 20\%$	80% of Selling Price

### (3) Cost Price of Each Unit

Department	Calculation	Cost per Unit (₹)
Dept. A	$20 \times 80 / 100$	16
Dept. B	$22.50 \times 80 / 100$	18
Dept. C	$25 \times 80 / 100$	20

#### (4) Purchase of Each Department

Department	Units × Cost	Amount (₹)
Dept. A	1,000 units × 16	16,000
Dept. B	2,000 units × 18	36,000
Dept. C	2,400 units × 20	48,000

#### (5) Sale Proceeds of Each Department

Department	Units × Selling Price	Amount (₹)
Dept. A	1,020 units × 20	20,400
Dept. B	1,920 units × 22.50	43,200
Dept. C	2,496 units × 25	62,400

### (6) Value of Opening Stock at Cost

Department	Units × Cost	Amount (₹)
Dept. A	120 units × 16	1,920
Dept. B	80 units × 18	1,440
Dept. C	152 units × 20	3,040

### (7) Value of Closing Stock at Cost

Department	Units × Cost	Amount (₹)
Dept. A	100 units × 16	1,600
Dept. B	160 units × 18	2,880
Dept. C	56 units × 20	1,120

Solution:

## Departmental Trading Account

Particulars	A (₹)	B (₹)	C (₹)	Particulars	A (₹)	B (₹)	C (₹)
To Opening Stock	1,920	1,440	3,040	By Sales	20,400	43,200	62,400
To Purchases	16,000	36,000	48,000	By Closing Stock	1,600	2,880	1,120
To Gross Profit (Bal. fig.)	4,080	8,640	12,480				
<b>Total</b>	<b>22,000</b>	<b>46,080</b>	<b>63,520</b>	<b>Total</b>	<b>22,000</b>	<b>46,080</b>	<b>63,520</b>

**THANK YOU**