

**UCCC & SPBCBA & SDHGCBCA & IT**

**S.Y.B.com Sem. – 3**

**Advanced Accounting and Auditing Paper – 1**

**Accounting for overheads:**

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1. Show the basis of allocation for the overheads given below:

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|----------------------|-------------------------|
| [a] Canteen expenses | [b] Contribution to ESI |
| [c] Rent and taxes   | [d] Salary of Watchman  |
| [e] Power            | [f] Sundry expenses     |
| [g] Indirect wages   | [h] Depreciation        |

2. A company has three production departments and two service departments. Distribution summary of overheads is as follows:

Production departments:

A	Rs 13,600
B	Rs 14,700
C	Rs 12,800

Service departments:

X	Rs 9000
Y	Rs 3000

The expenses of service departments are charged on a percentage basis which is as follows:

	A	B	C	X	Y
X department	40%	30%	20%	-	10%
Y department	30%	30%	20%	20%	-

Apportion the cost of service departments.

3. A,B,C are production departments and D is the service departments in Valsad Ltd. The details of the expenses during the month of April are as under:

Power Rs 5000

Workers welfare expenses Rs 4400

Maintenance expenses Rs 2200

General expenses Rs 1200

Insurance premium Rs 3200

Other information:

Particulars	A	B	C	D
Direct labour Rs	6000	9000	12,000	3000
Number of employees	300	450	250	100
Kilo watt	200	150	100	50
Value of assets Rs	1,00,000	75,000	50,000	25,000

Allocate the expenses of service department 'D' to production departments in the ratio of 5:3:2.

Prepare department wise statement of allocation of overheads.

[V.N.S.G.U Nov 2018]

4. In a factory there are three Production Departments A, B and C and two Service Departments X and Y. The expenses of Service Department Y are

allocated in the ratio of direct wages and Department X in the ratio of 5:3:2 to the Production Departments A, B and C respectively:

Particulars	Production departments			Service departments	
	A	B	C	X	Y
Direct wages	60,000	90,000	1,20,000	30,000	60,000
Direct material	30,000	60,000	60,000	45,000	45,000
Number of staff	3000	4500	4500	1500	1500
Lighting point	20	32	8	12	8
Space occupied (sq. ft)	300	500	100	100	100
Electricity (kwh)	12,000	9000	6000	3000	3000
Cost of machinery	1,20,000	80,000	60,000	20,000	20,000

Overhead expenses are as under:

Particulars	Amt (Rs)
Power	2200
Electricity	400
Stores expenses	1600
Staff welfare expenses	6000
Depreciation	60,000
Repairing	12,000
Rent & taxes	1100
General expenses	24,000

You are required to:

- [1] Allocate overheads among the departments.
- [2] Determine rate of overheads on the basis of direct labour.

[V.N.S.G.U Nov 2015]

5. HNG Co. ltd has three production departments H,N and G and two service departments A and B. The details of expenses during March 2013 are as under:

Particulars	Amt (Rs)
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Rent and rates	10,000
General lighting	1200
Indirect wages	3000
Power	3000
Depreciation on machines	20,000
Sundries	20,000

Other information:

Particulars	H	N	G	A	B
Floor space used (sq. mt)	2000	2500	3000	2000	500
Lighting points (No.)	20	30	40	20	10
Direct wages (Rs)	6000	4000	6000	3000	1000
Horse power of machine	120	60	100	20	-
Cost of machine (Rs)	24,000	32,000	40,000	2000	2000
Production hours	4670	3020	3050		

Service department expenses allocation:

Particulars	H	N	G	A	B
Service Dept. A	20%	30%	40%	-	10%
Service Dept. B	40%	20%	30%	10%	-

You are required to prepare:

- [1] A statement showing distribution of overhead expenses.
- [2] A statement showing allocation of expenses of service department to production department.
- [3] Rate of overheads per hour.

[V.N.S.G.U Nov 2013]

6. The overhead cost and production of two months are as under:

Month	Total overhead cost [Fixed + Variable]	Production (units)
January	Rs 50,000	1000
February	Rs 60,000	1500

Find the amount of fixed overhead.

7. The following information have been received from the production department of a factory:

Estimated factory overhead for the year – Rs 1,17,360

Estimated direct labour cost for the year – Rs 1,95,600

Estimated machine hours – 97,800

Calculate the overhead absorption rates using the following methods:

[1] Direct labour cost method

[2] Machine hour rate method [V.N.S.G.U. Mar. 2007]

8. In padmavati co. ltd the machine shop has a machine. The power expenses amounted to Rs 5200 which is 25% of total yearly variable expenses of the machine. Total fixed expenses amounted to Rs 19,200 per annum. The machine consumes 1.60 units of power per hour at the cost of Rs 0.65 per unit. Calculate the machine hour rate.

