

Management Accounting
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Lecture 10: Preparation & Analysis of cost sheet-II

Welcome students, since the previous two classes we were learning about how to prepare the cost sheet or the statement of cost. Because this is the first statement in the management accounting because as I told you in the lectures in the beginning, in the first or second lecture that the management accounting itself is not an independent discipline, it depends upon the other two accounting branches, financial accounting and cost accounting, right?

So, now by using the different techniques of the financial accounting and the cost accounting, we will first generate some information and after generating that information we will analyze it and we will use that information for the decision making. Since, the management accounting we use the information generated by the financial accounting or with the help of financial accounting and cost accounting and whatever that information comes up we will have to use that for the decision making, right?

So, now we are different types of the information which can be generated, we are dealing with the statement of the cost or the cost sheet, right? In the previous class I discussed with you that how to prepare the cost sheet. First, we learned that first simple cost sheet is very simple that it is a statement of the cost, total cost of the product can be divided in to five different types of the cost or the four different types of the cost.

First component of the cost is the prime cost which includes the material cost, labor cost and the other direct overheads. Some total of this three becomes the prime cost. Prime cost means without this cost we cannot think of any production, right? Then there are some other overheads which we call them as the factory overheads, which have to be incurred at the level of the factory when the raw material moves to the factory, when the labor start working in the factory and when other factory requirement for the say, for example, if the factory building is on the rent then the factory rent is the factory cost, part of the factory cost not the part of prime cost.

Factory lighting, that is a part of the, there can be two kind of lighting, one is in the office lighting that will be the part of administrative overheads, that will be included into the cost of production. But here the factory cost will include the that part of light which is used, that part of the power which is used in the factory. So, there are so many overheads apart from the

direct material, wages and the other direct expenses, there are so many other overheads the sub overheads which are incurred at the level of the factory when the raw material is taken to the factory and we start the production process.

So, after prime cost we will add up the factory overheads, it will become the works cost, then in the works cost we will add up the production, we will have to calculate the production cost we will add up the say administrative overheads and after the cost of production we will add up the selling and distribution overheads so it will give us the cost of sales. So we will arrive at the cost of sale that is the final cost of the production.

And from the total sales value either its anticipated value, expected value or the actual value, from that sales value we will subtract the cost of production then the difference is called as the operating profit, right. The difference is called as the operating profit. That part of the profit is coming from the operations. There are the two kinds of the profits, one profit which we calculate in the profit and loss account or in the income statement.

One profit is which we calculate in the cost sheet. So, in the cost sheet the profit calculated is called as the operating profit, right. And then that information will be taken to the profit and loss account and apart from that information relating to operations if you add up the other information say interest incomes, if the firm has made the investment outside its firm.

In the market so they will get the interest incomes, some consultancy incomes, some other kind of indirect incomes will come to the firm and on the debit side of profit and loss account some indirect expenses will also be there. So, all those expenses which are not operating expenses, non-operating expenses, for example, salaries of the office employees. They will have to be added in the profit and loss account.

So, in the profit and loss account first we calculate the gross profit which is simply the sales minus the cost of production and then in the lower part by adding up the non-operating incomes and non-operating expenses, finally we calculate the net profit before tax and net profit after tax when we adjust for the tax, right? So that is the, that part is in the income statement.

In the income statement, in the profit and loss account we can calculate the net profit before tax, net profit after tax and when we calculate that net profit before tax and after tax that includes the operating profit also which is otherwise calculate in the cost sheet, right? So the first problem which we discussed in the last class it was a simple problem. right?

We had the information with the regard to the prime cost, factory cost, cost of production and the cost of sales. When we prepare the cost sheet and when we subtracted the cost of sales from the sales, we were left with the difference and that difference is called the operating profit. Then we did the second problem in the second problem, say this is the second problem here, what is the second problem? We have seen it and we have done it.

