

## 2. DEPARTMENTAL ACCOUNTS

### MODEL - WISE ANALYSIS OF PREVIOUS EXAMINATIONS

MODEL NO.	N-09	M-10	N-10	M-11	N-11	M-12	N-12	M-13	N-13	M-14	N-14	M-15	N-15	M-16	N-16
Model – 1	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Model – 2	-	-	8	-	08	-	-	04	-	-	08	08	-	-	-
Model – 3	-	-	-	-	-	-	-	-	12	-	-	-	-	-	8
Model – 4	-	-	-	05	-	-	08	-	-	08	-	-	04	08	-
Model – 5	-	-	-	-	-	-	-	-	04	-	-	-	-	04	-

Model – 1 : Allocation of Expenses

Model – 2 : Departmental Transfer

Model – 3 : Memorandum Trading A/c, Stocks and Mark-up A/c

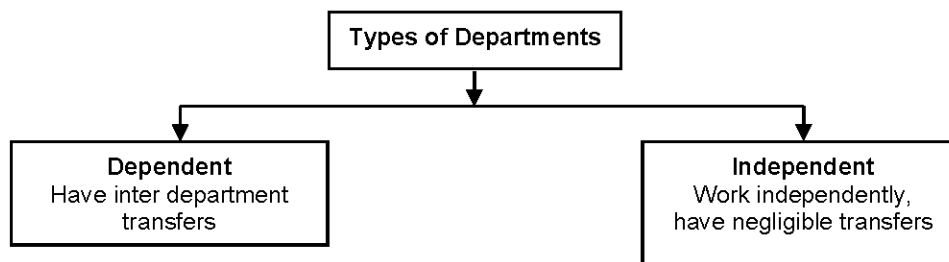
Model – 4 : Other Problems – (Special Adjustments]

Model – 5 : Theory

**Introduction:** If a business is divided into several departments, the management will be interested not only in finding out the trading results of the business as a whole, but also in ascertaining the trading results of each department individually. The method of accounting employed to obtain such results is known as departmental accounting.

#### What is Department?

Departments are different sections of same company or concern, located at same place, and doing business in different items, either connected to each other or entirely different.



**Advantages of Departmental Accounts:** The results of individual departments may be of considerable help to the management;

1. As an information for controlling the business more intelligently and effectively.  
For E.g.: All types of waste either of material or of money or readily detected.
2. In framing business policies and maximizing profits.
3. In comparing results of one department with another department.
4. In comparing the results of same department over a number of years.

**Accounting Procedure:** To obtain the results of each department separately, there are two accounting procedures.

1. To maintain separate set of books for each particular department. But usually this is not done, because it is very expensive and involves overlapping of accounts.

2. To maintain Day books and Nominal accounts in the ledger with analysis columns for each department so that departmental figures necessary for preparing departmental final accounts can be easily obtained.

**Apportionment of Common Expenses:**

No.	Items of Expenses and Income	Basis of Apportionment
1.	<b>Selling Expenses:</b> Eg: Salesmen's commission, discounts allowed (including provision for such discounts), bad debts, carriage outwards, advertisement, packing expenses etc.	Sales (turnover) of each department
2.	Carriage inward, discounts received (including provision for such discounts) etc.	Purchases of each department
3.	Rent, rates and taxes, repairs and maintenance of building, insurance of building etc.	Floor space of each department (if given, otherwise on Time basis)
4.	Depreciation on assets, fire insurance premium, repairs and maintenance of capital assets etc.	Asset values of each department, other wise on Time basis.
5.	Workmen's compensation insurance, employer's contribution to Employees State Insurance, Provident fund etc.	Wages and salaries of each department
6.	Canteen expenses, medical benefits, safety measures and such other labour welfare expenses etc.	No. of workers of each department
7.	Lighting and heating expenses Eg: Energy expenses	Consumption of energy by each department
8.	Administrative and other expenses Eg: Salaries of Managers, Directors, Common advertisement expenses.	Time basis or equally among all department.
9.	Wages / Salaries	Time allowed to each department

**Notes:**

- Expenses incurred for the direct benefit of a particular department should be allocated to the department concerned. E.g.: Special Advertisement, Insurance of Stock, Departmental Salaries.
- If expenses incurred for the benefit of more than one department are not capable of accurate measurement, should be distributed on arbitrary basis (i.e., either in turnover ratio or in the cost of goods sold etc.). E.g., Salary paid to the General Manager, Expenses of Accounts dept. etc.
- There are certain expenses and incomes, most being of financial nature, which cannot be apportioned on a suitable basis. Therefore they are recognized in the combined profit and loss account. Eg: Interest on loan, profit or loss on sale of investment etc.

