

Department Accounts**17**

Meaning: Preparation of separate accounts by each department to judge its efficiency.

Advantages of Departmental Accounting

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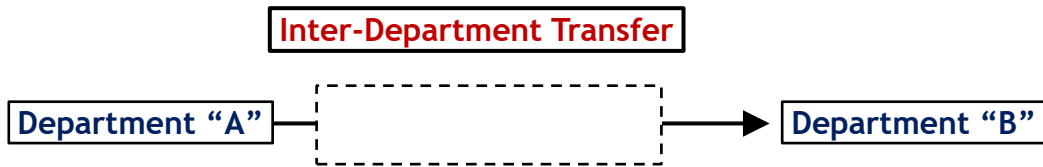
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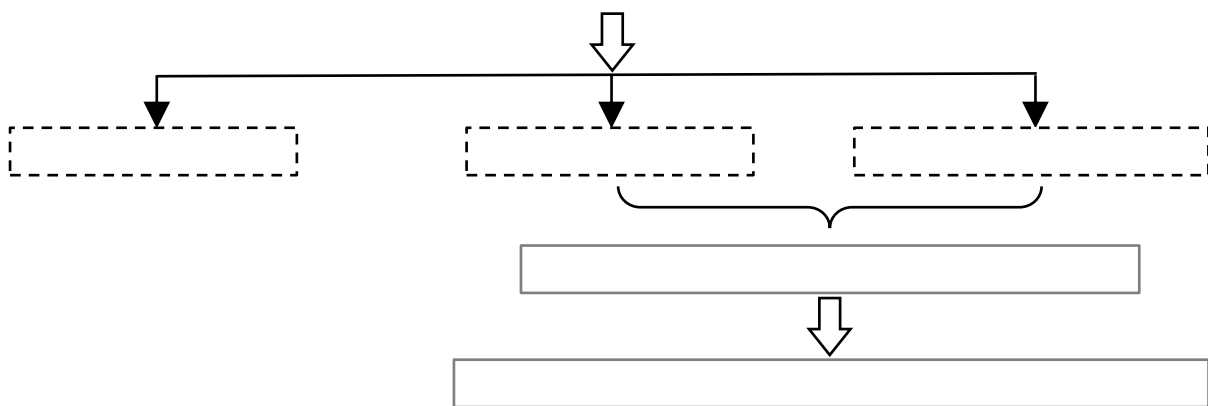
Allocation and Apportionment of Common Expense

Expenses	Basis of Allocation
(1) Rent, Rates, Taxes, Repairs and Maintenance of Building	
(2) Sales Related Expense e.g. Discount, Bad debts, Sales commission, Freight Outwards, Travelling Sales Manager's Salary etc.	
(3) Administration and other expenses like manager's salary, M.D. Salary, Common Advertisement Expenses etc.	
(4) Discount Received/ Carriage Inwards	
(5) Lighting & Heating Expenses (e.g. Energy Exp.)	
(6) Depreciation, insurance, Repairs and Maintenance of capital Assets	
(7) P.F. Contribution and ESI Contribution	
(8) Canteen Expenses and other labour welfare expenses	

(9) Expenses which can not be apportioned on Ration (Suitable) Basis e.g. Interest on Loan, Profit/ Loss on Sale of Investment



Journal Entry



Journal Entries Loadings (Unrealised Profit)

At the End of Year		
At the Beginning of Next Year		

Calculation of Stock Reserve

Stock Reserve =

X

Practical Problems

Q No. 1: Kangaroo Ltd. has two departments Department X and Department Y. Prepare Departmental trading and profit and loss Account with the help of following information.

Particular	X	Y
Opening stock	15,000	18,000
Materials consumed	46,000	80,000
Direct labour	19,000	30,000
Closing stock	15,000	25,000
Sales	90,000	1,30,000
Electric Bill	2,000	1,500
Manager's Salary	6,000	8,000

Answer: kangaroo ltd.