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Particulars	Dec.01, 2017 (Rs.)	Dec.31, 2017 (Rs.)
Cost of Raw materials	30,000	25,000
Cost of WIP	12,000	15,000
Cost of stock of finished goods	60,000	55,000
Transactions during the month:		
Purchases of Raw material	4,50,000	
Wages paid	2,30,000	
Factory overheads	92,000	
Administration overheads	30,000	
Selling and distribution overheads	20,000	
Sales	9,00,000	

Prepare:

(i) Cost sheet showing:
 - Materials consumed
 - Prime cost
 - Factory cost incurred and total factory cost; and

(ii) Income statement showing gross profit and net profit



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The following information has been obtained from the records of left center corporation for the period from December 1 to December 31 2017. So, we are given here two kinds of information, one is a general information that is the, for the transactions during the month of December and the upper part of information includes the stocks. So we will learn about how to treat the stocks.

In the first problem which we did we did not do any adjustment for the stocks, but the second problem which is this problem which I did in the last class here we learned that how to prepare a cost sheet, or the statement of cost by adjusting the three different types of the stocks, that is the stock of raw material, stock of WIP that is work in process and the stock of the finished goods.

So we learned about that and after adjusting the three different types of stocks we had to calculate the different cost, so you can calculate again the cost of raw material consumed after adjusting the stocks of raw materials opening and closing stock, then you can calculate the factory cost that is the total factory cost. After adjusting the stock of WIP opening as well as closing and then we will calculate the cost of production after adjusting the stock of finished goods, both opening as well as the closing stock, fine?

So we have done that in the last part, simply prepare the cost sheet, but see this cost sheet is different, this problem is different from the first problem, because in this problem we are asked two things, one thing is we are asked to prepare a cost sheet statement of the cost, and in the statement of the cost we will work out only the cost up to the factory cost or the works cost.

Beyond that cost of production, cost of sales and the operating profit has to be calculated in the income statement, we will have to prepare the separate income statement and remaining information we will have to take to the income statement and adjust it there and then prepare an income statement separate income statement or separate profit and loss account.

So now we will be learning in this class how to prepare the separate income statement or the profit and loss account by taking into account the factory cost which will come from the cost sheet and the further adjustment we will do about the administrative overheads and selling and distribution overheads and finally we will arrive at the net profit. Because profit calculated in the income statement is called as the net profit.

If the tax information is also given then we work out the net profit before tax and after that we treat the tax, adjust the text and we work out the final profit which is called as the net profit after tax, net operating profit after tax. You must have heard about which is very common term used NOPAT – Net Operating Profit After Tax. So, regarding tax no information is given to us here, we are only given the information over the sales and the cost of production, complete cost of production, including the information over the stocks.

So, now we will be after preparing the cost sheet first part and calculating the work cost, we will be now moving to prepare the second statement that is the income statement. Income statement or the profit and loss account. You must be knowing, I am sure that you must be knowing how to prepare the income statement or the profit and loss account. So you can prepare the income statement in two formats. One is the vertical format where in the upper part you put the sales and then you put the all the expenses you calculate the differences and that difference is the net operating profit before tax or after tax if the tax information is given.

Second format is the T format, in the T format you prepare the income statement by calculating two things, then we do not jump in to the direct directly to calculate the net profit. In the T format we prepare the two parts, this income statement is preparing two parts, first part is called as trading, account second part is called as a profit and loss account. And in


total this statement this statement is called as the income statement. One side is it has two sides, one side is called as the debit side another side is called as the credit side.

In the debit side we put all expenses and in the credit side we put all income coming from sales or any non-operating income and then finally we say balance both the sides and difference is called as the profit or loss. If the expense side debit side is bigger than the credit side, then that is called as the net loss and if the vice versa that if the credit side is bigger means the income side is bigger than the cost side debit side then the result is the net profit.

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*Income Statement of L.C. Corp.
for the Month of Dec., 2017*

<i>Particulars</i>	<i>Am't (Dr.)</i>	<i>Particulars</i>	<i>Am't (Cr.)</i>
<i>To fact cost</i>	<i>77,000</i>	<i>By Sales</i>	<i>9,00,000</i>
<i>Add O.S. of B.C.</i>	<i>60,000</i>		
	<i>83,000</i>		
<i>Less C.S. of B.C.</i>	<i>55,000</i>		
<i>T. G.P.</i>	<i>28,000</i>		<i>9,00,000</i>
	<i>1,21,000</i>		<i>1,21,000</i>
<i>To Ad. d/h.</i>	<i>30,000</i>	<i>By G.P.</i>	<i>1,21,000</i>
<i>To S. or Dist. d/h.</i>	<i>20,000</i>		
<i>To D/P.</i>	<i>71,000</i>		
	<i>1,21,000</i>		



So after preparing the cost sheet in the previous class now we will learn how to prepare the income statement separately and for preparing the income statement let us now follow the T format and learn how to prepare the income statement here. So, for calculating the or preparing the income statement here I will prepare a T format. So this is the T format and in this format we will have to put the things like this that is the income statement, we will write here what that is income statement, income statement of left center corporation for the month of, for the month of December, because this information belongs to December 2017.