**Inter-departmental Transactions:** When the department activities are inter connected then output of one department may be the input of another department. When goods or services provided by one department to another such transfers are called **Inter departmental Transactions / Transfers**. Sometimes prices are charged for goods or services transferred by one department to another department. Since each department is considered as a separate profit centre, it is necessary to have separate records for inter-departmental transfer. Generally weekly or monthly Departmental Transfer Analysis Sheet is prepared to arrange all inter departmental transfers. The sheet may be in the following form:

Date	Supplying Departments	Receiving Departments
------	-----------------------	-----------------------

2008	Dept. X	Dept. Y	Dept. Z	Dept. X	Dept. Y	Dept. Z
April 3	400	-	-	-	400	-
April 10	-	500	-	500	-	-
April 20	-	-	300	-	300	-
April 30	200	-	-	-	-	200
	600	500	300	500	700	200

At the end of the week / month, the transfer is recorded by passing the following entry:

Receiving Department Dr. [Transfer price]

To supply Department

**Basis of Inter Departmental Transfers:** Goods and services may be charged by one department to another usually on either of the following three bases.

1. Cost
2. Ruling market price
3. Cost plus agreed percentage of profit

**Elimination of unrealized profit:** When profit is added in the Inter departmental transfers the loading included in the unsold stock at the end of the year is to be excluded before final accounts are prepared so as to eliminate any anticipatory profit included there in.

**Stock Reserve:** Unrealized profit included in unsold inventory at the end of accounting period is eliminated by creating an appropriate stock reserve by debiting the combined Profit and Loss Account. The amount of stock reserve will be calculated as:

$$\frac{\text{Transfer price of unsold stock} \times \text{Profit included in transfer price}}{\text{Transfer price}}$$

**Journal Entry:** At the end of the accounting year, the following journal entry will be passed for elimination of unrealized profit (creation of stock reserve):

Profit and Loss Account      Dr.

To Stock Reserve

(Being a provision made for unrealized profit included in closing inventory)

In the beginning of the next accounting year, the aforesaid journal entry will be reversed as under:

Stock Reserve Dr.

To Profit and Loss Account

(Being provision for unrealized profit reversed.)

**Disclosure in Balance Sheet:** The unsold closing inventory acquired from another department will appear on the assets side of the balance sheet as under:

(An extract of the assets side of the balance sheet)

### Current assets

Inventory	xxx
Less: Stock reserve	<u>xxx</u>
	xxx

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**Calculation of stock reserve:**

**FIFO Basis:** It is explained assuming that there are the departments A, B & C. A transfers goods to B and B transfers goods to C.

1. **Stock of Department A:** Department A's stock will be at cost, because it does not receive goods from other departments, so no stock reserve is required.
2. **Stock of Department B:** Department B's stock will be inclusive of profit charged by Department A in its transfer to Department B. Which will be calculated as follows:

**Profit of Department A:**

Element of A's material in closing stock of Department B

$$= \frac{\text{Material Transferred from Dept. A}}{\text{Total cost of Dept. B excluding opening stock but including transfer from Dept. A}} \times \text{Closing stock of B}$$

Stock Reserve = Element of Department A's material in closing stock of B x percentage of profit charged by department A on transfer price.

**3) Stock of Department C:**

Department C's stock will be inclusive of profit of Department B as well as profit of department A which will be calculated as follows:

**Profit of Department B:**

Element of B's material in closing stock of Department

$$= \frac{\text{Material Transferred from Dept. B}}{\text{Total cost of Dept. C excluding opening stock but including transfer from Dept. B}} \times \text{Closing stock of C}$$

Stock reserve (Department B's profit) = Element of department B's material in closing stock of C x percentage of profit charged by department B on transfer price.

**Profit of Department A:**

Element of A's material in closing stock of Department C

$$= \frac{\text{Material Transferred from Dept. A to B}}{\text{Total cost of Dept. B (excluding opening stock)}} \times \text{Element of B's material in cl. stock of Dept. C (-) Profit in it of Dept. B}$$

Stock reserve (Department A's profit) = Element of department A's material in closing stock of C x percentage of profit charged by department A to B on transfer price.

Total stock reserve = Profit of Dept. A + Profit of Dept. B included in closing stock of C

**Memorandum Stock Account and Memorandum Mark-up Account:** For an adequate check on department stock, sometimes a Memorandum Stock Account is maintained at selling price /inflated price. A Memorandum Mark-up Account is also maintained for the loading (selling price – cost price). Departmental gross profit comes out from the Memorandum Mark-up Account. This Account can be compared with the Branch Adjustment Account which is prepared when goods are sent to branch at inflated price.

This method helps to achieve effective control of stock movements of various departments.

**Accounting Treatment:**

1. The opening stock is brought down on the debit side of the Memorandum Stock Account at selling price (cost + mark-up).

Amount of mark-down on opening stock is brought down on the credit side of the Memorandum Stock Account.

2. The loading on opening stock is brought down on the credit side of the Memorandum Mark-up Account.

Amount of mark-down on opening stock is brought down on the debit side of the Memorandum Stock Account.

