

Cost Accounting

T.Y.B.Com.
(Semester – V)

OVERHEADS

1. The following information is supplied from the costing records of a company :

Particulars	₹	Particulars	₹
Rent	2,000	Insurance (Stock)	1,000
Maintenance	1,200	Employer's contribution to P.F.	300
Depreciation	900	Energy	1,800
Lighting	200	Supervision	3,000

Particulars	Dept. A	Dept. B	Dept. C	Dept. D
Floor space (sq. mtr.)	150	110	90	50
Number of workers	24	16	12	8
Total direct Wages (₹)	8,000	6,000	4,000	2,000
Cost of machinery (₹)	24,000	18,000	12,000	6,000
Stock of goods (₹)	15,000	9,000	6,000	–

Prepare a statement showing apportionment of costs to various departments.

2. The Modern Company is divided into four departments : A, B and C are production departments and D is a service department. The actual costs for a period are as follows :

Particulars	₹	Particulars	₹
Rent	10,000	Fire insurance (Stock)	5,000
Repairs to Plant	6,000	Power	9,000
Depreciation of Plant	4,500	Light	1,000
Supervision	15,000	Employer's Insurance Liability	1,500

The following information are available in respect of the four departments :

Particulars	Dept. A	Dept. B	Dept. C	Dept. D
Area (sq. ft.)	1,500	1,100	900	500
Number of employees	20	15	10	15
Horsepower of machines	800	500	200	–
Total Wages (₹)	60,000	40,000	30,000	20,000
Value of Plant (₹)	2,40,000	1,80,000	1,20,000	60,000
Value of Stock (₹)	1,50,000	90,000	60,000	–
Light points (Nos.)	40	30	20	10

Apportion the costs of the various departments by the most equitable method.

3. A company is having two production departments namely A and B and two service departments S-1 and S-2. The expenses incurred during the month of March, 2014 are as follows :

Expenses	Amount (₹)
Electricity	3,600
Insurance on Assets	9,000

Power	15,000
Rent & Taxes	28,000
Depreciation	18,000
Canteen Expenses	5,400

The following information is also available for the above departments :

Particulars	Dept. A	Dept. B	Dept. S-1	Dept. S-2
Floor space (sq. ft.)	6,000	4,000	2,000	2,000
No. of Workers	100	50	50	25
H.P. of Machine	120	60	30	15
Direct Wages (₹)	10,000	10,000	5,000	3,000
Value of Assets (₹ in thousands)	10	4	3	1
Direct Materials (₹)	15,000	10,000	5,000	–
No. of Light Points	30	15	10	5

Prepare a statement showing Primary Distribution of Overheads.

4. Ambar Ltd. has five departments; P, N, R and S are production departments and T is a service department. The actual cost for a period are as follows :

Particulars	Amount (₹)
Repairs	35,000
Rent	25,000
Depreciation	42,000
Supervision	40,000
Insurance	16,000
Light	18,000
Employer's liability of employees' insurance	6,000

The following information is also available in respect of the five departments :

Particulars	Production Dept.			Service Dept.	
	P	N	R	S	T
Area (sq. ft.)	1,400	1,200	1,100	900	400
No. of Workers	250	300	100	100	50
Total Wages	1,00,000	80,000	50,000	50,000	20,000
Value of Plant	2,00,000	1,80,000	1,60,000	1,00,000	60,000
No. of Light Points	50	40	35	30	25
Value of Stock	1,50,000	1,00,000	50,000	20,000	–

Prepare a statement showing Primary Distribution of Overheads.

5. A company is having three production departments namely A, B and C and two service departments S-1 and S-2. The expenses incurred during the month of March, 2015 are as follows :

Particulars	Amount (₹)
Supervision	30,000
Fire Insurance	10,000
Power	18,000

Light	6,000
Rent	10,000
Repairs & Maintenance	17,000
Depreciation on Plant	8,500

The following information is also available for the above departments :

Particulars	Dept. A	Dept. B	Dept. C	Dept. S1	Dept. S2
Floor space (sq. ft.)	1,500	1,000	900	500	100
No. of Workers	20	10	10	15	5
H.P. of Machine	8	5	2	–	–
Direct Wages (₹)	3,000	2,000	2,000	3,000	4,000
Value of Plant (₹)	12,000	9,000	6,000	3,000	4,000
Value of Stock (₹)	15,000	9,000	6,000	–	–
Light Points	4	2	2	1	1

Prepare a statement showing Primary Distribution of Overheads.

