

**SERAMPORE COLLEGE**  
**DEPARTMENT OF COMMERCE**  
**B.COM 2<sup>ND</sup> SEMESTER (Hons)**  
**COST AND MANAGEMENT ACCOUNTING - I**

**APPORTIONMENT AND ALLOCATION OF OVERHEAD:**

Overhead means indirect expenses which are incurred in manufacturing process after Prime Cost consisting of Direct Expense to produce Finished Product.

Overhead distribution among various Production Department and Service Department is very important in Cost Accounting System.

**ALLOCATION:**

Many overhead cost can easily be identified with original departmental production or service such as indirect material, Labour, Supervision, Repair, Depreciation on Machinery etc.

At the time of Primary Distribution all these overhead are allocated to that specific department.

**APPORTIONMENT:**

Many overhead cost are incurred for factory as a whole not for any particular department such as Rent, Power, Insurance of Building etc.

At the time of primary distribution all those overhead cost are apportioned among manufacturing and service department.

**PRIMARY DISTRIBUTION:**

The process of allocation and apportion of different overhead costs to manufacturing and service department is known as Primary Distribution. In doing so no difference is made between manufacturing and service department.

**SECONDARY DISTRIBUTION:**

Service department does not produce any saleable product but it is essential for running Manufacturing Process. Expenses of service department are absorbed by manufacturing department that is to say the process of re-allocation of total of each service department to manufacturing department and other service department is known as Secondary Distribution.

First we make primary distribution and then we make Secondary Distribution to find the total cost of each manufacturing department.

Some common manufacturing overhead costs are apportioned on the following basis:

<b>COMMON MANUFACTURING COST</b>	<b>BASIS OF DISTRIBUTION</b>
Rent	Floor area (square feet)
Depreciation on Building	Floor area (square feet)
Depreciation on Machinery / Repair	Machine Value
Lighting	Light Point
Indirect Material	Direct Material
Workers Welfare Expense	No. of. Workers
Indirect Wages	Direct Wages
Consumable Stores / Stores	Direct Material
Sundry Expenses	Direct Wages
Canteen Expenses	No. of. Workers
Power	Kilowatt Hr / H.P. of Machine
Supervisor Expense	No. of. Workers
General Overhead	Direct Wages
Audit Fees	Sales

**NOTE:**

**Direct Material, Direct Labour, Chargeable Expenses will be charged to service department only not to production department under overhead distribution system.**

**PROBLEM:**

Calculate overhead allocation to production department X & Y from the following. There are also two service department A & B. A renders service to B Rs 12000 and balance to X & Y in the ratio 3:2, B renders service to X & Y as 9:1.

	X	Y	A	B
Floor Area (Sq. ft)	5000	4000	1000	2000
Plant (in Rs lakhs)	10	5	3	1
Horse Power(H.P) of machine	1000	500	400	100
No. of workers	100	50	50	25
Light Points	50	30	20	20
Direct Material (in Rs)	15000	10000	8000	4000
Direct Labour (in Rs)	5000	4000	5000	2000

Other expenses & charges for a month are as follows

Depreciation of machine	Rs 190000
Rent & Rates	Rs 36000
Insurance of Factory	Rs 12000
Power	Rs 24000
Canteen Expense	Rs 10800
Electricity	Rs 20000
Sundries	Rs 48000
Supervision Expense	Rs 18000

**SOLUTION:****ALLOCATION AND APPORTIONMENT OF FACTORY OVERHEAD TO  
PRODUCTION AND SERVICE DEPARTMENT:**

PRIMARY DISTRIBUTION						
DETAILS	BASIS OF ALLOCATION	TOTAL	PRODUCTION DEPT		SERVICE DEPT	
			X	Y	A	B
Depreciation of Machine	cost of machine (10:5:3:1)	1,90,000	1,00,000	50,000	30,000	10,000
Rent & Rates	Floor Space (5:4:1:2)	36,000	15,000	12,000	3,000	6,000
Factory Insurance	Floor Space (5:4:1:2)	12,000	5,000	4,000	1,000	2,000
Power	Light Points (5:3:2:2)	24,000	10,000	6,000	4,000	4,000
Canteen Expense	No. of. Workers (4:2:2:1)	10,800	4,800	2,400	2,400	1,200
Electricity	H.P. Of Machine (10:5:4:1)	20,000	10,000	5,000	4,000	1,000
Sundry Expenses	Direct Labour (5:4:5:2)	48,000	15,000	12,000	15,000	6,000
Supervision Expenses	No. of. Workers (4:2:2:1)	18,000	8,000	4,000	4,000	2,000
		<b>3,58,800</b>	<b>1,67,800</b>	<b>95,400</b>	<b>63,400</b>	<b>32,200</b>
<b>SECONDARY DISTRIBUTION OR REAPPORTIONMENT OF SERVICE DEPT TO PRODUCTION DEPT</b>						
Absorbtion of service Dept B Rs 12,000 to Dept A					12,000	-12,000
					<b>75,400</b>	<b>20,200</b>
Absorbtion of balance of service dept B to X & Y as 3:2			12,120	8080		-20,200
			<b>1,79,920</b>	<b>1,03,480</b>		
Absorbtion of service dept A to X & Y as 9:1			67860	7540	-75400	
<b>TOTAL OVERHEAD AS ALLOCATED</b>			<b>2,47,780</b>	<b>1,11,020</b>		

**For any query contact N.B. 9830953576**