3. **For Goods purchased:**

Memorandum Stock Account

Dr. [Selling price]

To Purchase Account

[Cost price]

- To Memorandum Mark-up Account [Loading]
4. For sale of goods:
- Sales Account Dr. [Selling price]
- To Memorandum Stock Account [Selling price]
5. For transfer of goods by one department to another (say by X to Y)
- Y's Memorandum Stock Account Dr. [Cost price]
- To X's Memorandum Stock Account [Cost price]
6. For loading on transfer by X Department:
- Memorandum Mark-up Account Dr. [Loading of X Department]
- To Memorandum Stock Account
7. For loading on goods received by Y Department:
- Memorandum Stock Account Dr. [Loading of Y Department]
- To Memorandum Mark-up Account
8. Sometimes goods may have to be marked-down due to competition or due to deterioration or to push up sales of goods lying in stock. In such case, the entry will be:
- Memorandum Mark-up Account Dr. [Mark-down]
- To Memorandum Stock Account
9. Sometimes goods may have to be marked-down due to shortage of goods. In such case, the entry will be:
- Profit & Loss A/c Dr. [Cost]
- Memorandum Mark-up Account Dr. [Mark-down]
- To Memorandum Stock Account [Selling price]
10. For loss of stock:
- Profit and Loss Account Dr. [Cost price]
- Memorandum Markup Account Dr. [Loading]
- To Memorandum Stock Account [Selling price]
11. For mark-down on goods lying in stock:
- Memorandum Mark-up Account Dr.
- To Memorandum Stock Account

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Now, the balance of Memorandum Stock Account will represent the closing stock at selling price. Loading on closing stock is to be carried forward. The balance of Memorandum Mark-up Account will represent gross profit.

### PROBLEMS FOR CLASSROOM DISCUSSION

**Problem 1: Allocation of common expenses while preparing Departmental Accounts:**

M/s Omega is a departmental store having three departments X, Y and Z. The information regarding three departments for the year ended 31st March, 2013 are given below:

Particulars	X (Rs.)	Y (Rs.)	Z (Rs.)
Opening Stock	36,000	24,000	20,000
Purchases	1,32,000	88,000	44,000
Debtors at end	15,000	10,000	10,000

Sales	1,80,000	1,35,000	90,000
Closing stock	45,000	17,500	21,000
Value of furniture in each department	20,000	20,000	10,000
Floor space occupied by each department (in sq. ft.)	3,000	2,500	2,000
Number of employees in each Department (in no's)	25	20	15
Electricity consumed by each department (in units)	300	200	100

The balances of other revenue items in the books for the year are given below:

Particulars	Amount (Rs.)
Carriage inwards	3,000
Carriage outwards	2,700
Salaries	48,000
Advertisement	2,700
Discount allowed	2,250
Discount received	1,800
Rent, Rates and Taxes	7,500
Depreciation on furniture	1,000
Electricity expenses	3,000
Labour welfare expenses	2,400

You are required to prepare Departmental Trading and Profit and Loss Account for the year ended 31st March, 2013 after providing provision for Bad Debts at 5%.

(Nov - 2013 – RTP, SM)

(Ans: Net profit X – Rs.26,350; Y – Rs.16,350, Z – Rs.29,300, Total Rs.72,000)

(Solve problem no 1 and 2 of assignment problems as rework)

Note: \_\_\_\_\_

**Problem 2: (PRINTED SOLUTION AVAILABLE)** Treatment of sales at normal prices and actual prices while ascertainment of cost of sales:

X Limited has three departments A, B and C. From the particulars given below compute:

(a) The values of stock as on 31st December, 2012 and

(b) The departmental results.

(i)	A	B	C
Stock as on 1 <sup>st</sup> Jan 2012	24,000	36,000	12,000
Purchases	1,46,000	1,24,000	48,000
Actual sales	1,72,500	1,59,400	74,600
G.P on normal selling prices	20%	25%	33.33%

(ii) During the year certain items were sold at discount and these discounts were reflected in the values of sales shown above. The items sold at discount were:

Particulars	Dept A (Rs.)	Dept B (Rs.)	Dept C (Rs.)
Sales at normal prices	10,000	3,000	1,000
Sales at actual prices	7,500	2,400	600

(PM)

(Ans.: Closing Stock – A: 30,000; B: 40,000; C: 10,000; Gross Profit – A: 32,500;  
B: 39,400; C: 24,600)

(Solve problem no 3 of assignment problems as rework)

Note: \_\_\_\_\_

**Problem 3: (PRINTED SOLUTION AVAILABLE)** Calculation of rate of gross profit and cost of production: The following purchases were made by a business house having three departments.

Dept.	Purchase
Department A	1000 Units
Department B	2000 Units
Department C	2400 Units

At a total cost of Rs.1,00,000. Stocks on 1<sup>st</sup> January were: Dept. A: 120 units; Dept. B: 80 units; & Dept. C: 152 units. The sales were:

Dept.	Sales
A	1020 units at Rs.20.00 each
B	1920 units at Rs.22.50 each.
C	2496 units at Rs.25.00 each.

The rate of gross profits is the same in each case. Prepare Departmental Trading Accounts.

(M - 11)

(Solve problem no 4 of assignment problems as rework)

(Ans.: Gross Profit – A: 4,080, B: 8,640, C: 12,480)

Note: \_\_\_\_\_

**Problem 4: (PRINTED SOLUTION AVAILABLE)** Calculation of Departmental Managers Commission:

Departmental R sells goods to Department S at a profit of 25% on cost and department T at 10% profit on cost. Department S sells goods to R and T at a profit of 15% and 20% on sales irrespectively. Department T charges 20% and 25% profit on cost to department R and S respectively.

