Management Accounting
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Lec_09
Preparation & Analysis of Cost Sheet - I

Welcome students, so in the previous class we learned about how to prepare the cost sheet and how to calculate the different sub cost and finally arrived at the total cost of production and operating profit. Now preparation of the cost sheet is one thing, but analysing the cost sheet is another thing. Preparation of the cost sheet it is the part of cost accounting, but analysing the cost sheet and drawing the relevant information, useful information and using it in decision-making is the part of the Management Accounting.

So, cost accounting and management accounting and in some cases even the financial accounting goes hand-in-hand. All these three different types of accounting systems or say types of accountings they go hand-in-hand, so sometime we will be taking the help of financial accountings, sometime we taking the help of cost accounting, sometime we taking the help of both financial and cost accounting and finally say arriving at some relevant decisions on the basis of information which is generated by the financial accounting and cost accounting and then we are say depending upon this information and taking the final decision in the business.

Now, for example, when we prepare this cost sheet here we did not jump to the total cost directly rather, it is divided into the four cost, one was the prime cost, factory cost, cost of production and cost of sales, now why we bifurcated this costing into the four subcomponents, purpose is cost controlling right, now we will have to analyze it, that is our cost is going beyond the control.

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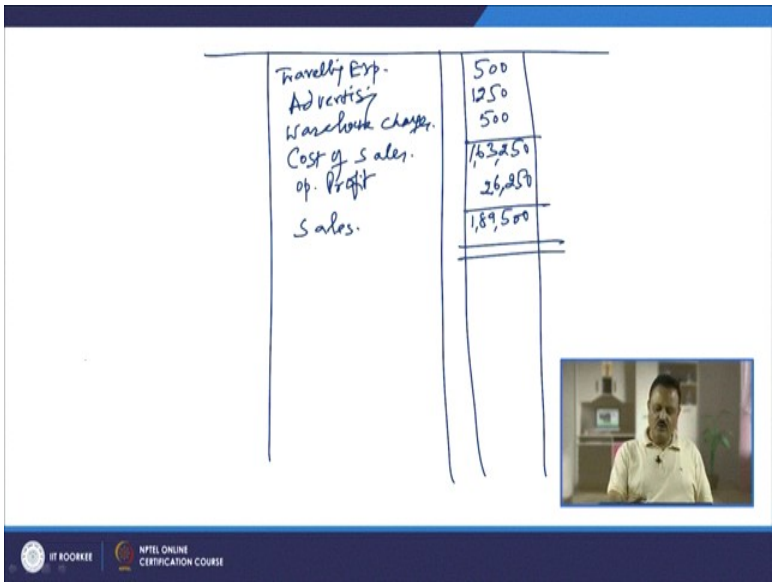

Like see, for example, you look at here that we have calculated operating profit, this is 26,250, looking at the total sales value of 1,89,500 rupees. Now, we will have to think about that whether we are satisfied with this operating profit or our profit is lesser than the other players in the market and we have to increase the profit, we have to enhance the profit and we have to then do some, something which is helping us to reduce the costs, increase the profits.

So, if we want to increase the profit you cannot touch the selling price because it is not determined by the firm, it is determined by the market or the market forces, so it is beyond control, now we will have to match the sales value or the selling price and if you want to maximize the profit you have to reduce the cost.

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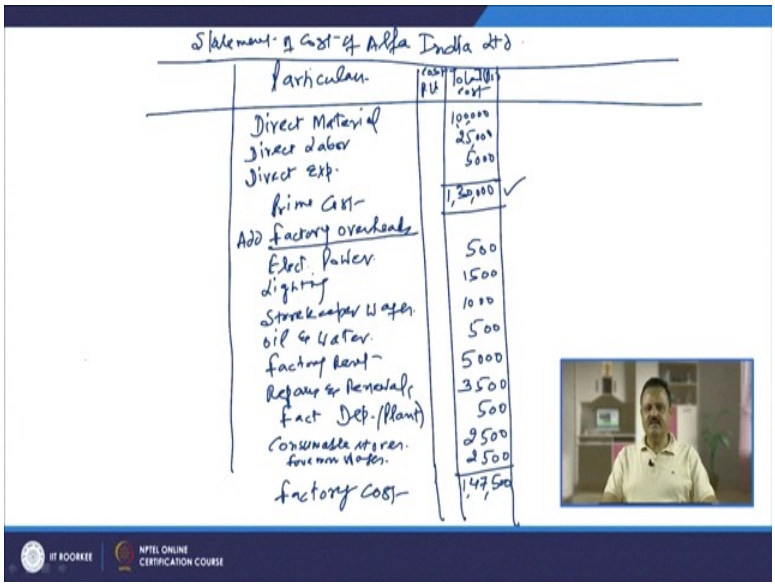

Now, how to reduce the cost we have to now look at the different components, as I told you the success mantra or the decision-making rule in the management accounting we follow is the cost and benefit, always will look at the cost of making a decision and the benefit available or expected to be there after implementing that decision. So, if the cost is lesser than the benefit then we will adopt the option.

But if the cost is more than the or there is a minimal reduction in the cost then we will not take that decision because benefit is not going to be the one or the amount which is going to be acceptable to us. Now, let us understand and say assume that we want to reduce the cost, because the profit 26,000, we are not satisfied with this, we want to increase the profit, so what you have to do here is, you have to reduce the cost.

Now because we have the different components if you look at the four sub-cost here, biggest cost, the largest components of the cost in this four sub components is the prime cost, next is the factory cost, then, is the cost of production and the, finally, the cost of sales, so it means as I told you cost and benefit analyses, they should hit upon that particular problem whereby putting in some efforts we get the maximum benefit.