These are the two parts, what we write here particulars, what we write here particulars, we write here amount and this side is called as debit side. Then again particulars and amount, this is called as credit side. Credit side means received side or income side, debit side means expense side or the payment side, so we will put respective items on both the sides and then we will find out the balance.

Now when we prepare the traditional income statement then we start the upper part from the upper part that is called as trading account. Because income account has two parts, upper part is called as trading account; lower part is called as the profit and loss account. So in the trading account we take in to account five items, on the credit side we take two items that is sales and closing stock and on the debit side we take three items that is the raw material cost, wages cost that is incurred at the factory, level production level and the other direct expenses.

So, we balance these five items and we see which side is bigger, net result is that the credit side is bigger than the debit side though the difference is called as gross profit and if the reverse happens that debit side is bigger than the credit side then we are in the state of gross loss. But in this case we have done half of the work in the cost sheet.

In the cost sheet we have calculated one cost by adjusting the opening stock of raw material, closing stock of raw material, calculating the cost of raw material consumed plus information about the factory wages, we have already calculated one cost that is called as the factory cost or the works cost. So that factory cost or works cost will directly be taken from the cost sheet to the income statement. And on the credit side we will put the information with regard to the sales.

So we start with the credit side because there is only one item and this is what this is called as sales, by sales and what is the information about sales, it is 9 lakhs. It is 9 lakhs and this side will be taking the two factory cost. Two factory cost. So, what is the factory cost in the cost sheet if you open up the cost sheet prepared in the last class you will find the item is 7,74,000.

Now, before taking this 7,74,000 to the outer column, we will have to adjust one more type of the stock that is called as the stock of finished goods. We have not adjusted this stock in the cost sheet, we adjusted in the cost the sheet the stock of raw material and the stock of WIP work in process. But the stock of finished goods has to be adjusted here for calculating the cost of production.

So in this 7,74,000 rupees this information I have brought from the cost sheet. We ended of the cost sheet by calculating this information, now that information is transferred to the income statement and now we will go for the treatment of the stocks. So, in this, what will you do, add opening stocks of finished goods and what is opening stocks of finished goods the amount given to us is 60000.

So, you add it up put it up in the inner column itself, it will not go to outer column so it works out as how much, 8,34,000. Now, less closing stock of closing stock of finished goods. So if you take the closing stock of finished goods how much this information this is 55,000. So after subtracting it what we are left with this the final information works out is how much that is 7,79,000.

This is your cost of production total cost of production whatever the production we have made so far in the month of December as well as what was the previous stock left in the warehouse, we produced in the month of December worth rupees 7,74,000 and 60,000 worth of the goods were already with us in the stock, total production became by the end of December 834000, when we subtracted the closing stock which we are not selling in the market in the current month that amount was 55000. So, finally the amount which will go to the market the cost of that amount is 7,79,000.

So, now on the one side we have put the sales on the other side we have put the cost, now let us see whether we are in the state of gross profit or we are in the state of gross loss. So, this is the 9,00,000 you close it and this is the, now we have to find out what this is called as GP, by gross profit and if you calculate the gross profit GP how much it is works out because this side is bigger so this side is 9,00,000.

You make it 9,00,00. Close it and the gross profit is how much this is 1,21,000, this is the gross profit but this is not the final profit. In this profit we will have to do some further more adjustments in the lower part, so this upper part which helps us to calculate the gross profit is called as the trading account, first part of income statement and the second part of the income statement is the profit and loss account.

So, now we will take this GP, now this GP is the income with the surplus and this surplus will become the credit balance. If you recall the income statement you will be understand it, so it will become now by gross profit and what is the gross profit, it is 1,21,000. It came here. Now, we will have to adjust the indirect overheads. So what are the indirect overheads to administrative overheads or administrative cost.