Department managers are entitled to 10% commission on net profit subject to unrealized profit on departmental sales being eliminated. Departmental profits after charging manager's commission, but before adjustment of unrealized profit are as under:

Department	R	Rs.54,000
Department	S	Rs.40,500
Department	T	Rs.27,000

Stocks lying at different departments at the end of the year are as under:

Particulars	Dept. R (Rs.)	Dept. S (Rs.)	Dept. T (Rs.)
Transfer from department R	-	22,500	16,500
Transfer from department S	21,000	-	18,000
Transfer from department T	9,000	7,500	-

Find out the correct departmental profits charging manager's commission

(M - 13, 2014 Similar Problem, PM)

(Ans: Profit to Dept R 48,600, Dept S 34,425, Dept T 24,300)

(Solve problem no 5 and 6 of assignment problems as rework)

Note: \_\_\_\_\_

**Problem 5: Inter-Departmental Transfers:** Mega Ltd. has two departments, A and B. From the following particulars, prepare departmental Trading A/c and General Profit & Loss Account for the year ended 31st March, 2014.

Particulars	Amount (Rs.)	
	Department A	Department B
Opening stock as on 01.04.2013 (at cost)	70,000	54,000
Purchases	3,92,000	2,98,000
Carriage Inward	6,000	9,000
Wages	54,000	36,000
Sales	5,72,000	4,60,000
<b>Purchased Goods Transferred:</b>		
By Department B to A	50,000	
By Department A to B		36,000
<b>Finished Goods Transferred:</b>		
By Department B to A	1,50,000	
By Department A to B		1,75,000
<b>Return of Finished Goods:</b>		
By Department B to A	45,000	
By Department A to B		32,000
<b>Closing Stock:</b>		
Purchased Goods	24,000	30,000
Finished Goods	1,02,000	62,000

Purchased goods have been transferred mutually at their respective departmental purchase cost and finished goods at departmental market price and that 30% of the closing finished stock with each department represents finished goods received from the other department.

(PM) (Ans: Gross profit of department A&B is Rs.1,74,000 & Rs.1,57,000 and Net profit Rs.3,18,078)

(Solve problem no 7 of assignment problems as rework)

Note: \_\_\_\_\_

**Problem 6: (PRINTED SOLUTION AVAILABLE)** Preparation of Departmental Trading and Profit and Loss Account, Profit and Loss Appropriation Account: Messrs D, B and R carried on a business of Drapers and Tailors in Delhi; D was in-charge of Department "A" dealing in cloth, B of department "B" for selling garments and R of Department "C" the tailoring section. It had been agreed that each of the three partners would receive 75% of the profits disclosed by the accounts of the department of which he was in-charge and the balance of the combined profits would be shared in the proportion: D 1/2, B 1/4, and R 1/4. The following is the Trading and Profit and Loss Account of the firm for the six months ended March 31, 2013.

Particulars	Rs.	Rs.	Particulars	Rs.	Rs.
<b>To Opening Stock:</b>			<b>By Sales :</b>		
Cloth (A)	37,890		Cloth (A)	1,80,000	
Ready-made Garments (B)	24,000		Ready-made Garments (B)	1,30,000	
Tailoring Jobs (C)	20,000	81,890	Tailoring Jobs (C)	90,000	4,00,000



To Purchases :			By Discount received		800
Cloth (A)	1,40,700		By Closing Stock:		
Ready-made Garments (B)	80,600		Cloth (A)	45,100	
Tailoring Goods (C)	44,400	2,65,700	Ready-made Garments (B)	22,300	
To Salaries & Wages		48,000	Tailoring Jobs (C) [including Rs. 5,700 for Goods transferred from department (A)]	21,600	89,000
To Advertising		2,400			
To Rent		10,800			
To Discount allowed		1,200			
To Sundry Exp.		12,000			
To Depreciation on Furniture & Fittings		750			
To Net Profit		67,060			
		<b>4,89,800</b>			<b>4,89,800</b>

After consideration of the following, prepare (i) Departmental Trading and Profit and Loss Account and (ii) Profit and Loss Appropriation Account.

1. Cloth of the value of Rs. 10,700 and other goods of the value of Rs. 600 were transferred at selling price by Departments A and B respectively to Department C.
2. Cloth and garments are sold in the show-room. Tailoring work is carried out in the workshop.
3. The details of salaries and wages were as follows:
  - (a) General Office 50%, show-room 25% and 25% for workshop, which is for tailoring.
  - (b) Allocate General Office Expenses, in the proportion of 3:2:1 among the Departments A,B,C.
  - (c) Distribute show-room expenses in the proportion of 1:2 between Departments A & B.
4. The workshop rent is Rs. 1,000 per month. The rent of the General Office and Show room is to be divided equally between Departments A and B.
5. Depreciation charges are to be allocated equally amongst the three Departments.
6. All other expenses are to be allocated on the basis of turnover.
7. Discounts received are to be credited to the three Departments as follows: A: Rs. 400; B: Rs. 250; C: Rs. 150.
8. The opening stock of Department C does not include any goods transferred from Dept. A.