So, for example, you are given here the say, one item, for example, store keeper wages, we have a store keeper who takes the wages of Rs. 1000 per month and we want to replace him with another store keeper, we assume that he say is charging too much, we have to have

another guy, who may be agreeing on the wages which is lesser than Rs. 1000. So, how much maximum reduction you can achieve.

Maximum 900, somebody will, another guy will come or agree for Rs. 900 or maybe the lowest, maybe somebody very for Rs. 800, so how much we saved only Rs. 200, 100 or Rs. 200 and for that we have to look for the person, we have to convinced him, we have to train him, we have to say incur some other expenses, hiring cost, training cost, retaining cost, so many other cost are there, but the saving is just Rs. 200, so we will not go for that kind of the process.

If you look at the prime cost this is the biggest, largest components of the total cost and in this prime cost also we have the three cost, one cost is direct material, then, is the direct labour and then is the direct expenses, largest component in the prime cost is again the direct material, so we should look upon the direct material cost because it is the biggest component, it is the biggest components.

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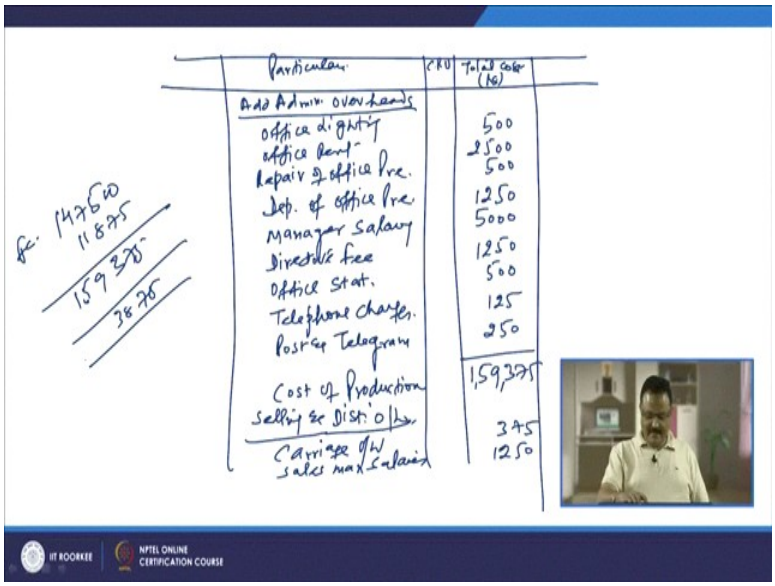

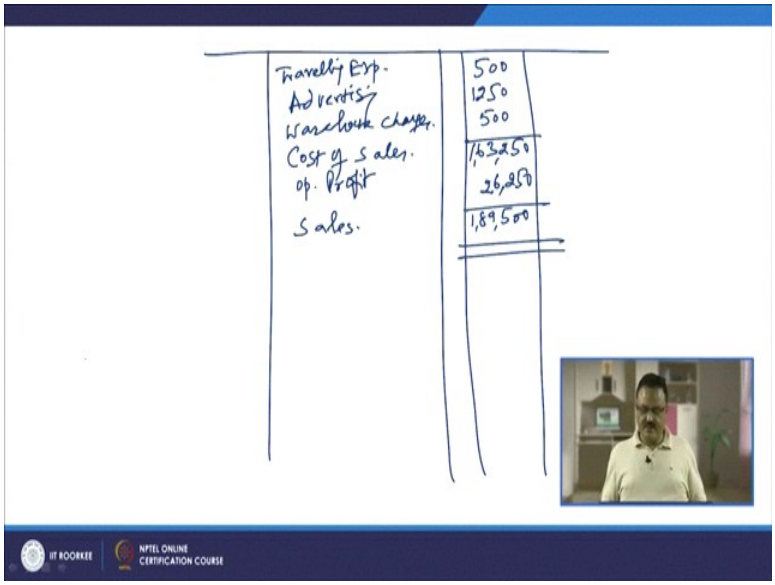

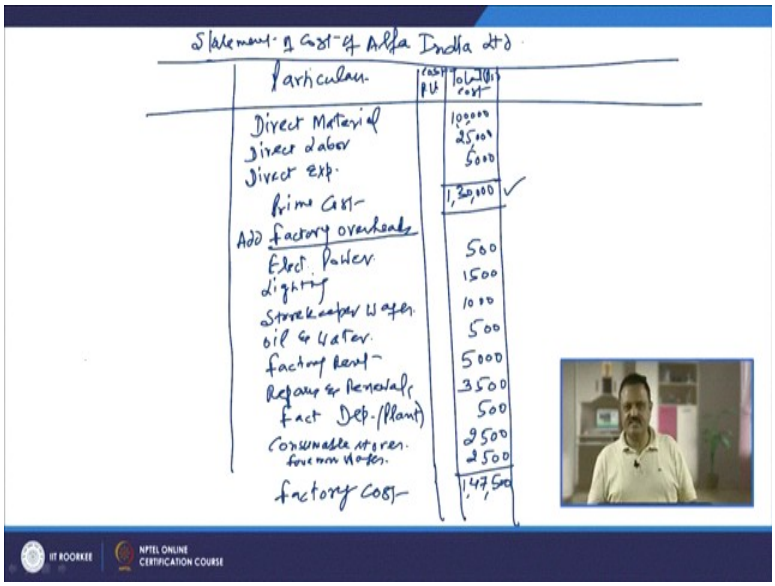

So, because what is a cost? If you see the total cost here, the total cost here we have calculated is the say 1,63,250 and out of this 1,63,250, one lakh is just the material cost, so we will start from here, if the cost reduction has to be achieved we have to start from here, look at the material cost and think about that if our material cost is hundred thousand rupees, how much is the material cost of our competitors, will try to find out that information from their cost sheet, though it is are available easily.

