5. DEPARTMENTAL ACCOUNTS

ASSIGNMENT SOLUTIONS

PROBLEM NO: 1

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

Particulars	Radio Rs.	Gramo phone Rs.	Service Rs.	Particulars	Radio Rs.	Gramo Phone Rs.	Service Rs.
To Purchases	1,40,700	90,600	64,400	By sales	1,50,000	1,00,000	25,000
To Gross Profit c/d	69,400	29,700	5,200	By Closing Stock	60,100	20,300	44,600
	2,10,100	**1,20,300**	**69,600**		**2,10,100**	**1,20,300**	**69,600**
To Salaries (WN-1)	12,000	24,000	12,000	By Gross Profit b/d	69,400	29,700	5,200
To Rent (WN-2)	3,900	3,900	3,000				
To Sundry Expenses (WN-3)	6,000	4,000	1,000				
To Net Profit / Loss	47,500	(2,200)	(10,800)				
	69,400	**29,700**	**5,200**		**69,400**	**29,700**	**5,200**

NOTE:

Show room → Radio's (A), Gramophone (B)

Work shop → Servicing (C)

WORKING NOTE 1:

Salaries - 48,000

→ 12,000 (1/4) - workshop (servicing)

→ 36,000 (3/4) - show room

(1:2) → 12,000 Radio; 24,000 Gramo phone

WORKING NOTE 2:

Rent of workshop = 500 p.m x 6m = 3,000

Actual Rent = 10,800

(-) work shop = 3,000

7,800

Radio	Gramo phone
3,900	3,900

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

WORKING NOTE 3: Sundry Expresses → $11,000 \times \frac{6}{11}$, $11,000 \times \frac{4}{11}$, $11,000 \times \frac{1}{11}$

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

PROBLEM NO: 2

Dr. Trading and Profit and Loss Account for the year ended on 31st March, 2015 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**
To Salaries	2,250	1,350	900	By Gross profit	20,800	7,800	11,900
To Power & Water	600	360	240	By Net loss	-	465	-
To Telephone	1,050	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	1,750	1,050	700				
To Depreciation (2,000 + 4,000)	3,000	1,800	1,200				
To Net profit	7,025	-	6,390				
	20,800	**8,265**	**11,900**		**20,800**	**8,265**	**11,900**

Balance sheet as at 31-03-2015

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	(2,000)	18,000
Capital	40,000		Motor vehicles	40,000	
Add: Profit (7,025 + 6,390)	13,415		**Less:** Depreciation	(4,000)	36,000
Less: Loss	(465)		Debtors		12,200
	52,950		Cash in hand		850
Less: Drawings	(1,500)	51,450	Stock		7,000
		78,650			**78,650**

PROBLEM NO: 3

Calculation of Departmental Results (Actual Gross Profit):

Particulars	P (Rs.)	Q (Rs.)	R (Rs.)
Actual Sales	1,88,000	1,66,000	93,000
Add back: Discount (Refer W.N.)	4,000	2,000	2,000
Normal sale	1,92,000	1,68,000	95,000
Gross profit % on normal sales	25%	33.33%	40%
Normal gross profit	48,000	56,000	38,000
Less: Discount	(4,000)	(2,000)	(2,000)
Actual gross profit	44,000	54,000	36,000

Computation of value of stock as on 31st Dec. 2014

Dr. Departmental Trading A/c of Sona Ltd. for the year ended 31.12.2014 Cr.

Particulars	P (Rs.)	Q (Rs.)	R (Rs.)	Particulars	P (Rs.)	Q (Rs.)	R (Rs.)
To Opening 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 (b/f)	46,000	63,000	18,000
To Gross Profit b/d	44,000	54,000	36,000				
	2,34,000	**2,29,000**	**1,11,000**		**2,34,000**	**2,29,000**	**1,11,000**

Working Note: Calculation of discount on sales

Departments	P (Rs.)	Q (Rs.)	R (Rs.)
Sales at Normal price	15,000	8,000	6,000
Less: Sales at Actual price	(11,000)	(6,000)	(4,000)
	4,000	2,000	2,000

PROBLEM NO: 4

Sales value of purchased units:

Dept. A = 1,000 X 20 = 20,000

Dept. B = 2,000 X 22.5 = 45,000

Dept. C = 2,400 X 25 = 60,000

5,400 units = 1,25,000

(-) cost of purchases = (1,00,000) = cost of goods sold (Assumed)