Particular	X	Y	Particular	X	Y
Total			Total		
Total			Total		

Particular		Particular	

Q No. 2: M/s Delta is a Departmental Store having three departments X, Y and Z. the information regarding three departments for the year ended 31.03.2018 are given below:

Particular	X	Y	Z
Opening Stock	18,000	12,000	10,000
Purchases	66,000	44,000	22,000
Debtors at the end	7,500	5,000	5,000
Sales	90,000	67,500	45,000
Closing Stock	22,500	8,750	10,500
Value of furniture in each Department	10,000	10,000	5,000
Floor space occupied by each Department (in sq. ft.)	1,500	1,250	1,000
Number of employees in each department	25	20	15
Electricity consumed by each Department (in units)	300	200	100

Additional information:

	Rs.		Rs.
Carriage inward	1,500	Discount Received	1,800
Carriage outward	2,700	Rent, rates and Taxes	7,500
Salaries	24,000	Depreciation on Furniture	1,000
Advertisement	2,700	Electricity Expenses	3,000
Discount Allowed	2,250	Labour welfare expenses	2,400

Prepare Departmental Trading and Profit & Loss Account for the year ended 31.03.2018 after providing provision for Bad Debts at 5%.

Q No. 3: Mr. P is the proprietor of a retail business which has two main departments which sell respectively Computers and Printers. On 31.12.2022, the balances in the books of the business were as follows:

Particulars	Dr. (₹)	Cr. (₹)
Capital		71,000
Sales: Computers		59,000
Printers		29,500
Purchases; Computers	20,000	
Printers	10,000	
Stock on 1.1.2021: Computers	2,320	
Printers	2,136	
Salaries: Computers	20,560	
Printers	15,440	
Advertising	615	
Discount allowed: Computers	400	
Printers	200	
Drawings	3,000	
Buildings (Cost)	43,000	
Equipment at W.D.V.: Computers	18,000	
Printers	7,000	
Debtors and Creditors	10,200	5,319
Bank	5,600	
Rent and Rates	1,580	
Canteen Charges	875	
Heating and Lighting	880	
Insurance of Stock	940	
General Administrative Expenses	2,073	
Total	1,64,819	1,64,819

Additional information:

At 31.12.2021, the following amounts were outstanding:

Salaries – Computers ₹ 250 and Printers ₹ 170; Heating and Lighting ₹ 20.

The general administrative expenses and the rent and rates included prepayments of ₹ 33 and ₹ 80 respectively.

Stocks at 31.12.2021 were: Computers ₹ 2,800; Printers ₹ 2,450.

Depreciation is to be provided on equipment at 10% on W.D.V.

The managers of the Computers and Printers departments are to be paid a commission of 5% of the

net profit (prior to the commission payment) of the respective departments.

In apportioning the various expenses between the two departments due regard is to be given to the following information:

	Number of Workers	Average Stock Levels (₹)	Floor Area (sq.mt)
Computer	18	5,000	8,000
Printer	12	4,400	4,000

The general administrative expenses are primarily incurred in relation to the processing of purchases and sales invoices.

Prepare a Departmental Trading and Profit and Loss Account and the Balance Sheet.

[Answer: Net Profit of Computer ₹11,471 and Printers ₹19,814; Total of Balance Sheet ₹86,663]

Q No 4: Mau is earning uniform rate of gross profit in all three departments he is handling. Following are the relevant details:

	Purchases:	Sales:	Opening stock
Dept A	15,000 cartons	16,000 cartons at Rs. 20 per carton	4,000 cartons
Dept R	20,000 cartons	22,000 cartoons at Rs. 15 per carton	5,000 cartons
Dept Z	15,000 cartons	17,000 cartons at Rs. 10 per carton	4,000 cartons

The total cost of the purchases amounted to Rs. 6,00,000

Prepare the trading account for three departments in a columnar form

Also show the workings in respect of the following:

- I. Gross profit % assuming that there is no stock situation
- II. Department wise purchase price and value; and
- III. Valuation of opening and closing stocks.

Answer 4: Mau

Departmental Trading Account (For the year ended.....)

