Course: Cost Accounting (8408)
Semester: Autumn, 2021

ASSIGNMENT No. 1

Q. 1 how do the activities of manufactures, merchandisers, and service businesses differ?

Managerial accounting is just as important in a service company as it is in a manufacturing company or a merchandising company (see the functions above). However, there is a significant difference in the cost determination between the different types of companies. A manufacturing company uses labor and other inputs to transforms raw materials into finished product and then sells the product, like a merchandising company. A service company, on the other hand, does not produce/sell products, instead it provides service. The major difference between the three types of companies can be found in the cost of goods sold (services provided) calculation.

Service Company	**Merchandising Company**	**Manufacturing Company**
Cost of services provided: Primarily labor and overhead costs	Cost of goods sold: Net purchase price	Cost of goods manufactured Materials Labor Overhead

All three types of companies need to determine the costs of product or services to

- Properly price goods or services (planning)
- To determine profitability (evaluation)

A final, very important function of managerial accounting is to develop plans and policies to ensure internal control and that company objectives are accomplished (control).

• Product cost - costs that can be associated with manufacturing a product either directly or indirectly **Examples:** • Raw material; labor • Manufacturing equipment depreciation • Supervisor's salary	• Period cost - costs that cannot be associated with specific products and are expensed in the period in which they are incurred **Examples:** • Corporate advertising • Depreciation of corporate headquarter • Selling expenses • Insurance
• **Direct (prime) Cost** - costs that are directly related and identifiable with producing a specific product. Usually raw materials and labor.	• **Indirect Costs - (Overhead) -** costs of materials or labor that are necessary for production but cannot easily be measured for each product item. •
Example of Direct Cost, Indirect Cost and	**Indirect Cost Examples:**

<table>
<tr><td colspan="4">Overhead Allocation
XYZ manufactures two products: (A) and (B).
Direct Costs</td><td rowspan="2">Incidental materials (nails, screws, adhesives, etc.)
Incidental labor (equipment maintenance, supervisor)
Utilities
Joint costs (i.e., two products use the same indirect materials)
Depreciation on equipment used in the manufacturing process</td></tr>
<tr><td>A
Materials

Labor
Total direct costs</td><td>
2 pounds @ $ 3
3 hours @ $15/hour
$ 51</td><td>B
Material

Labor
Total direct costs</td><td>
3 pounds @ $1.75
5 hours @ $12/ hour
$65.25</td></tr>
<tr><td colspan="4">Indirect Costs for A and B</td><td>Overhead allocation</td></tr>
<tr><td colspan="2">A:
Indirect Material: $ 5
Indi. Labor: 1.5hours @ $9</td><td colspan="2">B:
Indirect Material: $ 2
Indirect labor: 1hour @ $10</td><td>Overhead is allocated to products according to some system
Examples:</td></tr>
<tr><td colspan="4">Overhead is allocated using direct labor hours: 10,000 units of A and 4,000 units of B are produced with the same equipment. Total depreciation for the equipment for the period: $12,000
Other overhead costs total $18,000.</td><td rowspan="2">Labor hours
Machine hours
Some other method designed to accomplish certain managerial objectives (i.e., as a motivational or control tool)</td></tr>
<tr><td colspan="2">Total hours (A) 30,000
Overhead allocation/unit: 30,000/50,000*3 = $1.80/unit</td><td colspan="2">Total hours (A): 20,000
Overhead allocation/unit: 30,000/50,000*5 = $3/unit</td></tr>
<tr><td colspan="2">Total costs per unit (A)</td><td colspan="2">Total costs per unit (B)</td><td></td></tr>
<tr><td>Direct</td><td>$ 51</td><td>Direct costs</td><td>$65.25</td><td></td></tr>
</table>

costs Indirect costs Overhead **Total/unit**	$18.50 $1.80 **$71.30**	Indirect costs Overhead **Total/unit**:	$12 $3 **$80.25**	

Q. 2 Statement of cost of goods manufactured; income statement; balance sheet. The adjusted trial balance for Indy Furniture Company on November 30, the end of its first month of operation, is as follows:

Indy Furniture Company

Trial Balance

November 30, 2011

Cash	**$21,800**
Accounts Receivable	**16,200**
Finished Goods	**13,900**
Work in Process	**______**
Materials	**7,400**
Building	**300,000**
Accumulated Depreciation —Building	**$3,000**
Machinery and Equipment	**88,000**
Accumulated Depreciation — Mach. And Equip.	**2,200**
Accounts Payable	**8,900**
Payroll	**______**
Capital Stock	**422,550**
Sales	**68,300**
Cost of Goods Sold	**42,450**
Factory Overhead	**______**
Selling and Administrative Expenses	**15,200**
$504,905	**504,950**