**(SM) (Solve problem no 8 of assignment problems as rework)**

*(Ans: Total gross profit Rs.1,29,410, Total net profit Rs.67,060)*

**Note:** \_\_\_\_\_

**Problem 7: Advanced (comprehensive of inter-departmental transfers and allocation of expenses):** Alpha Ltd. has a factory with two manufacturing departments X & Y. Part of the output of department X is transferred to department Y for further processing and the balance is directly transferred to selling department. The entire production of Department Y is directly transferred to the selling department. Inter-departmental stock transfers are made as (a) X department to Y department at 33.33% over departmental cost; (b) X department to selling

department at 50% over departmental cost; (c) Y department to selling department at 25% over departmental cost. The following information is given for the year ended 31-3-2013.

Particulars	Dept. X		Dept. Y		Sales Dept.	
	Units	Rs.	Units	Rs.	Units	Rs.
<b>Opening Stock:</b>						
Finished Goods	60	60,000	20	40,000	50	1,28,000
Raw materials	-	-	-	-	-	-
Raw materials consumed	-	1,82,000	-	20,000	-	-
Labour charge	-	70,000	-	32,000	-	-
Sales	-	-	-	-	120	4,80,000
<b>Closing Stock:</b>						
Finished Goods	40	-	50	-	60	-

Out of the total transfer by X department 30 units were transferred to selling department, while the remaining to department Y. The per unit material and labour consumption of X department on production to be transferred directly to the selling department is 300% of the labour and material consumption on units transferred to Y department. General administration expenses Rs.1,80,000. Prepare Departmental Trading A/c and Profit & loss A/c.

(SM) (Solve problem no 9 of assignment problems as rework)

(Ans.: Gross Profit – X: 1,06,000, Y: 50,000, Sales Dept: 1,20,000)

Note: \_\_\_\_\_

#### Problem 8: Comprehensive of Inter departmental transfers and allocation of expenses:

M/s Complex has 3 departments, A, B, C. The following information is provided:

Particulars	A (Rs.)	B (Rs.)	C (Rs.)
Opening Stock	3,000	4,000	6,000
Consumption of direct materials	8,000	12,000	-
Wages	5,000	10,000	-
Closing Stock	4,000	14,000	8,000
Sales	-	-	34,000

Stock of each department is valued at cost to the department concerned, Stocks of A department are transferred to B at a margin of 50% above departmental cost, Stocks of B department are transferred to C department at a margin of 10% above departmental cost.

Other expenses were:

Particulars	Amount
Salaries	2,000
Printing & Stationery	1,000
Rent	6,000
Interest paid	4,000
Depreciation	3,000

Allocate expenses in the ratio of departmental gross profit. Opening figures of reserves for unrealised profits on departmental stock were:

Department B Rs.1,000

Department C Rs.2,000

Prepare Departmental Trading and Profit & Loss Accounts for the year ending March 31<sup>st</sup>, 2013 considering that closing stock of each department consists of only finished goods. (SM)

(Ans: Net loss for Dept. A – Rs.2,000, Dept. B – Rs.1,000, Dept. C – Rs.1,000 & Balance transfer to Profit and Loss A/c - Rs.4,918 (loss))

(Solve problem no 10 of assignment problems as rework)

Note: \_\_\_\_\_

**Problem 9: Preparation of Trading A/c, Memorandum Stock A/c and Memorandum Mark-up Account:** Gram Udyog, a retail store, has two departments, Khadi and Silks for each of which stock account and memorandum mark-up accounts are kept. All the goods supplied to each department are debited to the stock account at cost plus a 'mark-up' which together make up the selling-price of the goods and in the account the sale proceeds of the goods are credited. The amount of 'mark-up' is credited to the Departmental mark-up account. If the selling price of any goods is reduced below its normal selling price, the reduction 'mark down' is adjusted both in the stock account and the Departmental 'mark-up' account. The rate of mark-up for Khadi Department is 33.33% of the cost and for Silks Department it is 50% of the cost. The following figures have been taken from the books for the year ended 31-12-2002. (N 16 8M)

Particulars	Khadi Dept.	Silks Dept.
Stock as on Jan. 1st at cost	10,500	18,600
Purchases	75,900	93,400
Sales	95,600	1,25,000

- The stock of Khadi on 1-1-2002 included goods the selling price of which had been marked down by Rs.1,260. These goods were sold during the year at the reduced prices.
- Certain stock of the value of Rs.6,900 purchased for the Khadi Dept. were later in the year transferred to the Silks Dept. and sold for Rs.10,350. As a result though cost of the goods is included in the Khadi Dept. the sale proceeds have been credited to the Silks Dept.
- During the year 2002 to promote sales the goods are marked down as follows:

Dept.	Cost	Mark Down
Khadi	5,600	360
Silk	10,000	2,000

All the goods marked down, were sold except silks of the value of Rs.5,000 marked down by 1,000.