G.P = 25,000

G.P $= \frac{GP}{Sales} X 100 = \frac{25,000}{1,25,000} X 100 =$ **20%**

Computation of cost per unit:

Dept.	SP per unit	GP per unit	Cost per unit
A	20	(20 x 20%) = 4	16
B	22.5	(22.5 x 20%) = 4.5	18
C	25	(25 x 20%) = 5	20

Computation of Closing Stock Units:

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

Computation of value of opening stock, purchase and closing stock:

Dept	Opening stock	Purchases	Closing stock
A	120 units x Rs. 16 = Rs.1,920	1,000 x 16 =16,000	100 units x Rs.16 = Rs.1,600
B	80 units x Rs.18 = Rs. 1,440	2,000 x 18 = 36,000	160 units x Rs.18 = Rs. 2,880
C	152 units x Rs. 20 = Rs. 3,040	2,400 x 20 = 48,000	56 units x Rs. 20 = Rs. 1,120

Dr. Departmental Trading A/c Cr.

Particulars	A	B	C	Particulars	A	B	C
To Opening Stock	1,920	1,440	3,040	By sales (Actual)	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	**4,080**	**8,640**	**12,480**				
Total	**22,000**	**46,080**	**63,520**	Total	**22,000**	**46,080**	**63,520**

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 $\left(90{,}000 x \frac{10}{90}\right)$	6667 $\left(60{,}000 x \frac{10}{90}\right)$	5000 $\left(45{,}000 x \frac{10}{90}\right)$
	1,00,000	66,667	50,000
Less: Unrealised profit on stock (W.N-1)	(5,426)	(21,000)	(2,727)
Profits before managers commission	94,574	45,667	47,273
Less: Managers commission @ 10%	(9,457)	(4,567)	(4,727)
Correct profit after manager's commission	85,117	41,100	42,546

WORKING NOTES:

Unrealised Profit in

Dept. P $\Rightarrow$ Dept. S = Rs.18,000 x $\frac{25}{125}$ = Rs.3,600

Dept. Q = Rs. 14,000 x $\frac{15}{115}$ = Rs.1,826

= Rs.**5,426**

Dept. S $\Rightarrow$ Dept. P = Rs. 48,000 x $\frac{20}{100}$ = Rs. 9,600

Dept. Q = Rs. 38,000 x $\frac{30}{100}$ = Rs.11,400

= Rs.**21,000**

Dept. Q $\Rightarrow$ Dept. P = Rs. 12,000 x $\frac{20}{100}$ = Rs. 2,000

Dept. S = Rs. 8000 x $\frac{10}{100}$ = Rs. 727

= Rs. **2,727**

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 [W.N.1]	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. (72,000 x 1/9 = 8,000)
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	200
		2,200
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	600
		8,600

PROBLEM NO: 7

Dr. Departmental Trading Account of Mega Ltd. for the year ended 31st March, 2014 Cr.

Particulars	Debt. A	Debt. B	Particulars	Debt. A	Debt. B
To Opening Stock	70,000	54,000	By Sales	5,72,000	4,60,000
To Purchases	3,92,000	2,98,000	By Transfer:		
To Carriage Inward	6,000	9,000	Purchased goods	36,000	50,000
To Wages	54,000	36,000	Finished goods	1,30,000	1,18,000
To Transfers:			By closing stock		
Purchased goods	50,000	36,000	Purchased goods	24,000	30,000
Finished goods**	1,18,000	1,30,000	Finished goods	1,02,000	62,000
To Gross Profit c/d	1,74,000	1,57,000			
	8,64,000	7,20,000		8,64,000	7,20,000

*** Finished goods from other department included in closing stock**

Particulars	Dept. A	Dept. B
Stock of Finished Goods	1,02,000	62,000
Stock related to other department (30% of Finished Goods)	30,600	18,600

**** Net transfer of Finished Goods by**

Department A to B = (1,75,000 - 45,000) = 1,30,000

Department B to A = (1,50,000 - 32,000) = 1,18,000

Dr. General Profit and Loss A/c of Mega Ltd. for the year ended 31st March, 2014 Cr.