6. Keshav Ltd. has five departments A, B, C, D are production departments and S is a service department. The expenses incurred during the month of March, 2017 are as follows :

Particulars	Amount (₹)
Rent	25,000
Repairs to Plant	17,500
Depreciation on Plant	11,970
Supervision	39,998
Insurance on Stocks	16,000
Recreation	5,992
Lighting	18,000

The following data are also available in respect of the five departments :

Particulars	Production Departments				Service Dept.
	A	B	C	D	S
Area (in sq. ft.)	1,400	1,200	1,100	900	400
No. of Workers	25	20	10	10	5
Direct Wages (₹)	10,000	8,000	5,000	5,000	2,000
Value of Plant (₹)	20,000	18,000	16,000	10,000	6,000
Value of Stock (₹)	15,000	10,000	5,000	2,000	–
No. of Light Points	14	12	11	9	4

Prepare a statement showing Primary Distribution of Overheads.

7. Calculate the overhead allocable to production departments A and B from the following :
There are two service departments X and Y. X renders service to A and B in the ratio of 3 : 2 and Y renders service to A and B in the ratio of 9 : 1. Overhead as per primary overhead distribution is : A : ₹ 49,800; B : ₹ 29,600; X : ₹ 15,600; Y : ₹ 10,800.

8. Small Company Ltd. has three production departments and four service departments. The expenses for these departments as per Primary Distribution Summary were :

Particulars	₹	₹
Production Departments :		
A	15,000	
B	13,000	
C	12,000	40,000
Service Departments :		
Stores	2,000	
Time-keeping	1,500	
Canteen	500	
Power	800	4,800
Total		44,800

The following information are also available in respect of the production departments :

Particulars	Dept. A	Dept. B	Dept. C
Horsepower of machines	300	300	200
Number of workers	20	15	15
Value of stores requisitioned (₹)	2,500	1,500	1,000

Apportion the costs of the various service departments to the production departments.

9. In an engineering factory, the following particulars have been extracted for the year ended 31/12/2017 :

Particulars	Production Department			Service Department	
	A	B	C	X	Y
Direct Wages (₹)	30,000	45,000	60,000	15,000	30,000
Direct Materials (₹)	15,000	30,000	30,000	22,500	22,500
Staff number	1,500	2,250	2,250	750	750
Electricity (Kwh)	6,000	4,500	3,000	1,500	1,500
Asset Value (₹)	60,000	40,000	30,000	10,000	10,000
Light points	10	16	4	6	4
Area (sq. meters)	150	250	50	50	50

The expenses for the period were as follows :

Particulars	₹	Particulars	₹
Power	1,100	Depreciation	30,000
Lighting	200	Repairs	6,000
Stores overhead	800	General overheads	12,000
Welfare to staff	3,000	Rent and Taxes	550

Apportion the expenses of service department Y according to direct wages and those of service department X in the ratio 5 : 3 : 2 to the production departments.

You are required to prepare an Overhead Distribution Summary.

10. Radha Enterprises has three production departments A, B and C and one service department S. The following figures are available for one month of 25 working days of 8 hours each day. All departments worked all these days with full attendance.

Expenses	Total (₹)	Service Dept. (₹)	Production Department		
			A (₹)	B (₹)	C (₹)
Power and Lighting	1,100	300	200	250	350
Supervisor's Salary	1,500	—	—	—	—
Rent	600	—	—	—	—
Canteen expenses	500	—	—	—	—
Others	1,100	140	210	470	280
	4,800				

The following additional information is available :

Particulars	Service Dept.	Production Department		
		A	B	C
Supervisor's Salary	20%	20%	30%	30%
Floor Area in sq. feet	800	700	900	600
Number of workers	20	30	30	20
Service rendered by service department to production departments	—	20%	30%	50%

You are required to calculate the labour hour rate of each of the departments A, B and C.

11. Superclass Co. Ltd. has three production departments X, Y and Z and two service departments A and B. The following estimated figures for a certain period have been made available :

Particulars	Amount (₹)
Rent and Rates	10,000
Lighting and Electricity	1,200
Indirect Wages	3,000
Power	3,000
Depreciation of Machinery	20,000
Other expenses and Sundries	20,000

The following details are provided by the firm :

Particulars	Total	Departments				
		X	Y	Z	A	B
Floor space (sq. mt.)	10,000	2,000	2,500	3,000	2,000	500
Lighting Point (Nos.)	120	20	30	40	20	10
Direct Wages (₹)	20,000	6,000	4,000	6,000	3,000	1,000
Horsepower of Machines	300	120	60	100	20	—
Cost of Machinery (₹)	1,00,000	24,000	32,000	40,000	2,000	2,000
Working Hours	—	4,670	3,020	3,050	—	—

The expenses of the service departments A and B are to be allocated as follows :

	X	Y	Z	A	B
A	20%	30%	40%	–	10%
B	40%	20%	30%	10%	–

You are required to calculate the overhead absorption rate per hour in respect of the three production departments. What will be the total cost of an article with material cost of ₹ 80 and direct labour cost of ₹ 40 which passes through X, Y and Z for 2, 3 and 4 hours respectively.