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Cost of WIP	12,000	15,000
Cost of stock of finished goods	60,000	55,000
Transactions during the month:		
Purchases of Raw material	4,50,000	
Wages paid	2,30,000	
Factory overheads	92,000	
Administration overheads	30,000	
Selling and distribution overheads	20,000	
Sales	9,00,000	

Prepare:

- Cost sheet showing:
 - Materials consumed
 - Prime cost
 - Factory cost incurred and total factory cost, and
- Income statement showing gross profit and net profit








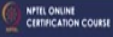
So, the administrative overheads given to us are, for example, you are given the administrative here 30,000 and selling the distribution overheads are given to us are 20,000.

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Income Statement of L.C. Corp. for the month of Dec., 2017

Particulars	Amt (Dr.)	Particulars	Amt (Cr.)
To fact cost	7,74,000	By Sales	9,00,000
Add O.S. of B.C.	60,000		
	8,34,000		
Less C. & A.P.	55,000		
To G.P.	7,79,000		9,00,000
	1,21,000		
	9,00,000		1,21,000
To Ad. oh.	30,000	By C.I.P.	
To S & Dist. oh.	20,000		
To O/P.	71,000		
	1,21,000		



So we will have to adjust them, these are the indirect overheads. We produce the production but now apart from the production unit we need the administrative office also, support of the administrative people their cost also has to be added and when this total production goes to the market we will have to incur some selling and distribution overheads so that will give us the total cost. So but these are called as the indirect cost. Administrative cost and selling and distribution cost, these costs are called as the indirect cost.

So, now we are adding the administrative overheads, so what is administrative overheads? 30,000. Take is directly here. This is 30,000 and then is the, to selling and distribution overheads, so selling and distribution overheads. How much is the selling and distribution overheads? We are given 20,000. So, this is the total amount, and this side nothing is there so what can you do now? You total it up, this works as 121000. Close it by two lines and what is the difference now this is called as to operating profit.

To operating profit this is the, how much is to operating profit this is 71,000 and both the sides are now equal this is called as 1,21,000. So, in the cost sheet in this problem we did two things, one thing is that preparing the cost sheet but not complete. Part of the information was found out by preparing the cost sheet and part of the information was found out by preparing the income statement, first is the gross profit which is in the trading account and lower part is the net profit which is from the profit and loss account.

So, we have found out, so in the first problem we calculated the operating profit itself in the cost of statement or statement of the cost. There is no problem, we can do that, but in this it was asked that part of the cost will worked out in the cost sheet and then remaining cost will be taken to the income statement and the operating profit we will have to work out in the income statement.

So we prepared both the statement and we know now that this cost sheet is ready with us, this income is ready with us, this cost sheet is ready with us. so this is one part of the statement of the cost after treating the stock of the raw material, how to prepare the cost sheet, we have learned that, so first we learned the simple cost sheet, then we learned the cost sheet or the statement of the cost we are adjusting three types of stocks.

And the third thing we learned till now is that when entire information has not to be worked out in the cost sheet part of the information will be created in the cost sheet and part of the information will be created in the income statement so if that kind of the things are asked in the question or we have to do it, so it means partly you prepared the income cost statement leave it at the point where it is asked up to that is in this case and then remaining part you take to the income statement.

So, I think you must be clear by now with the concept of the statement of the cost or the cost sheet. As, I told you that this is the most confidential statement for the companies, for the manufacturing organizations because cost, reducing the cost of production is a secret for the companies. Lower the cost of production and higher the selling price, the margin will be

bigger because the companies have no liability in today's competitive scenario to decide the selling price.

Market forces decide the selling price, if increase the selling price beyond the limit people may reject the product. So you have to fix up the selling price somewhere between the range within the range given by the other players in the market because you say competitive market. So, if you want to maximize your profits you will have to look at the cost part and how to innovatively reduce the cost of production that is done by preparing the cost sheet that is why we divide the total cost of production into four cost.

We calculate the prime cost, we calculate the factory cost, we calculate the cost of production and we calculate the cost of sales. So, first part in the management accounting is generation of the information and that is what we are doing here and after that we will be, on the basis of this generated information we will present it to the decision makers in the firm, they will look at the different components of this cost and then they will try to find out which part of the cost is on the higher side and which can be controlled.

