

## 2. DEPARTMENTAL ACCOUNTS

### PROBLEM NO: 1

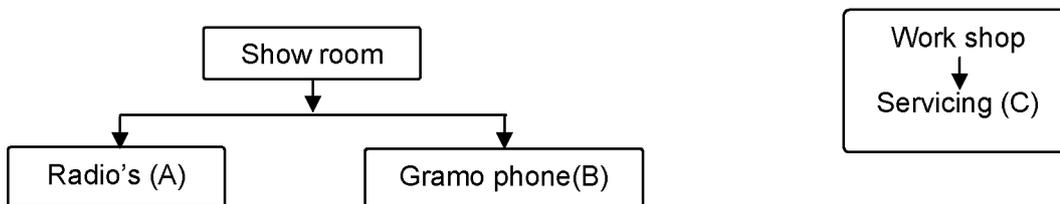
Department Trading & P & L A/c of Radio & gramophone Equipment Co.

Dr.

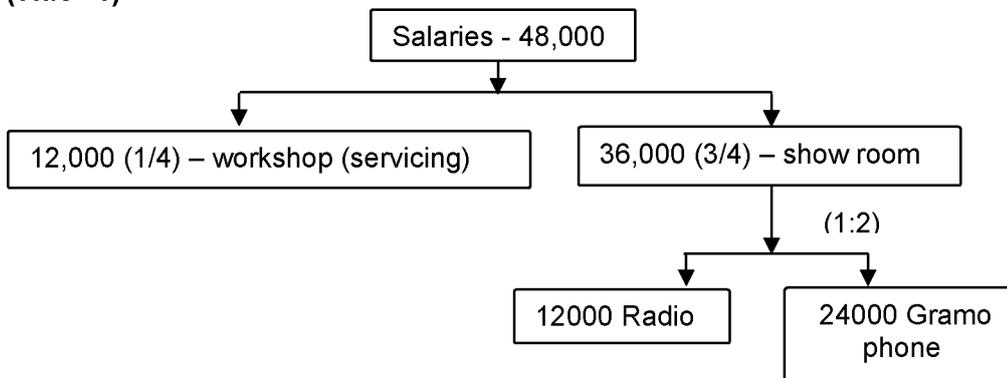
Cr.

Particulars	Radio Rs.	Gramo phone Rs.	Service Rs.	Particular	Radio Rs.	Grano Phone Rs.	Service Rs.
To purchases	1,40,700	90,600	64,400	By sales	1,50,000	1,00,000	25,000
To Salaries (WN-1)	12,000	24,000	12,000	By closing stock	60,100	20,300	44,600
To Rent (WN-2)	3,900	3,900	3,000				
To Sundry Expenses (WN-3)	6,000	4000	1000				
To Net Profit / Loss	47,500	(2,200)	(10,800)				
	<b>2,10,100</b>	<b>1,20,300</b>	<b>69,600</b>		<b>2,10,100</b>	<b>1,20,300</b>	<b>69,600</b>

#### WORKING NOTE:



(W.N - 1)



(W.N-2)

Rent of workshop = 500 p.m x 6m = 3000

Actual Rent = 10,800

(-) work shop = 3000

7800

Radio    Gramo phone  
3900    3900

Turnover →    A            B            C  
1,50,000    1,00,000    25,000  
6            4            1

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(W.N - 3) Sundry Expresses →  $11,000 \times \frac{6}{11}$ ,  $11,000 \times \frac{4}{11}$ ,  $11,000 \times \frac{1}{11}$

- Radio = Rs. 11,000 X  $\frac{6}{11}$  = Rs. 6,000
- Gramo = Rs. 11,000 X  $\frac{4}{11}$  = Rs. 4,000
- Service = Rs. 11,000 X  $\frac{1}{11}$  = Rs. 1,000

**PROBLEM NO: 2**

## Departmental profit and loss A/c

Dr.

Cr.