The general ledger reveals the following additional data:

a) There were no beginning inventories

b) Materials purchases during the period were $33,000.

c) Direct labor cost was $18,500

d) Factory overhead costs were as follows:

Indirect materials	**$1,400**

Indirect labor	**4,300**
Depreciation — building	**3,000**
Depreciation— machinery and equipment	**2,200**
Utilities	**2,750**
	$13,650

Required:

1. **Prepare a statement of cost of goods manufactured for the month of November.**

Direct Materials:		
Inventory, November 1	$ 0	
Add Purchases	33,000	
Total cost of available materials	$33,000	
Less inventory, November 30	7,400	
Cost of materials used	$25,600	
Less indirect materials used	1,400	
Cost of direct materials used in production		$24,200
Direct labor		18,500
Factory overhead:		
Indirect materials	$ 1,400	
Indirect labor	4,300	
Depreciation of building	3,000	
Depreciation of machinery and equipment	2,200	
Utilities	2,750	
Total factory overhead		13,650
Cost of goods manufactured during the month		$ 56,350

2. **Prepare an income statement for the month of November. (Hint: Check to be sure that your figure for Cost of Goods Sold equals the amount given in the trial balance.)**

Sales		$ 68,300
Cost of goods sold:		
Finished goods inventory, November 1	$ 0	
Add cost of goods manufactured	56,350	
Goods available for sale	$56,350	
Less finished goods inventory, November 30	13,900	42,450
Gross profit on sales		$ 25,850
Selling and administrative expenses		15,200
Net income		$ 10,650

3. **Prepare a balance sheet as of November 30. (Hint: Do not forget Retained Earnings.)**

Assets

Current assets:			
Cash			$ 21,800
Accounts receivable			16,200
Inventories:			
Finished goods		$ 13,900	
Work in process		0	
Materials		7,400	21,300
Total current assets			$ 59,300
Plant and equipment:			
Building	$300,000		
Less accumulated depreciation	3,000	$ 297,000	
Machinery and equipment	$ 88,000		
Less accumulated depreciation	2,200	85,800	
Total plant and equipment			382,800
Total assets			$ 442,100

Liabilities and Stockholders' Equity

Current liabilities:		
Accounts payable		$ 8,900
Stockholders' equity:		
Capital stock	$422,550	
Retained earnings	10,650*	
Total stockholders' equity		433,200
Total liabilities and stockholders' equity		$442,100

* Since this is the first month of operations, there are no beginning retained earnings; nor does it appear dividends were paid, so the current month's net income is the ending retained earnings.

Q. 3 FIFO Costing:

Using first-in, first-out; perpetual inventory costing; and the following information, determine the cost of materials used and cost of the July 31 inventory:

July 1 Balance on hand, 1,000 yd of linen @$4.00 each.

3 Issued 250 yd.

5 Received 500 yd@ $4.50 each

6 Issued 150 yd.

10 Issued 110 yd.

11 Factory returned 10 yd, which were issued on the 10th, to the storeroom.

15 Received 500 yd$5.00 each

20 Returned 300 yd to the vendor from the July 15 purchase

26 Issued 600 yd.

FIFO costing

Date	Receipts	Issue	Balance

	Quantity	Rate	Amount	Quantity	Rate	Amount	Quantity	Rate	Amount
July 1							1000	4	4000
July 3				250	4.00	1000	750	4	3000
July 5	500	4.50	2250				750 500	4 4.50	3000 2250
July 6				150	4.00	600	600 500	4 4.50	2400 2250
July 10				110	4.00	440	490 500	4 4.50	1960 2250
July 11	10	4.00	40				490 510	4 4.50	1960 2295
July 15	500	5.00	2500				490 510 500	4 4.50 5	1960 2295 2500
July 20				300	5.00	1500	190 510 500	4 4.50 5	760 2295 2500
July 26				600	4.00	2400	100 500	4.50 5	450 2500
			4790			**5490**			**2950**

- Cost of purchase = 4790
- Cost of material used = 5490
- Value of ending inventory = 2950

Q. 4 briefly stated, what are the advantages and disadvantages of

(a) The hourly rate wage plan

The Advantages of Hourly Wages:

The following mentioned are few top benefits of hourly pay. They are

1. Number of hours worked:

An advantage of the hourly wage rate is that a worker is paid for the hours he actually works.

For example, if a worker works for 8 hours a day, then he will be paid for a complete 8 hours and if works overtime, then he will be paid more for that.