Particular	A	R	Z	Particular	A	R	Z

WN1: Calculation of Gross Profit Ratio

WN2: Calculation of Gross Profit Per Unit

	A	R	Z

Q No. 6: 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.

Particular	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
Sale (excluding inter-transfers)	5,72,000	4,60,000
Purchased goods transferred:		
By B to A	50,000	
By A to B		36,000
Finished goods transferred;		
By B to A	1,50,000	
By A to B		1,75,000
Return of finished goods;		
By B to A	45,000	
By A to B		32,000
Closing stock		
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.

Practice Questions [PQ]

PQ 1: (Nov. 2018 - IPCC Group 2) Ram, Sham and Mahaan sons of Prabhu Dyal are running Punya Hotel in Chennai. Ram is heading Room division (A), Sham is heading banquet division (B) and Mahaan is heading Restaurant division (C). Each of the three brothers would receive 60% of the profits, if any, of the department of which he was in charge and remaining combined profits would be shared in 2 : 2 : 1 ratio. The following is the Trading and Profit and Loss Account of the firm for the year ended March 31, 2018:

	(₹)	(₹)		(₹)	(₹)
To Opening Stock:			By Sales:		
Room (A)	25,650		Room (A)	2,70,000	
Banquet (B)	18,000		Banquet (B)	1,65,000	
Restaurant (C)	19,500	63,150	Restaurant (C)	86,700	5,21,700
To Purchases:			By Discount received		1,650
Room (A)	2,35,000		By Closing Stock		
Banquet (B)	1,56,000		Room (A)	55,300	
Restaurant (C)	84,200	4,75,200	Banquet (B)	31,800	
To Salaries		34,400	Restaurant (C)	42,500	1,29,600
To Royalties	8,000				
To Parking fee & Car washing charges	9,600				
To Discount allowed	2,500				
To Misc. Exp.	7,000				
To Depreciation	1,160	62,660			
To Net Profit		51,940			
Total		6,52,950	Total		6,52,950

Prepare:

(I) Departmental Trading and Profit and Loss Account and

(II) Profit and Loss Appropriation Account after incorporating the following information:

(i) Closing stock of Dept. B includes goods amounting ₹3,500 being transferred from Department A.

(ii) Stock value ₹ 9,300 and other goods of the value of ₹1,500 were transferred at selling price by Departments A and C respectively to Department B.

(iii) The details of salaries were as follows:

(1) Admin Office 60%, Pantry 40%

(2) Allocate Admin Office in the proportion of 3: 2: 1 among the Departments A, B, C.

(3) Distribute Pantry expenses equally among the Department A and B.

(iv) The parking fee is ₹ 500 per month which is to be divided equally between Departments A, B & C.

(v) All other expenses are to be allocated in ratio of 2: 2: 1.

(vi) Discounts received are to be credited to the three Departments as follows:

A: ₹650; B: ₹ 600; C: ₹400.

(vii) The opening stock of Department B does not include any goods transferred from other departments and closing stock of Department B does not include any stock transferred from Department C.

Answer:

Departmental Trading and Profit & Loss A/c

Particulars	A	B	C	Particulars	A	B	C
To Opening Stock	25,650	18,000	19,500	By Sales	2,70,000	1,65,000	86,700
To Purchase	2,35,000	1,56,000	84,200	By Closing Stock	55,300	31,800	42,500
To Transfer				By Transfer	9,300		1,500
Dept A		9,300					
Dept B		1,500					
To Gross Profit	73,950	12,000	27,000				
	3,34,600	1,96,800	1,30,700		3,34,600	1,96,800	1,30,700
To Salaries				By Gross Profit	73,950	12,000	27,000
Admin Office	10,320	6,880	3,440	By Disc Received	650	600	400
Pantry	6,880	6,880		By Net Loss		12,064	
To Royalty	3,200	3,200	1,600				
To Parking fee	2,000	2,000	2,000				

To Car Washing	1,440	1,440	720				
To Disc Allowed	1,000	1,000	500				
To Misc Exp	2,800	2,800	1,400				
To Depreciation	464	464	232				
To Net Profit	46,496		17,508				
	74,600	24,664	27,400		74,600	24,664	27,400