Particulars	A (Rs.)	B (Rs.)	C (Rs.)	Particulars	A (Rs.)	B (Rs.)	C (Rs.)
To Opening stock	8,500	5,700	1,200	By sales less returns	50,000	30,000	20,000
To Purchases	22,000	17,000	8,000	By closing stock	3500	2,000	1,500
To Freight	1,400	800	200				
To wages	800	700	200				
To gross profit	20,800	7,800	11,900		53,500	32,000	21,500
	53,500	32,000	21,500	By Gross profit	20,800	7,800	11,900
To Salaries	2250	1350	900	By Net loss	-	465	-
To Power & water	600	360	240				
To Telephone	1050	630	420				
To Bad Debts	375	225	150				
To Rent	3,000	1,800	1,200				
To Insurance	750	450	300				
To Printing	1,000	600	400				
To Advertisement	1750	1050	700				
To Depreciation (2000 + 4000)	3,000	1800	1,200				
To Net profit	7025	-	6390				
	<b>20,800</b>	<b>8,265</b>	<b>11,900</b>		<b>20,800</b>	<b>8265</b>	<b>11,900</b>

## Balance sheet 31-3-2015

Liabilities	Amount (Rs.)	Assets	Amount (Rs.)
Creditors	15,000	Furniture's & fixtures	4,600
Bank O.D	12,000	Plant & machinery	20,000
Outstanding wages	200	Less: Depreciation	(2000)
Capital	40,000	Motor vehicles	40,000
Add profit		Less: Depreciation	(4,000)
(7025 + 6390)	13,415	Debtors	12,200
Less Loss	(465)	Cash in hand	850
	52,950	Stock	7,000
Less drawings	(1500)		
	<b>51,450</b>		
	<b>78,650</b>		<b>78,650</b>

**PROBLEM NO: 3**

## Valuation of closing stock

## a) Departmental Trading Accounts

Particulars	A (Rs.)	B (Rs.)	C (Rs.)	Particulars	A (Rs.)	B (Rs.)	C (Rs.)
To op stock	30,000	45,000	15,000	By sales	1,88,000	1,66,000	93,000
To Purchases	1,60,000	1,30,000	60,000	By closing stock	46,000	63,000	18,000
To Gross profit	44,000	54,000	36,000				
	<b>2,34,000</b>	<b>2,29,000</b>	<b>1,11,000</b>		<b>2,34,000</b>	<b>2,29,000</b>	<b>1,11,000</b>

## b) Memorandum trading A/c

Particulars	A (Rs.)	B (Rs.)	C (Rs.)	Particulars	A (Rs.)	B (Rs.)	C (Rs.)
To op. stock	30,000	45,000	15,000	By sales normal sales (actual sales + disk)	1,92,000	1,68,000	95,000
To Purchases	1,60,000	1,30,00	60,000	By Closing stock (Bal. Fig)	46,000	63,000	18,000
To Gross profit							
(Sales X Gp %)	48,000	56,000	38,000				
	<b>2,38,000</b>	<b>2,31,000</b>	<b>1,13,000</b>		<b>2,38,000</b>	<b>2,31,000</b>	<b>1,13,000</b>

## Calculation of discount

Particulars	A (Rs.)	B (Rs.)	C (Rs.)
Normal sales	15,000	8,000	6,000
Less: Actual sales	11,000	6,000	4,000
	4,000	2,000	2,000

**PROBLEM NO: 4**

In the books of Z Ltd  
Departmental Trading A/c

Dr.

Cr.

Particulars	A (Rs.)	B (Rs.)	C (Rs.)	Particulars	A (Rs.)	B (Rs.)	C (Rs.)
To opening stock [W.N:2]	11,520	8,640	12,240	By Sales	2,44,800	5,18,400	7,48,800
To Purchases [W.N:1]	96000	2,16,000	2,88,000	By closing stock	9,600	17,280	720
To Gross profit [Bal. fig]	1,46,880	3,11,040	4,49,280				
	<b>2,54,400</b>	<b>5,35,680</b>	<b>7,49,520</b>		<b>2,54,400</b>	<b>5,35,680</b>	<b>7,49,520</b>

**Working Notes:**

i. If entire purchase units sold

Dept – A (6000 x 40) – 2,40,000

Dept – B (12000 x 45) – 5,40,000

Dept – C (14400 x 50) – 7,20,000

Total Sales = 15,00,000

Less: cost of Sales (6,00,000)

Total profit 9,00,000

$$\text{Gross profit Margin} = \frac{9\text{lacs}}{15\text{lacs}} \times 100 = 60\%$$

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**WORKING NOTE: 1** Purchase cost of unit:-

Particulars	A (Rs.)	B (Rs.)	C (Rs.)
Selling Price	40	45	50
(-) GP @ 60%	(24)	(27)	(30)
Cost per unit	16	18	20