2. Fluctuations in the salary:

When employees working on an hourly wage rate basis get a higher wage rate at some other place, then they can shift to that other place and can earn extra income.

This is an advantage because they are not bound by any contract so they can easily shift to that other place, where they can earn extra income by working the same number of hours.

3. Extra pay for overtime:

Sometimes a company has to meet its deadlines in a short period of time. In such a case the employees who are hired on salaried basis will be paid only the amount both the employer and the employee has agreed upon.

But, the worker who works on hourly wage rate will get additional income if they are asked to work more hours to meet the deadline.

Here the hourly rate workers can even demand extra overtime wages from the employers.

4. Hourly wage rate employees have fixed money to spend:

An employee can make the outlay for the monthly expenditure, but he cannot spend more than that even after working for more hours than specified.

This helps the employees to fix the limit of their expenditure and avoid wastage of money.

5. Hourly wages are less responsible than salaried wages:

Those who get salary are not only professionally qualified but also bears the responsibility for the growth of the company.

So, employees working on an hourly basis are generally not held responsible if anything goes wrong with the work process of the company.

6. Wage earners maintain quality of products:

Quality of products is maintained when they are manufactured by wage earners because their supervisors ensure that the quality of the products is maintained.

As the employees who work on an hourly basis are paid according to the time spent at the workplace, they will try to maintain the quality although the quantity might be less.

But, those who are working on salaried basis are under constant pressure to meet the targets, so they will try to meet the quantity rather than the quality of the product or the service they provide.

7. Hourly wage earners can separate work and home:

Employees who get hourly wages are able to separate their work and home because they are bound to work fixing a number of hours.

Once the working hours are over, they are free to be on their own. But salaried employees have deadlines to meet and they will have to work once the working hours are over if they are lacking behind.

8. Insurance cover:

Insurance coverage is an important aspect of any job opportunities. Generally, wage earners get insurance coverage of a lower level.

Insurance coverage provides a sense of security to the employees so they are ready to risk up to a certain level. But, salaried employees do get an insurance coverage for their job. The limit of the insurance money depends on the level at which the employee is working in the organization.

9. Contract with the employer:

Hourly wage earners generally don't have any written contract with the employers. The terms and conditions between the employer and the employee is verbal and all the conditions of working are decided only then and there.

Whereas the contract with the salaried employees is well documented and all the terms and conditions are well worked in advance.

10. Fluctuating job security:

Although no job is permanent, but those employees who are working on an hourly wage basis have more job fluctuations as there is no written contract and also the moment the employer gets workers who are ready to work for less money they are hired.

So, they can work at any workplace where they get more salary.

11. No legal action can be taken against them:

Wage earning employees cannot be charged against any legal obligation because they are not bound by any contract.

If they are not able to meet the deadlines, then no legal action can be taken against them.

12. Limitation of income growth:

Hourly wage earners get instant income growth, although the increment may be less and is directly related to the number of hours worked.

Income growth is an important aspect to motivate employees to work hard.

13. Accountability of the employees to the employer:

Salaried employees are accountable to the higher authorities for the work performance of the employees irrespective of the reasons of the delay to meet the targets.

Wage-earners, on the other hand, have to be accountable but they have to be answerable only to the person who employs them.

This is one of the major advantages of an hourly wage rate because these employees do not fear losing the job as they don't have any written contract with the employer.

14. **Additional perks** offered to the employees by the company:

Hourly wage earners get less additional perks from the company which may be offered to the salaried employees.

The quantity and the quality of the perks are directly related to the level at which the employee is working in the company. Since these employees are not professionally qualified this is an advantage they get

15. Wait for the paycheck:

Hourly wage earners are able to get the wages on a daily basis because their pay is directly related to the number of hours worked.

Generally, an employer pays such employees on a daily basis as per the number of hours worked. But, the salaried employees have to wait for the entire month to get their paychecks and the employee might have to face difficulties in case there is an emergency that the employee has to face.

To face such a situation, the employee must have a habit of saving money from their income.

Disadvantages of Hourly Rate Wage:

1. Number of hours worked by the employees:

An employee is paid according to the number of hours he works in the workplace. Salaried employees have fixed salary per month as it does not depend on the number of hours they work.

But, workers working on an hourly wage rate basis have to work for extra time to earn that extra income.

2. No guaranteed salary per month:

Employees working on an hourly wage rate basis do not have any fixed income. These employees have to work extra hours to get that extra income.

If these employees have to meet an extra expense any month then they will have to spend extra hours at the workplace and meet their requirements.