Particulars	Rs.	Particulars	Rs.
To Provision for unrealised profit		By Gross Profit b/d:	
included in closing stock:		Department A	1,74,000
Department A (W.N.2)	8,311	Department B	1,57,000
Department B (W.N.2)	4,611		
To Net Profit	3,18,078		
	3,31,000		3,31,000

Working Notes:

1. Calculation of ratio of gross profit margin on sales

Particulars	Dept. A	Dept. B
Sales	5,72,000	4,60,000
Add: Transfer of Finished Goods	1,75,000	1,50,000
	7,47,000	6.10,000
Less: Return of Finished Goods	(45,000)	(32,000)
	7,02,000	5,78,000
Gross Profit	1,74,000	1,57,000
Gross Profit margin =	$\frac{1{,}74{,}000}{7{,}02{,}000} \times 100 = 24.79\%$	$\frac{1{,}57{,}000}{5{,}78{,}000} \times 100 = 27.16\%$

2. Unrealised profit included in the closing stock:

Department A = 27.16% of Rs. 30,600 (30% of Stock of Finished Goods Rs.1,02,000) = 8,311.00

Department B = 24.79% of Rs.18,600 (30% of Stock of Finished Goods Rs.62,000) = 4,611.00

PROBLEM NO: 8

Dr. Department Trading & P& L A/c the year ended 31/3/2012 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				
	2,83,50,000	**53,97,000**	**3,05,97,000**		**2,83,50,000**	**53,97,000**	**3,05,97,000**
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				
	42,00,000	**9,17,000**	**51,17,000**		**42,00,000**	**9,17,000**	**51,17,000**

Dr. General Profit & Loss A/c 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		
	34,33,500		34,33,500

WORKING NOTES:

Rate of Gross profit of cloth department 2011-12 = $\frac{42,00,000}{(2,31,00,000+31,50,000)}\text{x}100 = 16\%$

Closing Stock of cloth in Readymade Clothes Department = 75% i.e. Rs. 6,72,000 x 75% = Rs. 5,04,000

Closing stock reserve: Cloth in Readymade = 6,72,000 x 75% x 16% = 80,640

Opening stock Reserve: (2010-11):

Readymade cloths: 5,32,000 x 75% x 15% = 59,850

Additional stock reserve = 80,640 - 59,850 = 20,790

PROBLEM NO: 9

Dr. Departmental Trading and profit & loss A/c for the year ended 31-3-2012 Cr.

Particulars	I (Rs.)	J (Rs.)	K (Rs.)	Total (Rs.)	Particulars	I (Rs.)	J (Rs.)	K (Rs.)	Total (Rs.)
To Opening stock	5,000	8,000	19,000	32,000	By sales	-	-	80,000	80,000
To Material consumed	16,000	20,000		36,000	To inter dept. trans (WN)				
To direct labor	9,000	10,000		19,000	Dept. - I to J	30,000	-	-	-
To inter 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	5,000	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)	9,000	6000	3,000	18,000	By gross profit b/d	5,000	12,000	6,000	23,000
To Rent (5:3:2)	3,000	1,800	1,200	6,000					
To Net Profit	-	4,200	1,800	6,000	By Net loss	7,000	-	-	7,000
	12,000	**12,000**	**6000**	**30,000**		**12000**	**12,000**	**6000**	**30,000**

Dr. General profit & loss A/c Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Net Loss (I)	7,000	By Net profit (42,000 + 1,800) (J + K)	6,000
To stock reserve (J + K) (WN)	3,000	By Stock reserve (2,000 + 3,000) (J + K)	5,000
To General net profit (Bal. fig)	1,000		
	11,000		11,000

WORKING NOTES: Calculation of Inter department Transfer:

From dept I to J:

Opening stock + material consumed + Direct lab cost - Closing stock

= Rs.5,000 + Rs. 16,000 + Rs. 9,000 - Rs. 5,000 = Rs. 25,000

Transfer at 20% on cost = Rs. 25000 + 20% = Rs. 30,000

From Dept J to K:

Opening stock + material consumed + Direct lab cost + Inward Transfer - Closing stock

Rs. 8,000 + Rs. 20,000 + Rs. 10,000 + Rs. 30,000 - Rs. 20,000 = Rs. 48,000

Transfer at 20% sales = 25% cost

Rs. 48,000 + 25% = Rs. 60,000 stock transferred to k.