**WORKING NOTE: 2** Cal of opening stock

Opening stock = sales + closing stock – purchases

Dept A = 6120 + 600 - 6,000 = 720 units = 720 x Rs. 16 = Rs. 11,520

$$\begin{aligned}\text{Dept B} &= 11,520 + 960 - 12,000 = 480 \text{ units} \\ &= 480 \times \text{Rs. } 18 = \text{Rs. } 8,640 \\ \text{Dept C} &= 14,476 + 36 - 14,400 = 612 \text{ units} \\ &= 612 \times \text{Rs. } 20 = \text{Rs. } 12,240\end{aligned}$$

**Notes:**

- ⇒ It is assumed that there is no change in cost per unit in current year and previous year  
 ⇒ Cost is taken same for opening stock, purchases and closing stock.

**PROBLEM NO: 5****Calculation of Correct departmental Profits:**

	Dept – P (Rs.)	Dept – S (Rs.)	Dept – Q (Rs.)
Profits after charging manager's commission	90,000	60,000	45,000
Add: Managers commission @ 10% Net profit	10,000 $\left(90,000 \times \frac{10}{90}\right)$	6667 $\left(60,000 \times \frac{10}{90}\right)$	5000 $\left(45,000 \times \frac{10}{90}\right)$
	1,00,000	66,667	50,000
Less: Unrealised profit on stock (W.N - 1)	(5426)	(21,000)	(2,727)
Profits before managers commission	94,574	45,667	47,273
Less: Managers commission @ 10%	(9457)	(4,567)	(4,727)
Correct profit after manager's commission	85,117	41,100	42,546

**WORKING NOTES:**

Unrealised Profit in

$$\text{Dept – P} \Rightarrow \text{Dept S} = \text{Rs. } 18,000 \times \frac{25}{125} = \text{Rs. } 3600$$

$$\begin{aligned}\text{Dept Q} &= \text{Rs. } 14,000 \times \frac{15}{115} = \text{Rs. } \underline{1,826} \\ &= \text{Rs. } \underline{5,426}\end{aligned}$$

$$\text{Dept – S} \Rightarrow \text{Dept P} = \text{Rs. } 48,000 \times \frac{20}{100} = \text{Rs. } 9600$$

$$\begin{aligned}\text{Dept Q} &= \text{Rs. } 38000 \times \frac{30}{100} = \text{Rs. } \underline{11400} \\ &= \text{Rs. } \underline{21,000}\end{aligned}$$

$$\text{Dept – Q} \Rightarrow \text{Dept P} = \text{Rs. } 12,000 \times \frac{20}{100} = \text{Rs. } 2000$$

$$\begin{aligned}\text{Dept S} &= \text{Rs. } 8000 \times \frac{10}{100} = \text{Rs. } \underline{727} \\ &= \text{Rs. } \underline{2727}\end{aligned}$$

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**PROBLEM NO: 6**

Statement showing the computation of department profit or loss:

	Particulars	A (Rs.)	B (Rs.)	C (Rs.)	D (Rs.)
a)	Final profit / Loss computed earlier	(38,000)	50,400	72,000	1,08,000
b)	Add: Department manager's commission @ 10% of Dept. Profit Subject to a minimum of Rs. 6,000 [Working Note1]	6,000	6,000	8,000	12,000
c)	Profit before Dept manager's Commission (A+B)	(32,000)	56,400	80,000	1,20,000
d)	Less: Profit earned through transfer of goods at Loaded price remaining in stock at transfer department (W.N-2)	(2,200)	-	8,600	-
e)	Correct Departmental profit (before manager's commission (C-D))	(34,200)	56,400	71,400	1,20,000
f)	Less: manager's commission @ 10% of profit subject to a minimum of Rs. 6,000	(6,000)	(6,000)	(7,140)	(12,000)
g)	Departmental Profit after manager's Commission (E-F)	(40,200)	50,400	64,260	1,08,000

**WORKING NOTE:**

1. Manager's commission:

	Dept profit / Loss (Rs.)	Commission (Rs.)	(Rs.)
A	(-) 38,000	6,000	
B	50,400	6,000	i.e (50,400 x 1/9 = Rs. 5,600 less than 6000
C	72,000	8,000	i.e (72000 x 1/9 = 8000)
D	1,08,000	12,000	i.e. (1,08,000 x 1/9 = 12,000)