But still we will have to make efforts and try to find out it or even we are not worried about our competitors, we ourselves feel that our material cost is very high, we should think of reducing it and if we thing about that even we achieve a 10 percent reduction the cost of material, 10 percent reduction in the cost of the material, so it means we will be saving how much Rs. 10,000 and it is a acceptable, sizeable amount.

If you make some efforts we can save 10 percent cost of the material, we can save Rs. 10,000 if we increase it to the 15 percent, we save Rs. 15,000 and somehow if we are able to reduce the material cause by 1 5th or maybe 20 percent, then your material cost will be coming down by Rs. 20,000 and we are able to achieve this reduction in the cost of material by Rs. 20,000 that almost our operating profit will become double.

So, we should always focus upon the largest component and largest component we saw here is the prime cost and in the prime cost itself, it is a material cost and controlling the material cost is within our hands that we can do, if we look for better suppliers, if we look for the suppliers in the say maybe not in India but in the other countries, I think we can achieve this target.

As, I am telling you these days government has introduced, in a manufacturing sectors specially, government had introduced one clause and that clause is called as the clause of global sourcing. Government says that you manufacture the best product and at the minimum possible cost and for the reduction of the cost, you should make use of the global sourcing.

Global sourcing is like that, whatever the raw material we require to manufacture the product, if we are manufacturing, the finished product if we are manufacturing look for the raw material for that product, which is the best quality and lowest in the price and if that material is not available within the country than even you may go out of the country, import it, and then bring it, so that you can save up on the cost, you can get the best quality of the material and then sometimes say you can produce the best product.

For example, now the companies, I take the example of a simple product like potato chips, we purchase potato chips from the market, many companies are manufacturing it, Pepsi is manufacturing and sometimes other companies are also manufacturing, now Indian companies Haldirams and others have also started manufacturing the potato chips and potato chips main raw material is the potato.

When you talk about the potato, for potato, manufacturing the potato chips of the qualities of this multinationals, the chips they are manufacturing for us, they do not compromise with the quality of the potato, so initially when the good-quality potato was not available in India they were even importing it from other countries to manufacture the best product, now they have started say, helping the farmers, guiding the farmers, training the farmers that how to grow the best quality of the potatoes.

For example, you talk about the McDonald's, McDonald's sells one important product, one good product that is the french fries and you might have seen the size of the french fries sometimes that is a very long and you can see that it comes out of the potato, so you can see the size of the potato also, sometimes the this quality of the potato is not available in India, they imported from the other countries and if they have to buy it in India, they buy it from the best of the sources so that the good-quality material is purchased and since they purchase in bulk, so automatically the cost comes down.

So, global sourcing is very important component, when we have to say, produce the finished product in bulk, then certainly we should look for the best quality of the material and try to minimize the cost of production. Similarly, the companies for example, who are depending upon the agriculture material as their input, means they are manufacturing the products which is based upon the agriculture materials, for example, you talk about the ITC, Indian Tobacco Company which is manufacturing many consumer products, you talk about the wheat flour, they are manufacturing wheat flour Ashirwad, the brand owned by the company is a wheat flour.

Patanjali is again manufacturing the wheat flour, so in many the companies are manufacturing the wheat flour, it is a agriculture, say product, base product, so to reduce the cost of production these companies buy the wheat during the season, when there is a harvest season, they buy it from the farmers directly, they buy it in the bulk, so they are able to buy the best quality of the wheat at the cheapest prices and finally, they are convert that into the very good-quality product and at a very, so you can call it as acceptive, I want a quality as a competitive, but that acceptable price to the consumers.

So, for example we talk about mustard oil, mustard oil is such a product establishing the project of the mustard oil is sometimes seems to be very easy, but say making it cost-effective is very difficult because say the cost of the mustard seeds plus the processing cost is, if you add up the total cost and then you try to find out the cost of the per kg of the same mustard oil in the market, so total cost or the selling price minus total cost, sometime the firms ends up making losses, so if you have to really come out of the profit, means earn the profit in the mustard oil process or by manufacturing the mustard oil, one thing you to do is that we have to buy the mustard seeds during the season and that too in the bulk.

If we are buying during the season and that too in bulk, certainly the mustard if it is normally available Rs. 30 per kg, during the season it will be available at the half of the price and if you buy directly from the farmers, certain we are going to save up on the large cost, so this way multinationals are saving a single penny even sometimes and that say translates into the bigger saving, larger saving and finally that profit add up to the profit to the millions of the rupees.

So, always think upon the biggest components of the cost and try to reduce it and if you are able to, if you succeed by even reducing the cost by 10 percent, then you can see that we are saving the major junk of the cost, so what material is the one we have to take into account here, second is a direct labour, normally the labour rates are governed by the market, labour rates are governed by the market not by the hirer who wants to hire the labour, so whatever the market rates are decided we have to pay that rate.

But sometimes what happens that in some markets the labour available is in, so you can call it as the labour is in abundance, labour is in abundance, so it means if the local labour is not available and if it is available at a very high price, we can think of even importing the labour, we can bring in India, in any part we are manufacturing the product and using the labour may be skilled or unskilled and if the local labour is asking for the very high price, we can think of, say, bringing the people from other states where it is in surplus and if you bring them, even if you pay the, say, there, lodging and boarding cost even then it will comes down seriously.

So, we can think about whether we can reduce the labour cost because it is the second-highest component in this information and even the labour also, if you save even the 10 percent of the cost, you are going to save Rs. 2500, other components are not very large, say other overheads are 5000, are direct expenses, then if you see factory rent is Rs. 5000, so factory rent say reducing it from Rs. 5000 is not possible for us and we should spend time on this, we should not waste time on this.