- At the time of stock-taking on 31-12-2002 it was discovered that Khadi Cloth at the cost of Rs.390 was missing and it was decided that the amount be written off.

You are required to prepare in a columnar form for both departments: The Memorandum stock A/c, Memorandum mark-up A/c. (SM)

(Ans.: Silk Mark-up account – P & L Account Balance – Rs.41,000)

(Khadi Mark-up account – P & L Account Balance – Rs.22,685)

(Solve problem no 11 of assignment problems as rework)

Note: \_\_\_\_\_

## ASSIGNMENT PROBLEMS

**Problem 1: Allocation of common expenses while preparing departmental accounts:** The Trading and Profit & Loss A/c of Radio and Gramophone Equipment Co., for the six months ended 31<sup>st</sup> March, 2013 is presented to you in the following form:

Particulars	Rs.	Particulars	Rs.
<b>Purchases:</b>		<b>Sales:</b>	
Radios (A)	1,40,700	Radios (A)	1,50,000
Gramophones (B)	90,600	Gramophones (B)	1,00,000
Spare parts for servicing (C)	64,400	Receipts from servicing & Repair jobs (C)	25,000
Salaries & Wages	48,000	<b>Stocks on 31.3.2013:</b>	
Rent	10,800	Radios (A)	60,100
Sundry exp.	11,000	Gramophones (B)	20,300
Profit	34,500	Spare parts for servicing (C)	44,600
	<b>4,00,000</b>		<b>4,00,000</b>

Prepare Departmental Accounts for each of the three departments A, B and C mentioned above after taking into consideration the following information:

(a) Radios and Gramophones are sold at the showroom; servicing and repairs are carried out at the workshop.

(b) Salaries & wages comprise that Showroom  $\frac{3}{4}$ ; Workshop  $\frac{1}{4}$ ;

It was decided to allocate the show room salaries and wages in the ratio 1:2 between the departments A and B. The workshop rent is Rs.500 per month. The rent of the Showroom is to be divided equally between Departments A & B. Sundry exp. are to be allocated on the basis of the turnover of each department.

(Ans.: Net Profit – A: 47,500, B: (2,200), C: (10,800))

**Problem 2: Allocation of common expenses and preparation of Balance sheet:** Following is the Trial Balance of Mr. Mohan as on 31.03.2015:

	Particulars	Debit(Rs.)	Credit(Rs.)
Capital Account			40,000
Drawing Account		1500	
Opening stock	Department A Department B Department C	8,500 5,700 1,200	
Purchases	Department A Department B Department C	22,000 17,000 8,000	
Sales	Department A Department B Department C		54,000 33,000 21,000
Sales returns	Department A Department B Department C	4,000 3,000 1,000	
Freight and Carriage	Department A Department B Department C	1,400 800 200	
Furniture and fixtures		4,600	
Plant and Machinery		20,000	
Motor Vehicles		40,000	
Sundry Debtors		12,200	
Sundry Creditors			15,000
Salaries		4,500	
Power and water		1,200	

Telephone charges		2,100	
Bad Debts		750	
Rent and taxes		6,000	
Insurance		1,500	
Wages	Department A Department B Department C	800 550 150	
Printing and Stationeries		2,000	
Advertising		3,500	
Bank Overdraft			12,000
Cash in hand		850	
<b>Total</b>		<b>1,75,000</b>	<b>1,75,000</b>

You are required to prepare Department Trading, Profit and Loss Account and the Balance Sheet taking into account the following adjustments:

- Outstanding Wages: Department B- Rs. 150, Department C – Rs. 50.
- Depreciate Plant and Machinery and Motor Vehicles at the rate of 10%.
- Each Department shall share all expenses in proportion to their sales.
- Closing Stock: Department A - Rs. 3,500, Department B - Rs. 2,000, Department C - Rs. 1,500.

(RTP M - 16)

(Ans.: Net Profit – A:7,025, C:6,390 Net loss – B:465) Balance sheet Total:78650)

**Problem-3: Treatment of Sales at Normal prices and Actual prices while ascertainment of cost of sales:** Sona Ltd has three departments P, Q & R. From the particulars given below, compute:

- The departmental results;
- The values of stock as on 31st Dec.2014;

i)

Particulars	P(Rs.)	Q (Rs.)	R (Rs.)
Stock (on 1.1. 2014)	30,000	45,000	15,000
Purchases	1,60,000	1,30,000	60,000
Actual sales	1,88,000	1,66,000	93,000
Gross Profit on normal selling price	25%	33.33%	40%

- During the year 2014 some items were sold at discount and these discounts were reflected in the above sales value. The details are given below:

Particulars	P (Rs.)	Q (Rs.)	R (Rs.)
Sales at normal price	15,000	8,000	6,000
Sales at actual price	11,000	6,000	4,000

(Nov-2015-6(b))

(Ans.: Closing Stock – P: 46,000; Q: 63,000; R:18,000; Gross Profit – P: 44,000; Q: 54,000; R: 36,000)

**Problem 4: Calculation of Rate of Gross Profit in case of profit on sales is informing all departments:** Z ltd has three departments and submits the following information for the year ending on 31<sup>st</sup> march, 2011.