2. Unrealised profit on Stock transfer:

	Particulars	Amount (Rs.)
Dept A	Rs. 22,000 to Dept B @ 110% Profit there on 22,000 x 10/110	2,000
	Rs. 1,200 to Dept D @ 120% Profit there on 1,200 x 20/120	<u>200</u>
		<b>2,200</b>
Dept C	Rs. 48,000 to Dept B @120% Profit there on 48,000 x 20/120	8,000
	Rs. 3,600 to Dept D @ 120% Profit There on 3,600 x 20/120	<u>600</u>
		<b>8,600</b>

**PROBLEM NO: 7**

In the books of M/s X

Departmental Trading A/c for the year ended 31/12/2012

Dr.

Cr.

Particulars	Dept. A Rs.	Dept. B Rs.	Particulars	Dept. A Rs.	Dept. B Rs.
To Stock	20,000	12,000	By Sales	1,40,000	1,12,000
To Purchases	92,000	68,000	By Purchased Goods transferred	8,000	10,000
To Wages	12,000	8,000	By Finished goods transferred	35,000	40,000
To Carriage	2,000	2,000	Returns of finished Goods	10,000	7,000
To Purchased Goods transferred	10,000	8,000	By Closing Stock:		
To F.G. transferred	40,000	35,000	Purchased Goods	4,500	6,000
To Ret. of finished Goods	7,000	10,000	Finished Goods	24,000	14,000
To Gross profit c/d	38,500	46,000			
	<b>2,21,500</b>	<b>1,89,000</b>		<b>2,21,500</b>	<b>1,89,000</b>

Consolidated Trading Account for the year ending 31<sup>st</sup> December, 2012

Dr.

Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
To Opening Stock	32,000	By Sales	
To Purchases	1,60,000	By Closing Stock:	
To Wages	20,000	Purchased Goods	10,500
To Carriage	4,000	Finished Goods	38,000
To Stock Reserve	2,196		
To Gross Profit c/d	82,304		
	<b>3,00,500</b>		<b>3,00,500</b>

**WORKING NOTE:**

Particulars	Dept. A(Rs.)	Dept.B (Rs.)
Closing Stock out of transfer	4,800	2,800
Sale	1,40,000	1,12,000
Add: Transfer	35,000	40,000
	1,75,000	1,52,000
Less: Returns	(7,000)	(10,000)
Net Sales plus Transfer	<u>1,68,000</u>	<u>1,42,000</u>
Rate of Gross profit	$\frac{38,500}{1,68,000} \times 100 = 22.916\%$	$\frac{46,000}{1,42,000} \times 100 = 32.394\%$
Unrealised Profit	$4,800 \times 32.394\% = 1,555$	$2,800 \times 22.916\% = 641$

**PROBLEM NO: 8****Department Trading & P & L A/c the year ended 31/3/2012**

Dr.

Cr.

Particulars	Cloth (Rs.)	Readymade (Rs.)	Total (Rs.)	Particulars	Cloth (Rs.)	Readymade (Rs.)	Total (Rs.)
To opening stock	31,50,000	5,32,000	36,82,000	By sales	2,31,00,000	47,25,000	2,78,25,000
To purchases	2,10,00,000	1,68,000	2,11,68,00	By inter dept trans			
To manufacturing expenses	-	6,30,000	6,30,000	Cloth to readymade	31,50,000	-	-
To inter dept trans				By closing stock	21,00,000	6,72,000	27,72,000
Cloth to ready made	-	31,50,000	-				
To Gross profit c/d	42,00,000	9,17,000	51,17,000				
	<b>2,83,50,000</b>	<b>53,97,000</b>	<b>3,05,97,000</b>		<b>2,83,50,000</b>	<b>53,97,000</b>	<b>3,05,97,000</b>
To selling expenses	2,10,000	73,500	2,83,500	By gross profit b/d	42,00,000	9,17,000	51,17,000
To rent & warehousing	8,40,000	5,60,000	14,00,000				
To Net profit	31,50,000	2,83,500	34,33,500				
	<b>42,00,000</b>	<b>9,17,000</b>	<b>51,17,000</b>		<b>42,00,000</b>	<b>9,17,000</b>	<b>51,17,000</b>

**General Profit & Loss A/c**

Dr.

Cr.

