Working Note :

Ratio of cost of goods sold i.e., W : X : Y : Z = 40 : 44 : 56 : 60 or 10 :11 :14 : 15.

Salary & Com. (Dept. W) = 30,000 × 10/50 = ₹ 6,000 ; Rent & Rates = 20,000 × 10/50 = ₹ 4,000; Insurance = 4,500 × 10/50 = ₹ 900 & so on.

Preparation of Statement for Calculation of Closing Stock and Profit

Illustration 2. The directors of Departmental Stores Ltd. wish to ascertain the net profits of the A, B and C departments separately for the four months ended 30th April, 2015. It is found impracticable actually to take stock on that date but an adequate system of departmental account is in use and the normal rates of gross profit for the departments concerned are 40%, 30% and 20% (before charging direct expenses) on turnover respectively. Indirect expesnes are charged in proportion to departmental turnover.

The following are figures for each department :

Particulars \ Departments	A	B	C
	₹	₹	₹
Stock (1-1-2015)	6,000	7,000	3,000
Purchases for the period	7,000	6,500	4,700
Sales for the period	12,000	10,000	6,000
Direct Expenses	2,020	1,450	710

The total indirect expenses for the period (including those relating to other departments) were ₹ 4,200 on the total turnover of ₹ 84,000.

Prepare a statement of estimated profits for the directors, making a stock reserve of 10% for each department on the estimated value of stock on 30th April, 2015. **[P. U. – 2005 ; Moderate]**

Solution :

STATEMENT OF ESTIMATED PROFIT
(for the Period ended 30th April, 2015)

Particulars	Dept. A		Dept. B		Det. C	
	₹	₹	₹	₹	₹	₹
Stock (1-1-2015)	6,000		7,000		3,000	
Purchases	7,000		6,500		4,700	
Gross Profit c/d* (40%, 30% & 20% on Departmental Sales)	4,800	4,800	3,000	3,000	1,200	1,200
	17,800		16,500		8,900	
Less : Sales	12,000		10,000		6,000	
Estimated Stock (30-4-2015)	5,800		6,500		2,900	
Less :						
Direct Expenses	2,020		1,450		710	
Indirect Expenses**	600		500		300	
Stock Reserve***	580	3,200	650	2,600	290	1,300
Estimated Net Profit/Loss (Balancing Figure)		1,600		400		(–)100

Working Notes :

* Gross Profit of Department A, B & C ; 40%, 30% & 20% respectively on sales :
A = 12,000 × 40/100 = ₹ 4,800, B = 10,000 × 30/100 = ₹ 3,000 & C = 6,000 × 20/100 = ₹ 1,200

** Ratio of Total Indirect Expenses & Total Turnover/Sales = ₹ 4,200 : ₹ 84,000 = 1 : 20 or 1/20
Indirect Exp.of Dept.; A = 12,000 × 1/20 = ₹ 600 ; B = 10,000 × 1/20 = ₹ 500 & C = 6,000 × 1/20 = ₹ 300.

*** Stock Reserve (10% on closing stock) :
Dept. A = 5,800 × 10/100 = ₹ 580 ; Dept. B = 6,500 × 10/100 = ₹ 650 & Dept. C = 2,900 × 10/100 = ₹ 290.

Distribution of Indirect Expenses & Preparation of Profit and Loss Account

Illustration 3. Aman, the proprietor of a departmental store, containing three departments named A, B and C ; decided to calculate separate profit for his departments for the month of December 2014. Stock on 31st December could not be valued for the certain unavoidable reasons but his rates of gross profits on sales for the A, B and C departments are 40%, 30% and 20% respectively. The following information is given :

Particulars	Departments		
	A	B	C
	₹	₹	₹
Stock on 1.12.2014	9,000	8,400	12,000
Salary	5,490	8,520	12,220
Purchases	27,000	21,600	90,000
Sales	42,000	36,000	1,02,000

Indirect expenses for whole business of all three Departments are ₹ 10,800, out of this 1/6 of the whole are to be divided in all the three departments in proportion to 1 : 1 : 3 respectively and the balance of Indirect expenses is to be charged in proportion to departmental sales. Prepare Trading and Profit & Loss Account for the departments A, B and C.

[P.U. – 2010 ; Moderate]

Solution :

DEPARTMENTAL TRADING AND PROFIT & LOSS ACCOUNT
(for the Month ended 31st December, 2014)

Particulars	A	B	C	Particulars	A	B	C
	₹	₹	₹		₹	₹	₹
To Stock (1-1-2014)	9,000	8,400	12,000	By Sales	42,000	36,000	1,02,000
To Purchases	27,000	21,600	90,000	By Stock (Balancing Figure)	10,800	4,800	20,400
To Gross Profit* - c/d	16,800	10,800	20,400				
	52,800	40,800	1,22,400		52,800	40,800	1,22,400
To Salary	5,490	8,520	12,220	By Gross Profit b/d	16,800	10,800	20,400
To Indirect Expenses**	2,460	2,160	6,180				
To Net Profit	8,850	120	2,000				
	16,800	10,800	20,400		16,800	10,800	20,400

Working Notes :

(1) *Gross Profit of Department A, B & C ; 40%, 30% & 20% respectively on sales : A = 42,000 × 40/100 = ₹ 16,800, B = 36,000 × 30/100 = ₹ 10,800 & C = 1,02,000 × 20/100 = ₹ 20,400

(2) **Distribution of Indirect Expenses among departments A, B & C (1/6 in ratio of 1 : 1 : 3 or 1/5: 1/5:3/5); & 4/5 (balance) in ratio of Departmental Sales of A, B & C ; *i.e.* 42 : 36 : 102 = 7 : 6 : 17 or 7/30 : 6/30 : 17/30

Indirect Expenses	Dept. A	Dept. B	Dept. C
10,800 × 1/6 =1,800	1,800 × 1/5 = 360	1,800 × 1/5 = 360	1,800 × 3/5 = 1,080
10,800 × 5/6 = 9,000	9,000 × 7/30 = 2,100	9,000 × 6/30 = 1,800	9,000 × 17/30 = 5,100
Total ₹ 10,800	₹ 2,460	₹ 2,160	₹ 6,180

Calculation of Manager's Commission on Net Profit.

Illustration 4. Mridul and Mayank Carry on their business as merchants in four departments viz. A, B ,C and D. During a trading period the requisite figures are as follows :

Particulars \ Departments	A	B	C	D
	₹	₹	₹	₹
Opening Stock	5,000	12,000	3,000	8,000
Purchases	45,000	18,000	7,000	18,000
Sales	48.000	21,000	9,500	20,000
Closing Stock	12,000	14,000	2,000	4,500

The expenses for the trading period which are to be charged to each department in proportion to the sales of that department were as follows :

Rent and Rates ₹ 2,500 ; Sundry Expenses ₹ 1,800; Salaries etc. ₹ 10,500.

In addition, the manager of each department was entitled to a commission of 12.5% on the profits of his department after charging the foregoing expenses. Prepare a tabulated Trading and Profit and Loss Account showing the final result and the percentage thereof on sales in each department, together with the total result and percentage. **[R.U. – 2000 ; VBU – 2002]**