Manager salary, manager is a permanent employee, you cannot reduced from 5000 to Rs. 4000, that is not possible, so in this information if you analyse the whole information, you can find out that reducing any cost on any other head is not possible, we should only focus upon the largest components, so that by making the minimum efforts we can have the

maximum benefits, we can have maximum savings and the total cost of production comes down, say to a significant extent.

So you see that when you have prepared the cost sheet this way, we prepare the prime cost and finally we prepare the cost of sales, so we have got the figure. So we have got the figure 163,250 and now we have found out that in this 163,000 the larger chunk of the cost is the prime cost, which is I think more than 80 percent, which is Rs. 130,000, so if any control of the cost has to be attained to be exercised then we should hit upon the prime cost because other components of the cost have no scope.

Means in the factory cost also or in the factory overheads also, there is no scope, in the cost of production also, in the administrative overheads there is no scope, in the selling and distribution overheads, we are paying the minimum cost and there is also no scope. So, this is the one important purpose for preparing the cost sheet or the statement of the cost this way that, we have to know the different components.

For example, if you are not preparing the cost sheet, in this way and you are not knowing what is your prime cost, what is your factory cost, what is your administrative cost and what is the cost of sales, then how to exercise the control, you will be able to know it, which component is contributing maximum to the cost, so this way we are knowing about that which components of the cost is contributing maximum.

How to control it and how to bring the cost down so that the gap between the cost and the selling price may be maximized and your operating profit comes out to be maximum, right. So, this is simple cost sheet and the say the process of analysing the cost sheet, simply the principle of the cost and benefits analysis that always hit upon that component of the cost, which is largest, which is maximum and sale, even 5, 10 or 20 percent or 15, 20 percent, then we can say finally in the absolute values we save the maximum amount.

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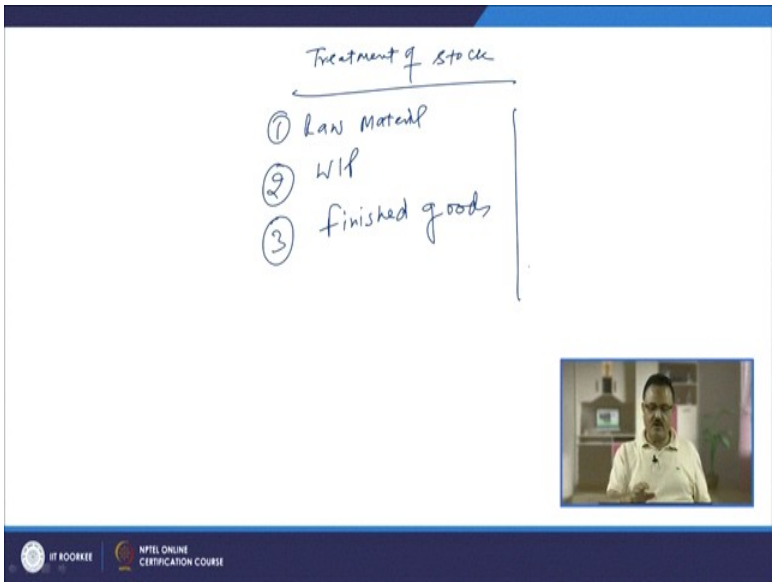

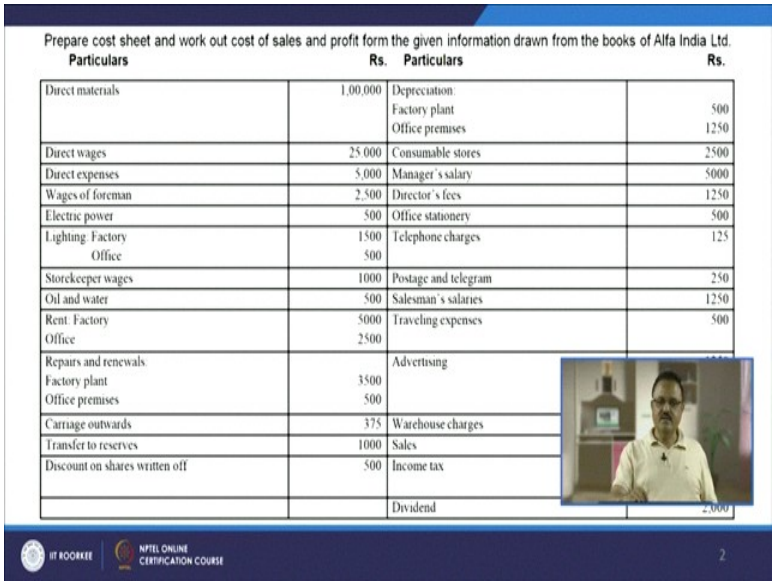

Now, we go to the next part in the cost sheet and the next part in the cost sheet is, say going to the next step of learning about cost sheet and making some adjustment and the one important adjustment in the cost sheet is the treatment of stock, treatment of the stock. We have not done any treatment of the stock in the first problem, it was very simple problems, straight problem, no wrinkles, no twist and turns, nothing, information was simple only we had to say drop some information, but other information was direct.

Here, now we have to do some adjustments for the stock or treatment of the stock. Now the treatment of the stock is means how we have to do it with? So that first of all, we must be knowing what are the different types of the stocks? First stock is the raw materials, stock of

raw material, stock from material this is one, second is the stock of WIP, work in process and third stock is that is the stock of finished goods, stock of finished goods, these are the three stocks right.