Particulars	A	B	C	TOTAL
Purchases(Units)	6,000	12,000	14,400	
Purchases (Rs.)				6,00,000
Sales (Units)	6,120	11,520	14,976	

Selling price (Per unit - Rs.)	40	45	50	
Closing stock(Units)	600	960	36	

You are required to prepare departmental trading account of Z LTD., assuming that the rate of profit on sales is uniform in each case. (J – 09, PM)

(Ans.: Gross profit to Dept A 1,46,880, B 3,11,040, C 4,49,280)

**Problem 5: Calculation of Departmental Managers Commission:** Department P sells goods to Department S at a profit of 25% on cost and to Department Q at a profit of 15% on cost. Department S sells goods to P and Q at a profit of 20% and 30% on sales respectively. Department Q sells goods to P and S at 20% and 10% profit on cost respectively.

Departmental Managers are entitled to 10% commission on net profit subject to unrealized profit on departmental sales being eliminated. Departmental profits after charging Manager's commission, but before adjustment of unrealized profits are as below:

Department	Rs.
Department P	90,000
Department S	60,000
Department Q	45,000

Stock lying at different Departments at the end of the year are as below:

	Figures in Rs.		
	DEPARTMENTS		
	P	S	Q
Transfer from P	-	18,000	14,000
Transfer from S	48,000	-	38,000
Transfer from Q	12,000	8,000	-

Find out correct Departmental Profits after charging Managers' Commission.

(SM)(Ans: Profits are P=85,117; S=41,100; Q=42,546)

**Problem - 6: Calculation of Departmental Managers Commission subject to Minimum**

M/s P and Co., had four departments A,B,C and D. Each department being managed by manager whose commission was 10% of the respective departmental profit, subject to a minimum of Rs. 6,000 in each case. Interdepartmental transfers took place at a 'loaded' price as follows:

From Department A to Department B 10% above cost

From Department A to Department D 20% above cost

From Department C to Department D 20% above cost

From Department C to Department B 20% above cost

For the year ending on 31st March, 2014 the firm had already prepared and closed the departmental Trading and Profit and Loss Account. Subsequently, it was discovered that the closing stocks of departments had included interdepartmentally transferred goods at loaded price instead of cost price. From the following information prepare a statement re-computing the departmental profit or loss:

	Dept. A (Rs.)	Dept. B (Rs.)	Dept. C (Rs.)	Dept D (Rs.)
Final Profit (Loss)	(38,000)	50,400	72,000	1,08,000

Inter departmental transfers included at loaded price in the departmental stock		70,000 (Rs. 22,000 from Dept. A and Rs. 48,000 from Dept. C)	-	4,800 (Rs. 3,600 from Dept. C and Rs. 1,200 from Dept. A)
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(MTP N15-SR1, MTP M15-SR2, RTP M - 14)

(Ans: Profits are B=50400; C=64260; D=1,08,000; Loss A=40,200)

**Problem 7: Inter-Departmental Transfers:** M/S X has two departments, A and B, From the following particulars prepare the consolidated Trading A/c & Departmental Trading A/c for the year ending 31st Dec. 2012:

Particulars	A	B
Opening stock (at Cost)	20,000	12,000
Purchases	92,000	68,000
Sales	1,40,000	1,12,000
Wages	12,000	8,000
Carriage	2,000	2,000
<b>Closing stock:</b>		
Purchased goods	4,500	6,000
Finished goods	24,000	14,000
<b>Purchased goods transferred:</b>		
By B to A	10,000	-
By A to B	-	8,000
<b>Finished goods transferred:</b>		
By A to B	-	35,000
By B to A	40,000	-
<b>Return of finished goods:</b>		
By A to B	-	10,000
By B to A	7,000	-

You are informed that purchased goods have been transferred mutually at their respective departmental purchase cost and finished goods at dept. market price and that 20% of the finished stock (closing) at each dept. represented finished goods received from the other department.

(M - 10 Similar Problem, SM)

(Ans.: Gross Profit – A: 38,500, B: 46,000, total: 84,500)

**Problem 8: Preparation of Departmental Trading and Profit and Loss Account:** M/S AM enterprises had two departments, cloth and readymade clothes. The readymade clothes were made by the firm itself out of the cloth supplied by the cloth departments at its usual selling price. From the following figures, prepare departmental trading and profit & loss account for the year ended 31<sup>st</sup> march 2012.

Particulars	Cloth department (Rs.)	Readymade clothes department (Rs.)
Opening stock on 1 <sup>st</sup> april, 2011	31,50,000	5,32,000
Purchases	2,10,00,000	1,68,000
Sales	2,31,00,000	47,25,000
Transfer to readymade clothes department	31,50,000	----
Manufacturing expenses	----	6,30,000

Selling expenses	2,10,000	73,500
Rent & warehousing	8,40,000	5,60,000
Stock on 31 <sup>st</sup> march, 2012	21,00,000	6,72,000

In addition to above, the following information is made available for necessary consideration:  
The stock in the readymade clothes department may be considered as consisting of 75% cloth and 25% other expenses. The cloth department earned a gross profit at rate of 15% in 2010-2011. General expenses of the business as a whole amount to Rs.10,85,000.