Again while making the use of this information for decision making again the basis of the decision making will be the cost and benefit analysis. If we reduce the cost, how much benefit we are going to have out of that reduced cost and how to take care of that. So, this is the second problem we did there we prepared half cost sheet in the cost sheet and the remaining information was taken to the income statement to the profit and loss account. Now we will do one more problem.


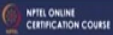
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Prepare:

- Cost sheet showing:
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- Income statement showing gross profit and net profit

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And that one more problem will be that I will add up little more wrinkle into that and there sometimes we will have to calculate the per unit cost also. We have not to calculate the total cost, we will have to calculate the per unit cost also. Per unit cost of for that production which will go to the market. So, on the one side you will calculate the total cost from the cost sheet and then you will calculate the per unit cost also because number of units information is also given to us, so you can calculate the cost total cost for unit, you can calculate the total selling value and then the profit per unit which can be calculated.

So, we learned till now that is the two types of cost sheets. One is simple another one is after treating the different type of stocks, and then preparing the income statement separately. Now, in the next part we will be learning about one more thing that is if the units information is also given, in this, these two problems we were given only the cost related information and income related information, income was coming from sales, and then the cost was coming from the different input of the cost and the balance we calculated was an operating profit.

In the first problem we calculated the operating profit in the cost sheet and now second problem we calculated the operating profit in the income statement. Third thing can be that we can prepare one more statement cost statement where we will have to make one more column where the information about the units produced and sold is also given. If that information is given about the units produced and sold, then how to treat that. What we can do there is we can even calculate the per unit cost.

We can calculate even the per unit cost, we will put in the one column the total number of units, total number of units which are produced in the current period. And, then the total number of units which are shifted from the previous period to the current period. So total production we will get in the terms of the units and in the terms of cost of production, from that how much is kept as a closing stock those units will be subtracted so whatever the number of units are left with us, they are available for the sales for the current period and the cost of production is also available with us.

So, since we have the total cost available is the cost of sales and number of units so you can easily find out the per unit cost, per unit sales value and the per unit profits. So, in the next class I will be discussing with you one more problem and that problem will be how to deal with, that will be a complete cost sheet, where we will start from raw material, we will calculate the prime cost then we will end up by say calculating the cost of sales, by taking

into account per unit cost, the total cost of production and calculating the per unit operating profit.

So we will do that third problem, after that we will close the discussion on the cost sheet and then we will move to the next parts that is the budgets and the budgetary control. So, the third problem with the regard to the statement of the cost I will discuss in the next class along with how to analyze the cost sheet and use that information generated in the cost sheet for the management decision making.

Again I repeat that the cost sheet we are preparing that is the part of cost accounting. The income statement which we are prepared in the second problem that was the profit and loss account and that is the financial accounting. So, financial accounting and cost accounting, they help us to generate different kind of information and that information can be suitably used for the management decision making that is why it is called as the management accounting.

How efficiently the information generated with the help of financial accounting and with the help of cost accounting, so one part is generating the information. Till now we are learning about by preparing the cost sheet that how to generate the cost related information, how to generate the operating profit related information and then second part would be the analyzing that information and using that for the management decision making.

Because largely the purpose of preparing the cost sheet is controlling the cost that is why we do not jump to calculation of the total cost in one go, we divide the cost into different types of the sub cost that is of four types of the cost. Prime cost, factory cost, cost of production and cost of sales. So why we sub divide that into four, parts because ultimate purpose is cost control.

Again I repeat that in today's competitive scenario if you want to maximize the profits of the company or you want to keep the profit of the company intact so what you will have to do, in that case you will have to reduce the cost only. You cannot increase the selling price, the moment you increase the selling price your sales start falling down, because people have number of alternative now, they are not only means required to wait for one company and their products only and be dependent on that company number of companies are manufacturing the similar kind of the products and generating similar kind of the services.

So, it means if the price of one product goes up, one company's product goes up, its substitute is available in the market. And if the other company does not jack up the price so it means the company who increases the selling price their sales are bound to dip. So cost sheet helps us in controlling the cost of production, in reducing the cost of production.

So only prepare the third cost sheet third problem we will do and then after that we will learn about how to analyze the cost sheet and how to arrive at the important decision making which is the subject matter of the management accounting. So third problem I will do in the next class. Thank you very much.