So as we arrived at the total cost of the material, because it was even in the first problem to us, so in that case there is no problem for us, it means because it was given to us direct material is Rs. 100,000, 1 lakh rupees, so we have to not to calculate it, but it was directly given to us, no adjacent of the stock was required to be done, but in the normal circumstances, it does not happen.

You have to treat the stock, you have to adjust the stock, because you are given the different figures of the stocks, you are given the different figures of the stocks, you have the opening stock information, you have the closing stock information, you have the purchases information, you have the information with regard to the, say carriage on the purchases, so you have to make some adjustments and after making these adjustments you will have to arrive at one figure and that figure is called as the figure of raw material consumed.

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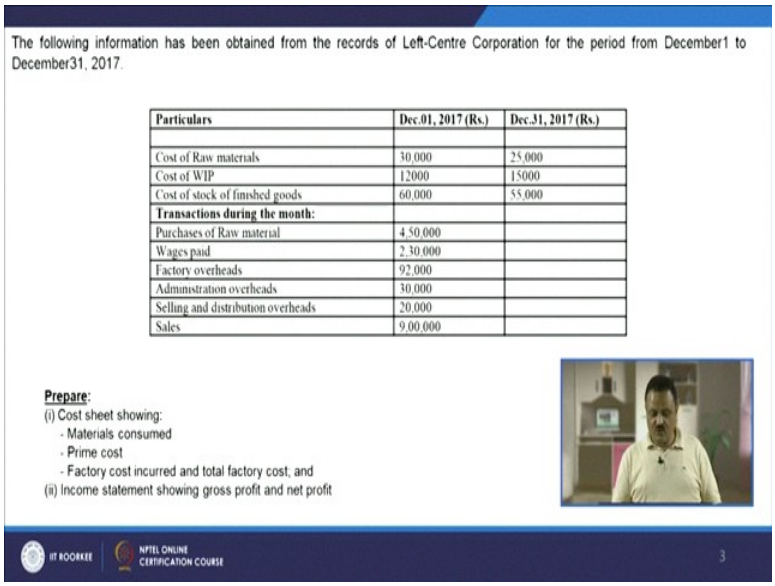

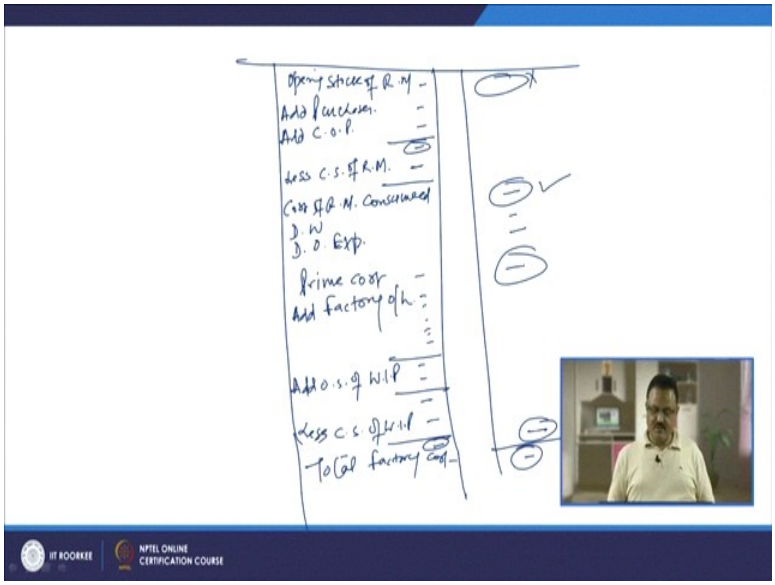

So, calculating the raw material consumed is not very easy, we will have to find it out. Now how to find it out? Or how to go for the treatment of the stock that is the point we have going to learn here. So again, for example, we are preparing the cost sheet, I am quickly preparing the proforma, this is the proforma of the cost sheet right, now we are preparing the normal cost sheet as we have done in the first problem, so, but we have to find out here is that is the cost of raw material consumed.

Now, for example, if I show you this problem, in this problem cost of raw material consumed is not directly given to us, you are given two, three types of information, one information is cost of raw material, you have the opening stock, you have the closing stock, and then is the, you have the say one more information something like that purchases of raw material, so minimum three informations are there and we have to take these three informations into account, so it is called as the treatment of the stock and we must treat the stock properly, so that we can calculate the cost of raw material consumed right.

So for calculating the cost of raw material consumed what we have to do is? You have to start here with say opening stock of raw material, opening stock of raw material right here, put it in the inner column, this column is called as, when you are at it from the sale left inside of this line, that is called as the opening stock of raw material, do not take it to this column directly right, put it in the inner column, then you write ‘add purchases’ right, add purchases and if you are given the information about the carriage on purchases, then you write here add carriage on purchases COP, put all this things and add them together, put a line here and then you will get one figure here.

Okay, totally it up, that is the opening stock of raw material, purchases and the cost of purchases and then you do here is, that is less closing stock, CS I am writing here, closing stock of raw material, RM, closing stock of raw material right, so you take the closing stock of raw material subtract it and finally you will arrive at one figure and their figure is called as the, you do not write the total here, straightaway you take the total here and that measure that their figure will become as cost of, this is the raw material less, closing stock of raw material and finally, when you arrive at this figure here, you right here cost of raw material consumed, cost of raw material consumed.

So, do not write this total here, take the total in the outer column here right, so we have to not write this, we have to do, like this, so put everything in the inner column opening stock of raw material, add purchases, add cost of purchases sorry, carriage on purchases, so total it up, this three things total up, less closing stock of raw material and finally, you come out with the information that is called as cost of raw material consumed, so this is how we treat the raw material stock or the stock of the raw material or say treatment of the stock that is the stock of raw material right.