General Profit & Loss

Particulars	₹	Particulars	₹
To Net Loss	12,064	By Net Profit	64,004
To Stock Reserve	927		
To Ram: 60% of profit of Dept. A	27,898		
To Mahaan: 60% of Profit of Dept. C	10,505		
To Share in Combined Profit			
Ram	5,044		
Sham	5,044		
Mahaan	2,522		
	64,004		64,004

PQ 2: Brahma Limited has three departments and submits the following information for the year ending on 31st March, 2011:

Particulars	A	B	C	Total (₹)
Purchases (units)	5,000	10,000	15,000	
Purchases (Amount)				8,40,000
Sales (units)	5,200	9,800	15,300	
Selling price (₹ per unit)	40	45	50	
Closing Stock (Units)	400	600	700	

You are required to prepare departmental trading account of Brahma Limited assuming that the rate of profit on sales is uniform in each case.

Answer

Departmental Trading Account for the year ended 31st March, 2011

Particulars	A (₹)	B (₹)	C (₹)	Particulars	A (₹)	B (₹)	C (₹)
To Opening Stock	14,400	10,800	30,000	By Sales	2,08,000	4,41,000	7,65,000
(WN 4)				By Closing	9,600	16,200	21,000

To Purchase (W.N. 2)	1,20,000	2,70,000	4,50,000	Stock (WN 4)			
To Gross profit	83,200	1,76,400	3,06,000				
	2,17,600	4,57,200	7,86,000		2,17,600	4,57,200	7,86,000

Working Notes:**1) Profit Margin Ratio**

Selling price of units purchased:	₹
Department A (5,000 units x ₹ 40)	2,00,000
Department B (10,000 units x ₹ 45)	4,50,000
Department C (15,000 units x ₹ 50)	7,50,000
Total selling price of purchased units	14,00,000
Less: Purchases	(8,40,000)
Gross profit	5,60,000

Profit Margin ratio = $(5,60,000 / 14,00,000) \times 100 = 40\%$

2) Statement showing department - wise per unit cost and purchase cost

Particulars	A	B	C
Selling price per unit (₹)	40	45	50
Less: Profit margin @ 40% (₹)	(16)	(18)	(20)
Purchase price per unit (₹)	24	27	30
No. of units Purchased	5,000	10,000	15,000
Purchases (Purchase cost per unit x units purchases)	1,20,000	2,70,000	4,50,000

3) Statement showing calculation of department - wise Opening Stock (in units)

Particulars	A	B	C
Sales (Units)	5,200	9,800	15,300
Add: Closing Stock (Units)	400	600	700
	5,600	10,400	16,000
Less: Purchases (Units)	(5,000)	(10,000)	(15,000)
Opening Stock (Units)	600	400	000

4) Statement showing department - wise cost of Opening and Closing Stock

Particulars	A	B	C
Cost of Opening Stock (₹)	600 x 24 =14,400	400 x 27 = 10,800	1,000 x 30 = 30,000

Cost of Closing Stock (₹)	400 × 24 = 9,600	600 × 27 = 16,200	700 × 30 = 21,000
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PQ 3: Department X sells goods to Department Y at a profit of 25% on cost & to Department Z at a profit of 10% on cost. Department Y sells goods to X & Z at a profit of 15% & 20% sales, respectively. Department Z charges 20% & 25% profit on cost to Department X & Y, respectively.

Department Managers are entitled to 10% Commission on Net Profit subject to Unrealised Profits on Departmental sales being eliminated.

Departmental profits after charging manager's commission, but before adjustment of unrealised profits are: X = ₹ 36,000; Y = ₹ 27,000; Z = ₹ 18,000.

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

Particulars	X	Y	Z
Transfer from Department X	----	15,000	11,000
Transfer from Department Y	14,000	----	12,000
Transfer from Department Z	6,000	5,000	----

Find out the correct Departmental Profits after charging Manager's Commission.