3. Lesser amount of extra work time:

Employees when work for overtime they are given extra money. Employees working on an hourly wage rate are also given extra money, but they don't get a salary equivalent to the salaried employees.

Salaried employees are paid more salary because they are more qualified than the employees working on an hourly wage rate.

4. Wages are lost when an employee is absent due to medical reasons:

Medical emergencies can be faced by any individual any time. Employees working on an hourly wage rate when make themselves absent, then the wages earned by them are also lost and their monthly income schedule is also lost.

Such employees might even neglect their health if they are much in need of money.

5. Hour rate wage earners cannot determine their monthly payroll:

Employees working on an hourly basis cannot determine their monthly payroll in order to know how much can they spend every month. This stops the employees to make any investments if they wish to do so.

6. Hourly employees are less qualified as compared to salaried employees:

Employees working on an hourly basis are generally less qualified than the salaried employees and thus they get less salary.

These workers are professionally less qualified and generally work at the ground level.

7. Wage earners might not get a regular job:

These employees might not get a regular job and thus their monthly income also suffers. These employees might find it difficult to meet their daily expenses if their job is lost.

They don’t have any written contract with the employer, so they don’t get any compensation also.

8. No participation in the decision making of the company:

Employees working on an hourly wage basis, generally don’t have any say in the decision making of the company.

These employees cannot say if they want the policies to be changed and if it is done they have to go through long procedures.

9. No legal support:

Wage earning employees doesn’t have any legal support because there is no written contract between him and the employer.

If the employer terminates them from the job then they have to leave without any support from legal front.

10. Lower benefit packages of the employees:

Employers generally offer lower benefits packages to the employees who are working on hourly wage rate plan.

(b) The piece-rate wage plan?

Advantage: Time Efficient

Paying a worker by output encourages the worker to manage time so as to increase the output. This also warrants less supervision, as the worker is already incentivized to work harder.

Advantage: Production Efficient

When paid per piece, workers tend to develop and adhere to the most efficient means of production. Workers have a vested interest in achieving the company’s goals in the most efficient way possible, because they're achieving more both for the company and for themselves.

Advantage: Cost Accountable

It's easier to calculate the cost per unit, because it's easier to factor in the cost of labor. Calculate the time spent producing the product, which is the labor, and then add materials and shipping, and you can see that it's easy to arrive at a transparent manufacturing cost.

Disadvantage: Hindered Production

It's virtually impossible to predict how much product can be created within a set time under this system, because the system doesn’t easily lend itself to regulating and encouraging a production line.

Disadvantage: Sick or Injured Workers

Working for piece-rate pay means that workers might come to work when they are ill, thereby risking the health of their coworkers. This could shut down or seriously reduce production output. Additionally, depending on the materials and equipment, if workers are working too quickly in an attempt to produce more, workers could potentially injure themselves, which could open up the company to liability.

Disadvantage: Reduced Quality

When the focus is on quantity, the output the quality may suffer. Such a system requires dedicated employees who are determined to learn their craft thoroughly and then to increase the output. Employees are human, however, and it can be difficult to work at a rapid pace over a long duration. This can mean that employees may continue to work at a rapid pace but that production may produce items of reduced quality.

Q. 5 Journal entries for a manufacturer

On December 1, Lake George Production Company had a work in process inventory of 1,200 units that were complete as to materials and 50% complete as to labor and overhead. December 1 costs follows:

Materials..$6,000

Labor...2,000

Overhead..2,000

During December the following transactions occurred:

a) Purchased materials costing $50,000 on account.

b) Placed direct materials costing $49,000 into production

c) Incurred production wages totaling $50,000.

d) Incurred overhead costs for December:

Depreciation...$20,000

Utilities.....................................28,000 (Cash payment)

Salaries.....................................11,000 (Cash payment)

Supplies...................................2,000 (From inventory)

e) Applied overhead to work in process at a predetermined rate of 125% of direct labor cost.

f) Completed and transferred 10,000 units to Finished Goods. (Hint: You should first compute equivalent units and unit costs.)

Lake George uses an average cost system. The ending inventory of work in process consisted of 1,000 units that were completed as to materials and 25% complete as to labor and overhead.

Required: Prepare the journal entries to record the above information for the month of December.

Total Unit = 10000

Process Unit = 1200

Inventory Unit = 1000

Change = 200 Unit

Particular	Debit	Credit
Cost	10000	

All Material: Charges		10000
Purchased Cost	50000	 50000
Production Costing	49000	 49000
Incurred Wages	50000	 50000
Cash Depreciation	20000	 20000
Expenses (28000 + 11000) Cash	39000	 39000
Supply Inventory: (10000-2000)	2000	 8000