And in this, then we will add up what? We will add up the direct wages, then we will add up the direct other expenses, other expenses right and finally you will arrive at something like at, which is called as prime cost, this cost will be called as prime cost, so here you are at the prime cost, once you calculated the prime cost, then you proceed further for calculating the factory cost, and like as we have done in the previous statement add up the factory overheads or the, sometimes it is written as works overheads, factory overheads or the works overheads.

So you add up like normally 1, 2, 3, 4, 5 like this put all these overheads in the inner column, put all these overheads in the inner column do not take them to the outer column, may call calculations in the inner column, only one figure will go to the outer column, never one it will go to the say raw material consumed, it will come here and then the direct wages information will be here, direct wages information, it will not be here, for example, sorry, it will not be here it will directly to go to the outer column.

So, it will go to the outer column here, this is the direct wages, this is the other and finally, this will become the, so whatever the raw material related cost and the items that they will be in the inner column because we have to treat the stock, adjust the stock for calculation, calculation of the cost of raw material consumed, you have to put the items related to raw

material in the inner column and only one figure will come out as the cost of raw material consumed, then direct wages independent, no treatment, no adjustment, direct overheads, no treatment, no adjustments and finally in the outer column we have the prime cost.

So we are again having the three figures or four figures in the outer column, one is cost of raw material consumed, direct wages, direct other expenses and finally the prime cost. Now in this go ahead after calculating the prime cost at the factory overheads and normally as we have done in the previous problem, you add up the factory overheads and total it up in the inner column, do not writing the outer column anything and then add here, whatever the total comes here you write here add opening stock of WIP, WIP means work in process, add it up here, put a line here.

Show the total amount here and right less closing stock of WIP right, subtract it, put a line here and now what it becomes, that is the total factory or works cost, this is a total factory or the works cost, you can calculate this cost as total factory or the, this is the total factory cost and only again one figure will come here, that is the total factory cost, so in this case what is happening? Total factory cost will become like this that less the raw material say consumed, so it means the total factory overheads are this, so we are taking this figure, only one figure, but it comes out here, will be putting this figure here and finally adding it up here, so it will become the total factory cost.

So, we have calculated the prime cost here it is there, then we added of the factory overheads in the inner column, then totalled up the factory overheads, added thing stock a work in process, then again, totalling it up, subtotal, then less closing stock of WIP, putting the item here, but finally, after subtracting the closing stock, you will not put the figure in the inner column, that final figure come in the outer column here, so how many figures you have now, one is the material, this is a labour, this is the other overheads, this is the prime cost and now this is the next item that is a factory cost, or the total factory cost right, so this is the treatment of the WIP or the treatment of the work in process.

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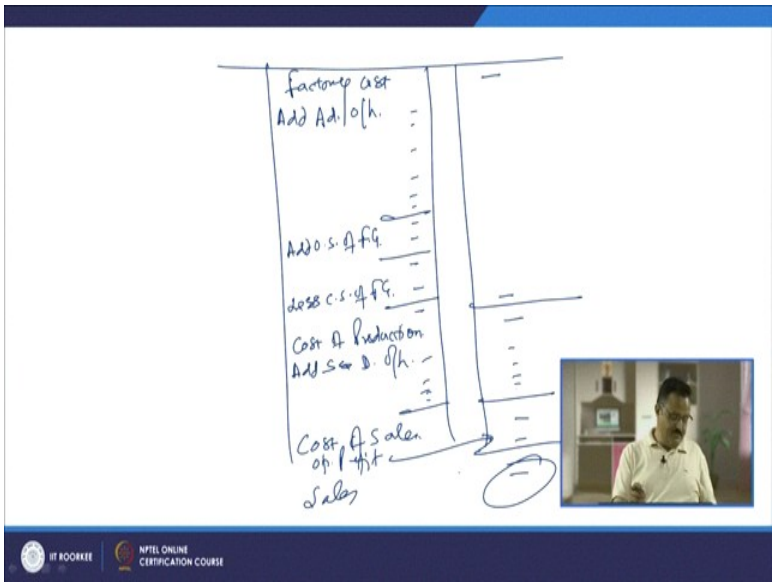

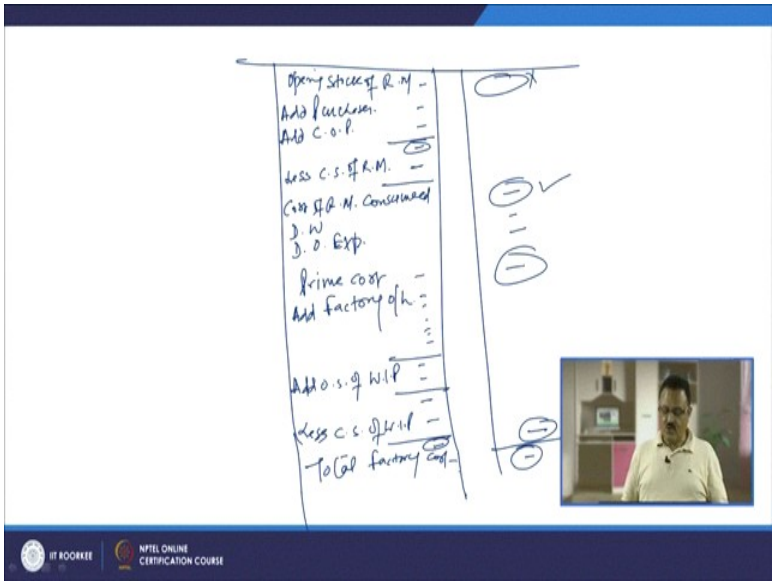

And now when you move to the treatment of the finished goods, again you have to go ahead like this, and here you have to write is, once you calculated the factory cost, once you have calculated the factory cost, it is already there in the outer column say, then add administrative overheads, administrative overheads and again put all the administrative overheads in the inner column and then you put a line here and then you say, you call it as total it up here, then add opening stock of finished goods, I am writing here FG, finished goods, put it here, put a line here and then something some total will come out, do not write anything here, only total, then less closing stock of finished goods, put here, put a line here and finally, when you total it up, it will come here, that will figure will come, total figure will come here and then you

will put a line here and it will become as a cost of production, this is the cost of production, it is the one more figure.