Answer: Calculation of correct Profits

	Department X (₹)	Department Y (₹)	Department Z (₹)
Profit after charging managers' commission	36,000	27,000	18,000
Add back: Managers' commission (1/9)	4,000	3,000	2,000
	40,000	30,000	20,000
Less: Unrealised profit on stock (See WN)	(4,000)	(4,500)	(2,000)
Profit before Manager's commission	36,000	25,500	18,000
Less: Commission for Depart. Manager @10%	(3,600)	(2,550)	(1,800)
Departmental Profit after Manager's commission	32,400	22,950	16,200

Working Note:

	Stock lying with			
	Dept. X (₹)	Dept. Y (₹)	Dept. Z (₹)	Total (₹)
Unrealised Profit of:				

Department X		$\frac{1}{5} \times 15,000$ = 3,000	$\frac{1}{11} \times 11,000$ = 1,000	4,000
Department Y	$0.15 \times 14,000$ = 2,100	$0.22 \times 12,000$ = 2,400		4,500
Department Z	$\frac{1}{6} \times 6,000$ = 1,000	$\frac{1}{5} \times 5,000$ = 1,000		2,000

PQ 4: Sona Ltd. has three departments - P, Q and R. From the following particulars given below, compute:

- (i) The departmental results;
(ii) The value of stock as on 31st December, 2014:

Particulars	P	Q	R
Stock as on 01.01.2014	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 sales price	25%	33 1/3 %	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	Q	R
Sales at normal price	15,000	8,000	6,000
Sales at actual price	11,000	6,000	4,000

Answer: Departmental Trading A/c for the year ending 31/12/2014.

Particulars	P	Q	R	Particulars	P	Q	R
To Opening Stock	30,000	45,000	15,000	To Sales			
To Purchases	1,60,000	1,30,000	60,000	Normal	1,77,000	1,60,000	89,000
To Gross Profit				Abnormal	11,000	6,000	4,000
Normal Goods	44,250	53,333	35,600				
Add/Less:	(250)	667	400	By, Closing	46,000	63,000	18,000
Abnormal Goods	44,000	54,000	36,000	Stock			
	2,34,000	2,29,000	1,11,000		2,34,000	2,29,000	1,11,000

WN: Calculation of Gross Profit / Loss

Particular	Dept. P	Dept Q	Dept. R
Total Sales	1,88,000	1,66,000	93,000

	At Normal S.P.	At Reduced Price (Other)	At Normal S.P.	At Reduced Price (Other)	At Normal S.P.	At Reduced Price (Other)
Actual Sale	1,77,000	11,000	1,60,000	6,000	89,000	4,000
x Gross Profit Ratio	x 25%		x 33.33%		x 40%	
	44,250		5,333		35,600	
Normal Selling Price of Other Sale		15,000		8,000		6,000
Less: GP		3,750 (15,000 - 25%)		2,667 (8,000 - 33.33%)		2,400 (6,000 - 40%)
Cost of Other Sale		11,250		5,333		3,600
Gross Profit (Loss)		(250)		667		400

PQ 5: State the basis on which the following common expense, the benefit of which is shared by all the departments is distributed among the departments:

- (i) Rent, rates and taxes, insurance of building;
- (ii) Selling expenses such as discount, bad debts, selling commission and other such selling expenses;
- (iii) Carriage Inward;
- (iv) Depreciation;
- (v) Interest on loan;
- (vi) Profit or loss on sale of investment;
- (vii) Wages;
- (viii) Lighting and Heating Expenses

Ans. 5

S.No.	Expenses	Basis
i.	Rent, rates & taxes, insurance of building	Floor area occupied by each department (if given) otherwise on time basis.
ii.	Selling expenses such as discount, bad-debts ect.	Sales of each department.
iii.	Carriage Inward	Purchase of each department.
iv.	Depreciation	Value of assets of each department or time basis.

v.	Interest on loan	Utilisation of loan amount in each department (if identifiable) otherwise in combined p & L A/c
vi.	Interest or loss on sale of investment	Equal or shown in general P & L A/c.
vii.	Wages	Time devoted to each department.
vii	Lighting & Heating expenses	Consumption of energy by each department.