Particulars	Amount Rs.	Particulars	Amount Rs.
To General expenses	10,85,000	By Net Profit	34,33,500
To Unrealised profit (W.N)	20,790		
To General net profit (b/f)	23,27,710		
	<b>34,33,500</b>		<b>34,33,500</b>

**WORKING NOTES:**

Rate of Gross profit of cloth department 2011-12

$$= \frac{42,00,000}{(2,31,00,000 + 31,50,000)} \times 100 = 16\%$$

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**Closing stock reserve :-**

Cloth in Readymade = 6,72,000 x 75% x 16% = 80,640

**Opening stock Reserve: (2010-11)**

Ready made cloths – 5,32,000 x 75% x 15% = 59.850

Additional stock reserve = 80640 – 59,850 = 20,790

**PROBLEM NO: 9****Departmental trading and Loss Account of M/s division for the year ended 31<sup>st</sup> December 2014,**

Dr.

Cr.

Particulars	Dept. A	Dept. B	Particulars	Dept. A	Dept. B
	Rs.	Rs.		Rs.	Rs.
To opening stock	50,000	40,000	By Sales	10,00,000	15,00,000
To Purchases	6,50,000	9,10,000	By Closing Stock	1,00,000	2,00,000
To Gross Profit	4,00,000	7,50,000			
	<b>11,00,000</b>	<b>17,00,000</b>		<b>11,00,000</b>	<b>17,00,000</b>
To general Expenses (in ratio of sales)	50,000	75,000	By Gross Profit	4,00,000	7,50,000
To Profit t/r to general profit and loss account	3,50,000	6,75,000			
	4,00,000	7,50,000		4,00,000	7,50,000

**General Profit and loss Account**

Dr.

Cr.

	Rs.		Rs.
To Stock reserve required (additional: Stock in Dept, A 50% of (Rs. 20,000 – Rs. 10,000) (W.N-1)	5,000	By Profit from:	
		Dept. A	3,50,000
		Dept. B	6,75,000
Stock in Dept B 40% of (Rs. 30,000 – Rs. 15000) (W.N-2)	6,000		
To Net Profit	10,14,000		
	<b>10,35,000</b>		<b>10,25,000</b>

**WORKING NOTES: 1** Calculation of Gross Profit =  $G.P \% = \frac{\text{Gross profit}}{\text{Sales}} \times 100$

$$\text{Dept - A} = \frac{400000}{1000000} \times 100 = 40\%$$

$$\text{Dept - B} = \frac{750000}{1500000} \times 100 = 50\%$$

**WORKING NOTES: 2** Calculation of stock reserve ofss

$$\text{Dept - A} = (20,000 - 10,000) \times 50\% = \text{Rs. } 5000$$

$$\text{Dept - B} = (30,000 - 15,000) \times 40\% = \text{Rs. } 6000$$

**PROBLEM NO: 10**

Departmental Trading and profit &amp; loss A/c for the year ended 31-3-2012

Dr.

Cr.

Particulars	I (Rs.)	J (Rs.)	K (Rs.)	Total (Rs.)	Particulars	I (Rs.)	J (Rs.)	K (Rs.)	Total (Rs.)
To Opening stock	5000	8,000	19,000	32,000	Bu sales	-	-	80,000	80,000
To Material consumed	16,000	20,000		36,000	To inter dept trans(WN)				
To direct labour	9000	10,000		19,000	Dept – I to J	30,000	-	-	-
To intr dept trans					Dept – J to K	-	60,000	-	-
Dept – I to J	-	30,000	-	-	By closing stock	5000	20,000	5000	30,000
Dept – J to K	-	-	60,000	-					
To Gross profit c/d	5000	12,000	6,000	23,000					
	35,000	80,000	85,000	1,10,000		35,000	80,000	85,000	1,10,000
To Salaries and staff welfare (3:2:1)	9000	6000	3000	18,000	By gross profit b/d	5000	12000	6000	23000
To Rent (5:3:2)	3,000	1,800	1200	6,000					
To Net Profit	-	4200	1800	6000	By Net loss	7000	-	-	7000
	<b>12,000</b>	<b>12,000</b>	<b>6000</b>	<b>30,000</b>		<b>12000</b>	<b>12,000</b>	<b>6000</b>	<b>30,000</b>

**General profit & loss A/c**

Dr.

Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Net Loss (l)	7000	By Net profit (42000 + 1800) (J + K)	6000
To stock reserve (J + K) (WN:)	3000	By Stock reserve (2000 + 3000) (J + K)	5000
To General net profit (Bal. fiq)	1000		
	11,000		11,000

**WORKING NOTES:**

Calculation of Inter department Transfer :

**From dept I to J :**

Op stock + material consumed + Dir lab cost – Cl stock  
 = Rs.5000 + Rs. 16000 + Rs. 9000 – Rs. 5000 = Rs. 25,000  
 Transfer at 20% on cost = Rs. 25000 + 20% = Rs. 30,000

**From Dept J to K:**

Op stock + mat cons + dir lab lost + Inward transfer – cl stock  
 Rs. 8000 + Rs. 20000 + Rs. 10,000 + Rs. 30,000 – Rs. 20,000 = Rs. 48000  
 Transfer at 20% sales = 25% cost  
 Rs. 48000 + 25% = Rs. 60,000 stock transferred to k.

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**Cal of unrealized profit on closing stock:****Dept –J**

Cost material consumed + Direct lab lost = Rs. 30,000

Transfer from I dept = 30,000

= 60,000

Closing stock of dept J = 20,000

Proportion of Stock of I dept = Rs. 20,000 x  $\frac{30,000}{60,000}$  = Rs. 10,000

Stock Closing stock reserve = Rs. 10,000 x  $\frac{20}{120}$  = Rs. 1667

**Dept- K**

Closing stock from J dept = 5000

Less: stock Reserve (5000 x 20%) = (1000)

Cost to J dept = 4000

Proportion of stock from I dept = 4000 x  $\frac{30,000}{60,000}$  = 2000

Closing Stock reserve = 2000 x  $\frac{20}{120}$  = 333

Total stock reserve = 1667 + 1000 + 333 = 3000

**PROBLEM NO: 11****1. In the books of Head office****Trading A/c for the year ended 31/3/2013**

Dr.		Cr.	
Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Opening stock	65,000	By sales	3,00,000
To purchases	2,00,000	By shortage	1,000
To Gross profit c/d	58,880	By closing stock (WN)	22,880
	<b>3,23,880</b>		<b>3,23,880</b>

**WORKING NOTES:**

Rs.

Calculation of cost of sales:

Sales for the year = 3,00,000

Add: Mark down in opening stock = 600

Add: mark down out of current purchases

15000 → 1200

Sold 10,000 → ? = 10,000 x  $\frac{1200}{15000}$  = 800

value of sales without mark down = 3,01,400

Less: Gross profit  $\left( \begin{array}{l} 3,01,400 \rightarrow 125 \\ ? \rightarrow 25 \end{array} \right)$  = (60,280)

Cost of sales = **2,41,120**

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**Calculation of closing stock:**

Particulars	Rs.
Opening stock	65,000
Add: purchases	2,00,000
Less: cost of sales	(2,41,120)
Less: shortage	<u>(1,000)</u>
Closing stock	<u>22,880</u>

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**2. Memorandum stock A/c (dept-A) (at selling price)**

Dr.		Cr.	
Particulars	Amount Rs.	Particulars	Amount Rs.
To bal b/d (opening) (65000+25% of 65000)	81250	By Sales	3,00,000
To purchases (2,00,000+25% of 2,00,000)	2,50,000	By Memorandum dept markup (Markdown on current purchase)	1200
		By Memorandum dept markup (markdown on opening stock)	600
		By mem dept mark up A/c (load on shortage 1000 x 25%)	250
		By P & L A/c (shortage)	1000
		By balance c/d (Bal. fig)	28,200
	3,31,250		3,31,250

**3. Memorandum Departmental mark up A/c**

Dr.		Cr.	
Particulars	Amount Rs.	Particulars	Amount Rs.
To Memorandum dept stock (1000 x 25%)	250	By Balance b/d (opening)	1625
		$\left(51250 \times \frac{25}{125}\right)$	
To Memorandum dept stock (Markdown current pur)	1200	By Mem dept stock A/c (purchases)	50,000
		$\left(2,50000 \times \frac{25}{125}\right)$	
To Memorandum dept stock (Mark down opening)	600		
To Gross profit to p & L A/c 58,880			
To bal c/d $\left((28200 + 400) \times \frac{25}{125} - 400\right)$	5,320		
	66,250		66,250

**Notes :**  $*1200 \times \frac{5000}{15000} = 400$

**THE END**