Then you go ahead, so it means then you go ahead and add here, that is the add selling and distribution overheads right, you put all the selling and distribution overheads and put this figure here or because these are independent items, so we can take them directly in the outer column, put here and this total will become the cost of sales, this will become as a cost of sales right, so this is and then you have the say finally the sales figure sorry, sales figure, so you have the sales, this figure is given here and the differences the operating profit, this is the operating profit right.

So the differences the operating profit, which will be here, so it is the sales, total cost plus operating profit, this is the total sales figure, this is the total sales value right, so this way we have to treat the stock. So, like the previous problem, you are not readily given the cost of raw material consumed, you are not giving the, say cost of, say, you can call it as a factory cost and you are not directly given the or you cannot direct you calculate the cost of production until and unless you trade the different types of the stocks, three stocks here stock of raw material which will be treated in the prime cost, stock of WIP that will be treated in the factory cost and the stock of finished goods, opening as well as closing that will be treated in the, for calculating the cost of production.

So once the cost of production is available with us, adding into their selling and distribution overheads, that finally you will arrive at the cost of sales and then adding into that the margin we want to earn, the profit, the operating profit, we want to earn, this total cost of sales and the, say that operating profit, total of these two things will give us the total sales value, so sales information or the selling price, we will take from the market, cost of production we will calculate ourselves and difference between these two can automatically be calculated, so this is how to prepare the cost sheet by treating the stock.

Now, let us prepare the cost sheet from the information which is given in the next problem right. So, here you are given the problem, like you are given the cost of raw material, WIP, cost of finished goods and then you are given some other information here and you are asked finally prepare, cost sheet showing material consumed, prime cost, factory cost incurred and total factory cost and finally prepare the income statement, it means the profit and loss account showing gross profit and net profit right.

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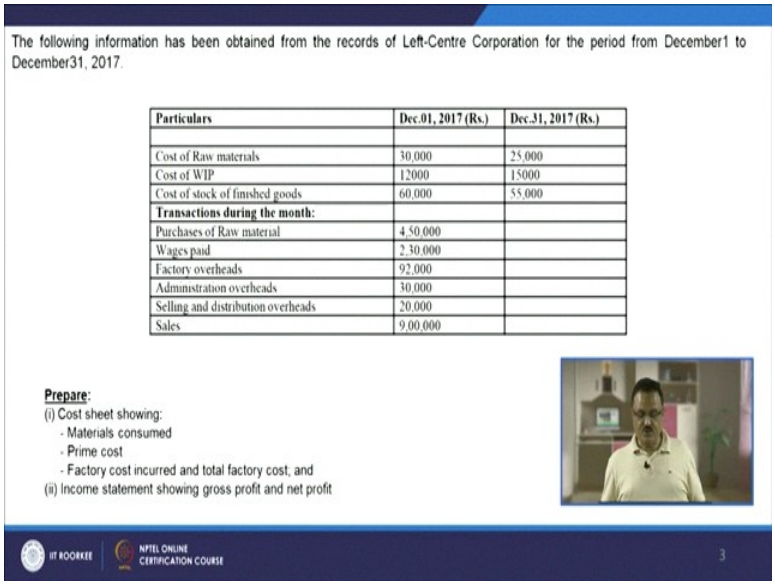

So, now quickly let us prepare the cost sheet for this problem and if you prepare the cost sheet for this problem there again the same process, same statement, simple statement, but after treating the stocks right, after treating the stocks here, so what is the problem given to us? Here, the problem is the following information has been obtained from the record centre, sorry records of the left-centre Corporation for the period from December 1 to December 31, this only for one month 2017.

You are given the information about the opening stock, closing stock and the other particulars right, so now if you take this information into account. Then you have to take here, what you have to take here is? There is a cost of raw material after adjusting the, say, your raw material, then WIP, then cost of finished goods, say, all the three stocks and adding up the further information, you will arrive at the total cost of production right.

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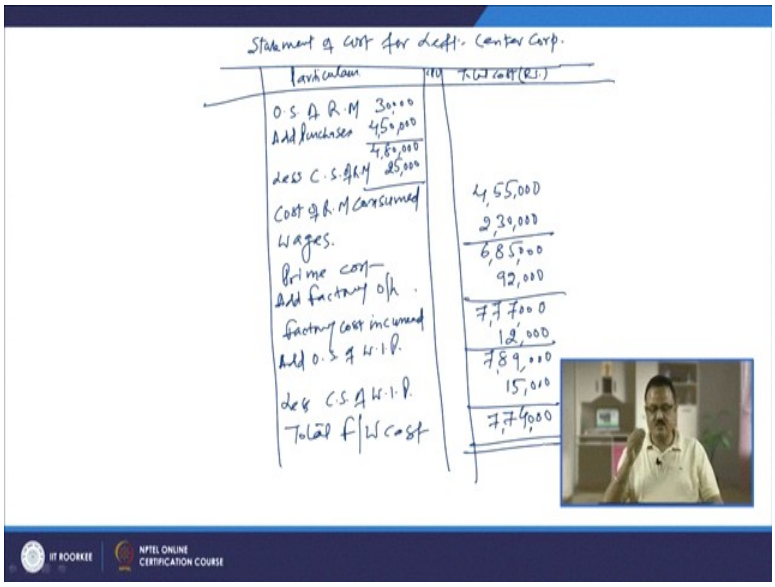