(Nov-2011, May-15, PM)

(Ans.: Net profit to Dept cloth 31,50,000, Dept readymade 2,83,500)

**Problem 9: Computation of stock reserve on difference in stock:** The following balances were extracted from the books of M/s Division. You are required to prepare Departmental Trading Account and Profit and Loss account for the year ended 31st December, 2014 after adjusting the unrealized department profits if any.

	Dept. A (Rs.)	Dept. B (Rs.)
Opening Stock	50,000	40,000
Purchases	6,50,000	9,10,000
Sales	10,00,000	15,00,000

General expenses incurred for both the departments were Rs. 1,25,000 and you are also supplied with the following information: (a) Closing stock of Department A Rs. 1,00,000 including goods from Department B for Rs. 20,000 at cost of Department A. (b) Closing stock of Department B Rs. 2,00,000 including goods from Department A for Rs. 30,000 at cost to Department B. (c) Opening stock of Department A and Department B include goods of the value of Rs. 10,000 and Rs. 15,000 taken from Department B and Department A respectively at cost to transferee departments. (d) The rate of gross profit is uniform from year to year.

(RTP NOV-11, RTP May-15)

(Ans.: Net profit to Dept A=3,50,000, Dept B=6,75,000 General P&L Profit:10,14,000)

**Problem 10: Comprehensive of Inter departmental transfers and allocation of expenses:** FGH Ltd has three departments I.J.K. The following information is provided for the year ended 31.03.2012.

Particulars	I (Rs.)	J (Rs.)	K (Rs.)
Opening stock	5,000	8,000	19,000
Opening reserve for unrealized profit	-	2,000	3,000
Material consumed	16,000	20,000	-
Direct labour	9,000	10,000	-
Closing stock	5,000	20,000	5,000
Sales	-	-	80,000
Area occupied (Sq. mtr.)	2,500	1,500	1,000
No of employees	30	20	10

Stocks of each department are valued at costs to the department concerned. Stocks of I are transferred to J at cost plus 20% and stocks of J are transferred to K at a gross profit of 20% on sales. Other common expenses are salaries and staff welfare Rs.18,000 rent Rs.6,000.

Prepare departmental trading, profit and loss account for the year ending 31.03.2012. (PM)

(Ans.: Net profit to Dept J 4,200 K 1,800, Net loss to Dept I 7,000) (Nov-2004)

**Problem 11: Preparation of Trading A/c, Memorandum Stock A/c and Memorandum Mark-up Account:** Martis Ltd. has several departments. Goods supplied to each department are debited to a Memorandum Departmental Stock Account at cost, plus a fixed percentage (mark-up) to give the normal selling price. The mark-up is credited to a memorandum departmental 'Mark-up account', any reduction in selling prices (mark-down) will require adjustment in the stock account



and in mark-up account. The mark-up for Department A for the last three years has been 25%. Figures relevant to Department A for the year ended 31st March, 2013 were as follows:

Opening stock as on 1st April, 2012, at cost Rs.65,000

Purchase at cost Rs.2,00,000

Sales Rs.3,00,000

It is further ascertained that :

1. Shortage of stock found in the year ending 31.03.2013, costing Rs.1,000 were written off.
2. Opening stock on 01.04.12 including goods costing Rs.6,000 had been sold during the year and had been marked down in the selling price by 600. The remaining stock had been sold during the year.
3. Goods purchased during the year were marked down by Rs. 1,200 from a cost of Rs.15,000. Marked-down stock costing Rs. 5,000 remained unsold on 31.03.13.
4. The departmental closing stock is to be valued at cost subject to adjustment for mark-up and mark-down.

You are required to prepare:

1. A Departmental Trading Account for Department A for the year ended 31st March, 2013 in the books of Head Office.
2. A Memorandum Stock Account for the year.
3. A Memorandum Mark-up Account for the year. (PM)

(Ans: (i) Gross Profit – Rs.58,880, (ii) Balance in Memorandum Stock Account Rs.28,200, (iii) Balance in Memorandum markup Account Rs.5,320)

## THEORY QUESTIONS

1. Write short notes on the following:

Basis of allocation of common expenditure among different departments. (N - 98, 2013)

2. Explain the distinguishing features between departmental accounts and branch accounts and the advantages derived from departmental accounts. (N - 85)

3. State the basis on which the following common expenses, the benefit of which is shared by all departments is distributed among the departments.

- a) Rent, Rates and Taxes, Insurance of Building
- b) Selling expenses such as discount, bad debts, selling commission and other such selling expenses.
- c) Carriage inward
- d) Depreciation
- e) Interest on loan
- f) Profit or loss on sale of investment
- g) Wages
- h) Lighting and heating expenses. (Nov. 2013)

## ABC ANALYSIS

	A Category	B Category	C Category
Classroom Problems	3,4,5,6,7,8	1,2	9
Assignment Problems	3,4,5,7,8,10	1,2,6,9	11

Verified by: G.S.R Sir

Executed by: Narendra

**THE END**

MASTER MINDS