[V.N.S.G.U. Mar. 2009]

9. From the following information calculate machine hour rate for Machine A:

[1] Cost of machine – Rs 5,12,500 Useful life – 10 years, Scrap value – Rs 25,000, Installation expenses – Rs 12,500.

[2] Workers welfare expenses of Machine A monthly is Rs 250

[3] Power consumption of Machine A yearly – Rs 50,000

[4] Insurance premium of Machine A – 3%

- [5] Wages of 2 labourers for 4 machines monthly Rs 6000 each
- [6] Hire purchase installment (including 10% interest) is Rs 46,750
- [7] Repairs and maintenance expenses for 4 machines yearly – Rs 16,600
- [8] Supervisor salary – monthly Rs 24,000, supervisor spends  $\frac{3}{4}$  time in supervision of all machines.
- [9] Factory rent monthly Rs 6000. Total 4 identical machines are installed in total space of the factory.
- [10] Power consumption of Machine A is 2 units per hour. Rate per unit is Rs 5.
- [11] Lighting expenses bi-monthly of Machine A is Rs 500

*[V.N.S.G.U. Nov 2018]*

10. The following annual charges are incurred in respect of machines in ‘Nisarg Limited’, where work is done by means of five machines of exactly similar type and specification:

- [1] Rent and rates [space occupied by machine] Rs 10,000
- [2] Depreciation on each machine’s Rs 600
- [3] Repairs and maintenance for five machines Rs 2000
- [4] Power consumed [@ Rs 1 per unit] Rs 60,000
- [5] Electric charges for lighting Rs 2000
- [6] Attendants: There are two attendants for the five machines and they are each paid Rs 2000 p.m. Rs 4000
- [7] For the five machines there is one supervisor who is paid Rs 3000 p.m.

- [8] Sundry supplies Rs 500
- [9] Hire purchase installment payable for the machine  
[including Rs 500 as interest] Rs 2500
- [10] The machine uses 10 units of power per hour

Calculate the machine hour rate for the machine:

[V.N.S.G.U. Mar. 2011]

11. The following figures relate to overheads of a factory for the month of March 2020. You are requested to compute a machine hour rate in respect machine A which works for 100 hours in a month:

Overhead expenses	Rs
Rent and rates	3600
Lighting	2000
Depreciation Annual	36%
Indirect Wages	1000
Misc. expenses	1500
Canteen expenses	2000
Repairs	4000

The other additional information are as under:

Particulars	Machine A	Machine B	Machine C
Area occupied (Sq.ft)	10	20	30
Light points	1	3	6
Value of machine (Rs)	25,000	15,000	10,000
Number of workers	2	4	4
Direct Wages (Rs)	2000	3000	5000
Power charges	250	150	200

[V.N.S.G.U. Mar 2015]

12. Calculate machine hour rate from the following information of Janmesh Co. Ltd:

Original cost of machine	Rs 55,000
Present replacement cost of machine	Rs 50,000
Book value of machine	Rs 30,000
Installation charges	Rs 10,000
Estimated scrap value at the end of working life of 10 years	Rs 5000
Rent and rates of the shop quarterly	Rs 900
General lighting of the shop monthly	Rs 250
Insurance premium for the machine yearly	Rs 750
Estimated repairs and maintenance charges:	50 % of depreciation
Power consumption is	10 units per hour.
Power expenses yearly	Rs 3800 at Rs 19 per 100 units.
Supervisor's monthly salary	Rs 1000
Steam and water consumption half yearly	Rs 1100

Additional information:

[1] The machine occupies  $\frac{1}{4}$ <sup>th</sup> space of the shop.

[2] Out of 12 points, 3 points are for that machine.

[3] The supervisor also looks after 4 other machines

[4] Hire purchase installment for the machine (including 5 % as an interest) Rs 4200 per annum. [V.N.S.G.U. Mar. 2008]

13. Janak Ltd. uses four identical large machines and eight identical small machines. Details of each large and small machine is given below:

Particulars	Large	Small
Price of each machine (Rs)	30,000	6000

Useful life (Hours)	18,000	12,000
Repairing (During the life Rs.)	5000	1500
Scrap Value (Rs.)	5000	500
Power consumed (Unit per hour)	20	10
Workers employed (on each machine)	6	4
Space occupied	$\frac{1}{8}$	$\frac{1}{16}$

Annual working hours	2400
Manager salary annual	Rs 9000
Lighting power annual	Rs 3600
Power cost per unit	Rs 0.20
Factory rent annual	Rs 12,000

The manager's 50% of the time allotted to workshop supervision which is divided equally among all the machines. Lighting power cost to be apportioned in the ratio of workers employed on machine. Entire process in the factory is based on machine hours.

Taking the period of 3 months ended on 31<sup>st</sup> March 2020 as a basis, calculate the machine hour rate for each of the large and small machine respectively.

[V.N.S.G.U. Mar. 2017]