**Assignment on overhead**

1. Raj Co. Ltd has three production departments- A, B and C and two service departments –D and E. The following figures are extracted from the records of the company:

Rent and rates- Rs5,000, General lighting Rs600, Indirect wages Rs1,500, Power- Rs1,500, Depreciation on machinery – Rs10,000 and Sundries –Rs10,000.

The further details are as follows:

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Particulars | Total | A | B | C | D | E |
| Floor space in sq.ft | 10,000 | 2,000 | 2,500 | 3,000 | 2,000 | 500 |
| Light points | 60 | 10 | 15 | 20 | 10 | 5 |
| Direct wages (Rs) | 10,000 | 3,000 | 2,000 | 3,000 | 1,500 | 500 |
| H.P of machine | 150 | 60 | 30 | 50 | 10 | - |
| Value of machine (Rs) | 2,50,000 | 60,000 | 80,000 | 1,00,000 | 5,000 | 5,000 |

Apportion the costs to various departments on the most equitable basis.

**Ans- Department overhead A- 7,550, B-7,200, C-9,650, D- 4,625 and E- 1,575**

1. Mohan Ltd. has four departments. The following are the expenses for a period of 3 months.

Rent-Rs1,000, Repairs- Rs600, Depreciation- Rs450, light- Rs100, supervision- Rs1,500, insurance on plant- Rs500, employee insurance- Rs150, Power- Rs900

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Department | A | B | C | D |
| Area in square ft. | 75 | 55 | 45 | 25 |
| Total wages in Rs | 4,000 | 3,000 | 2,000 | 1,000 |
| No of workers | 12 | 8 | 6 | 14 |
| Value of plant | 12,000 | 9,000 | 6,000 | 3,000 |

Write a statement showing the apportionment of cost of the various departments under the head Primary Departmental Distribution Summary.

**Ans- A- 5,200, B-1,483, C- 1,067 and D-597**

1. Chandra Ltd. provides you the following information for the year 31st December 2016.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Particulars | Production Dept | | | Service Dept. | |
| A | B | C | X | Y |
| Direct wages (Rs) | 30,000 | 45,000 | 60,000 | 15,000 | 30,000 |
| Direct materials ( Rs) | 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 ( Rs) | 60,000 | 40,000 | 30,000 | 10,000 | 10,000 |
| Light points | 10 | 16 | 4 | 6 | 4 |
| Area in sq. meter | 150 | 250 | 50 | 50 | 50 |

The expenses for the period were as follows:

Power-1,100, lighting -200, stores overhead- 800, welfare to staff- 3,000,

Depreciation- 30,000, repairs- 6,000, General overhead- 12,000, Rent and tax- 550.

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

You are required to prepare overhead distribution summary.

1. 17,700, B-14,330, C-12570, X- 41,530, Y- 57,520
2. A company has three production department A, B and C and two service department P and Q. The expenses incurred by them during the month are:
3. Rs80,000, B- Rs70,000, C- Rs50,000, P- Rs23,400, Q –Rs30,000

The expenses of service departments are apportioned to the production department on the following basis:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dept. | A | B | C | P | Q |
| P | 20% | 40% | 30% | Nil | 10% |
| Q | 40% | 20% | 20% | 20% | Nil |

Prepare overhead distribution summary under

1. Repeated distribution method
2. Simultaneous equation method
3. A company has three production department A, B and C and two production department X and Y. The expenses incurred by them during the year as follows:

A-2,500, B- 3,100, C- 2,800, X- 800, Y-1,390

The costs of the service departments are to be distributed using the following bases of apportionment:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dept . | A | B | C | X | Y |
| X | 30% | 20% | 40% | Nil | 10% |
| Y | 40% | 15% | 25% | 20% | Nil |

Prepare overhead distribution summary under

1. Repeated distribution method
2. Simultaneous equation method
3. Following particulars relating to a manufacturing company which has three production departments P1, P2 and P3 and two service departments S1 and S2.

The expenses incurred by them during the year as follows:

P1-6,300, P2-7,400, P3- 2,800, S1- 4,500 and S2-2,000

The company decided to charge the service department cost on the basis of following percentages:

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dept . | P1 | P2 | P3 | S1 | S2 |
| S1 | 40% | 30% | 20% | Nil | 10% |
| S2 | 30% | 30% | 20% | 20% | Nil |

Prepare overhead distribution summary under

1. Repeated distribution method
2. Simultaneous equation method
3. A company has three production departments and two service departments, and for a period the departmental distribution summary has the following totals:

P1- 800, P2- 700, P3-500, S1-234, S2-300

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Dept . | P1 | P2 | P3 | S1 | S2 |
| S1 | 20% | 40% | 30% | Nil | 10% |
| S2 | 40% | 20% | 20% | 20% | Nil |

Prepare overhead distribution summary under

1. Repeated distribution method
2. Simultaneous equation method