Cal of unrealized profit on closing stock:

Dept.-J:

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

Transfer from I dept. = Rs. 30,000

= Rs. 60,000

Closing stock of dept. J = Rs. 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. = 5,000

Less: stock Reserve (5,000 x 20%) = (1,000)

Cost to J dept. = 4,000

Proportion of stock from I dept. = 4,000 x $\frac{30,000}{60,000}$ = 2,000

Closing Stock reserve = 2,000 x $\frac{20}{120}$ = 333

Total stock reserve = 1,667 + 1,000 + 333 = 1,333

PROBLEM NO: 10

Dr. Departmental Trading and Loss Account of M/s division for the year ended 31st December 2014 Cr.

Particulars	Dept. A (Rs.)	Dept. B (Rs.)	Particulars	Dept. A (Rs.)	Dept. B (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			
	11,00,000	**17,00,000**		**11,00,000**	**17,00,000**
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**

Dr. General Profit & loss Account Cr.

Particulars	Rs.	Particulars	Rs.
To Stock reserve required (additional:	5,000	By Profit from:	

Stock in Dept. A 50% of (Rs. 20,000 - Rs. 10,000) (W.N -1)		Dept. A Dept. B	3,50,000 6,75,000
Stock in Dept. B 40% of (Rs. 30,000 - Rs. 15,000) (W.N-2)	6,000		
To Net Profit	10,14,000		
	10,35,000		**10,25,000**

WORKING NOTES:

Calculation of Gross Profit = G.P % = $\frac{\text{Gross profit}}{\text{Sales}}$ X 100

1. Dept. - B = $\frac{7,50,000}{15,00,000}$ x 100 = 50%

2. Dept. - A = $\frac{4,00,000}{10,00,000}$ x 100 = 40%

3. Calculation of stock reserve

Dept. - A = (20,000 - 10,000) x 50% = Rs. 5,000

Dept. - B = (30,000 - 15,000) x 40% = Rs. 6,000

PROBLEM NO: 11

i) Dr. Department Trading Account For the year ending on 31.03.20X2 Cr.

In the books of Head Office

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 (b.f.)	58,880	By Closing Stock	22,880
	3,23,880		3,23,880

ii) Memorandum stock account (for Department A) (at selling price)

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Balance b/d (Rs. 65,000 + 25% of Rs. 65,000)	81,250	By Profit & Loss A/c (Cost of Shortage)	1,000
To Purchases (Rs. 2,00,000 + 25% of Rs. 2,00,000)	2,50,000	By Memorandum Departmental Markup A/c (Load on Shortage) (Rs. 1,000 x 25%)	250
		By Memorandum Departmental Mark-up A/c (Mark-down on Current Purchases)	1,200
		By Debtors A/c (Sales)	3,00,000
		By Memorandum Departmental Mark-up A/c (Mark Down on Opening Stock)	600
		By Balance c/d (b.f.)	28,200
	3,31,250		3,31,250

iii) Memorandum Departmental Mark-up Account

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Memorandum Departmental Stock A/c (Rs. 1,000 × 25/100)	250	By Balance b/d (Rs. 81,250 x 25/125)	16,250
To Memorandum Departmental Stock A/c	1,200	By Memorandum Departmental Stock A/c (Rs. 2,50,000 x 25/125)	50,000
To Memorandum Departmental Stock A/c	600		
To Gross Profit transferred to Profit & Loss A/c	58,880		

To Balance c/d [(Rs. 28,200 + 400*) x 25/125 - Rs. 400]	5,320		
	66,250		66,250

*[Rs. 1,200 ×5,000/15,000] = Rs. 400

Working Notes:

i) Calculation of Cost of Sales

	Particulars	Amount (Rs.)
A.	Sales as per Books	3,00,000
B.	**Add:** Mark-down in opening stock (given)	600
C.	**Add:** Mark-down in sales out of current Purchases (Rs. 1,200 x 10,000 /15,000)	800
D.	Value of sales if there was no mark-down (A+B+C)	3,01,400
E.	**Less:** Gross Profit (25/125 of Rs. 3,01,400)	(60,280)
F.	Cost of sales (D-E)	2,41,120

ii) Calculation of Closing Stock

	Particulars	Amount (Rs.)
A.	Opening Stock	65,000
B.	**Add:** Purchases	2,00,000
C.	**Less:** Cost of Sales	(2,41,120)
D.	**Less:** Shortage	(1,000)
E.	Closing Stock (A+B-C-D)	22,880

Note: It has been assumed that markup (given in question) is determined as a percentage of cost.

THE END