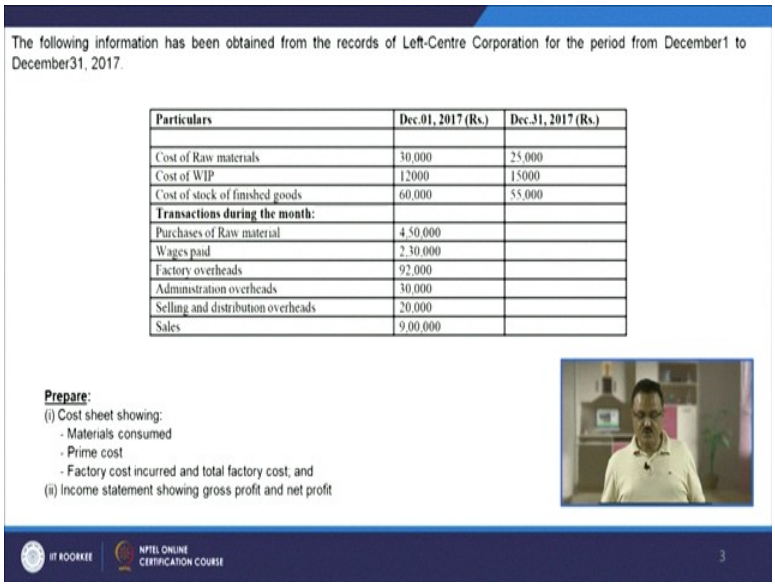

So we are talking about repairing the cost sheet or statement of cost, statement of cost for left-centre Corporation right, so again we are having the same format, it is again particulars, then we are having the cost per unit, CPU and then we are having the total cost rupees, total cost in rupees right, so this is the format and now we will have to start, say, preparing it. So, first of all, you take it as the opening stock of raw material and how much is opening stock of raw material given to you is? You can find out from this information is, 30,000 is the opening stock, put it in the inner column.

Then, is the add purchases, which is how much? Purchase figure is how much? This is Rs. 450,000, this is something like this and how much it is, this works out as Rs. 480,000, and then it is less, closing stock of raw material, how much is the closing stock of raw material is just Rs. 25,000, so finally what you have calculated is? Cost of raw material consumed and how much is the cost of raw material consumed? This is 455,000 costs of raw material consumed 455,000 clear.

Now, you add up in this wages cost or what is the next head of the cost? Which was given to us is? That is the wages paid, so add wages, how much are wages here? Wages cost given to us is, that is the say 230,000 I guess, wages is Rs. 230,000, and anything else we have after the wages, anything else for this wages, factory overheads, factory overheads will go in the factory, so I think for calculating the prime cost this is the only information available and if you take this information into account, so what will be called it as? It is called as prime cost and how much is the prime cost? It is 0, 0, 0, 5, then it is 8 and then it is 685,000, prime cost is 685,000.

Then we are given straightway the factory overheads, add factory overheads, now if you take the factory overheads into account, how much is the factory overheads are here? Factory overheads are only 92,000, so directly put it here, we are not given small, small figures, we are given only one figure that is factory overheads 92,000 right and then is the total it up, it is called as factory cost incurred, this is called as factory cost incurred, incurred means factory cost, which is incurred in the current period that you have to take into account.

So, factory cost incurred in this case is how much? This is 0, 0, 0, this is 7, this is 7 and this is 7, so it is 7,77,000, so it means we have calculated the factory cost incurred means that cost of the factory, which is incurred in the present month, now in this, for calculating the total factory cost, you have to treat the stock of the, say WIP, now what we have to do is? Add directly you can say that is the, say, or sometimes because we have to treat the stock, so I think is better not to take the factory cost incurred, say factory overheads and in this case, the factory cost incurred, yes we can take it directly to the outer column.

And then we have to add here the opening stock, opening stock of WIP, how much is opening stock of WIP? Let us check here, WIP is opening stock is Rs. 12,000, so you put it here, there is no need to put in the inner column now, directly, you can put it in the outer column and then you have to find out what is this value? This value works out as 0, 0, 0, 9, 8 and this is 7

right and then less, it is the, say this information is, that is the less closing stock of WIP, closing stock of WIP is how much? Closing stock of WIP given to us 15,000.

So, it is the closing stock of WIP is 15,000, put it in the inner column directly and then, say subtract it, so if you calculate it, you can calculate as the factory oblique works cost or you called as the total factory or the works cost, it is not simple, means, it is not the incurred cost, this is the total factory or the works cost, this cost is called as the total factory/works cost and how much it is?

This works out as 774,000, so in this information, from this information, you are only asked to calculate what? That is the information which is given and what we are asked to calculate is? Cost of raw material consumed, prime cost and factory cost incurred and the total factory cost. After that finished overheads and other things, we have not to include here in this cost sheet, they have to be taken into account in the profit and loss account or income statement and not here.

So we have taken in this case, we have calculated the cost of raw material consumed, we have calculated the prime cost as it is asked and then we have calculated the factory cost incurred and then the total factory of the works cost, remaining finished overheads, administrative expenses, selling and distribution expenses, we will trade them in the income statement or in the profit and loss account, which will prepare in the next class.

And then analyse that which are the components of the cost contributing to the, say to increase the cost and you want to reduce the cost, then you have to focus upon those particular, say components elements and then we have to reduce the total cost of the production and increase the profits, so remaining discussion and preparation of the income statement in this problem, we will discuss in the next class. Thank you very much.