Financial Accounting
Prof. Varadraj Bhat
School of Management
Indian Institute of Technology, Bombay

Lecture – 11
Depreciation 1

Namaste to all of you, we are starting with the 3rd module. In the first two modules, we have discussed the basics of financial statements. In module 1 if you remember we started with introduction, then we discussed what is balance sheet, what is the format of balance sheet, what are the assets, liabilities, equity. We also saw how are the major entries entered into; so, we had briefly discussed five important entries.

In module 2, we had started with discussion on balance sheet and P and L little more in detail. So, we have also discussed what is P and L and the format of P and L. I am once again reminding you that right from second session, I have been telling you that you need to identify your company, download the financial statements of a listed company and study the balance sheet P and L and all the statements as we are discussing in the class.

Because it is not just theory also read, observe what you are seeing in the financial statement of your company. And if you find any derivation, then what we are teaching or if you feel that there is something more to discuss, please put it on our discussion forum and you will be getting answers, you can also discuss with other members of the class. So, today we are going to start with the module 3, as you can see it is on Depreciation. If you have minutely read the P and L account, there is one item in P and L known as depreciation and amortization; that is something we are going to discuss today. It also appears in the balance sheet especially with reference to fixed assets.

Now, in our module 3, we are going to discuss two important things; one is depreciation and the other is valuation of inventory because these two are very important items in both P and L and balance sheet; so, right now let us start with depreciation. Now what do you understand by depreciation? Many of you might already know and we have also discussed what is depreciation earlier.

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Now, while beginning this module, we are going to also discuss one very important concept that is known as concept of conservatism and then we will continue with the discussion on depreciation. Now what do you mean by concept of conservatism? Do you know what it is? As the name suggest, it is about not showing profit unless it is extremely confirmed, but showing on losses whenever there is a slight likelihood of a loss. To put it in specific terms, it states that accountant should not anticipate any income, but shall provide for all possible losses.

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So, as per this concept it is not prudent to count unrealised gain, but it is desired to guard for all possible losses.

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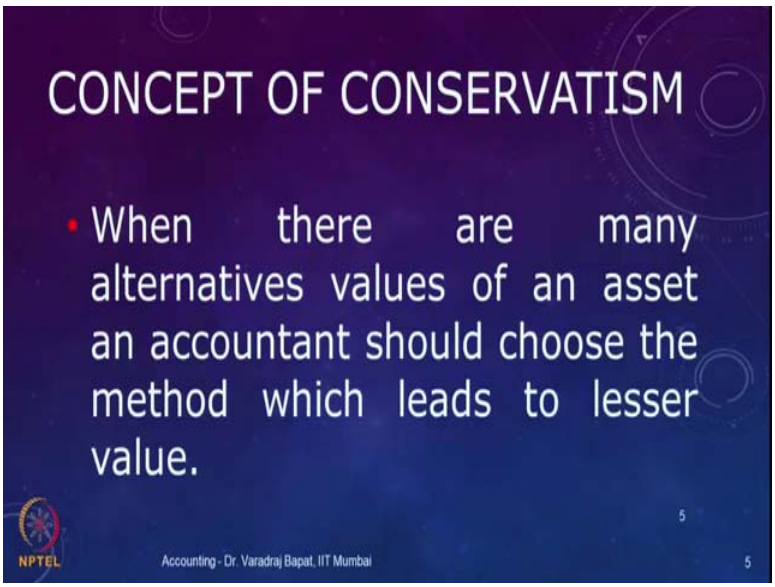

So, when the alternative values of assets are available accountants need to choose the one which leads to lesser value. So, there is a possibility that a particular asset can have two values. As per one method the value is 50000, as per the other method it is 45000. Now to be on safer side as per the concept of conservatism, we will say that let us value the asset at 45000. Because instead of showing excessive value, it is better to be on a safer

side or on the conservative side because, we do not want the value in the balance sheet to be inflated. We are if it is slightly on a lower side ok.

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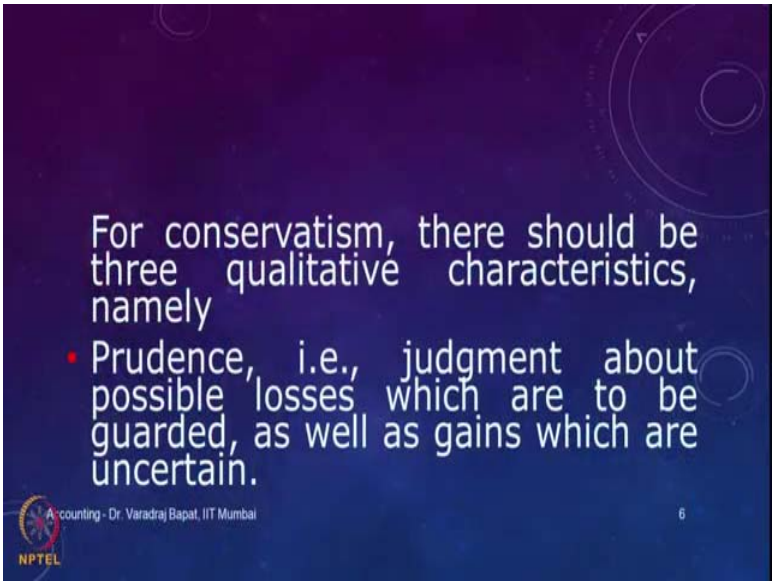

Now, for conservatism there are three important qualitative characteristics; the first one is prudence. So, the judgement about the losses which are to be guarded as well as the gains which are uncertain. So, even if there is a slight possibility of a loss, we account for it.

If you remember we have discussed provisions when we discuss the balance sheet. So, whenever there is a likelihood of a loss, there is no certainty that loss will arise, but there is a chance that there will be a loss, what we do is we estimate the likely loss and make a provision and show it in the balance sheet as a liability. But when it comes to gains that there may be some gain then we do not account for it. So, this is the first qualitative characteristic known as prudence.

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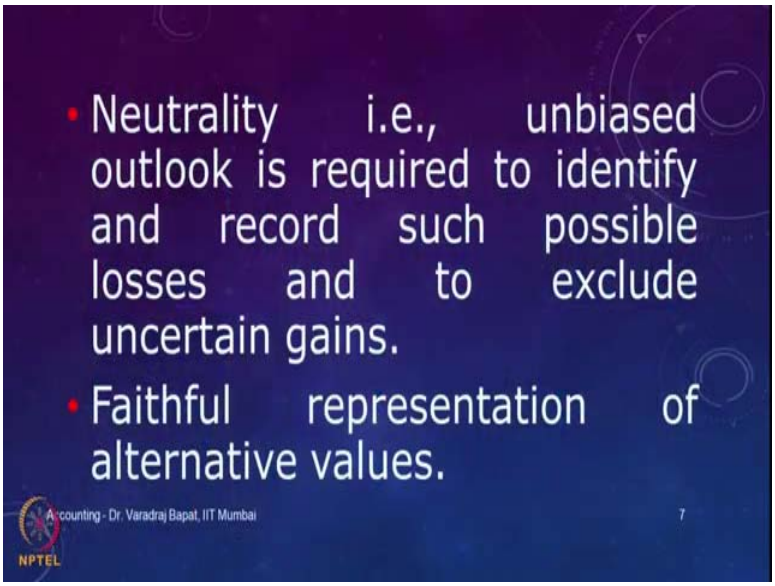

The second one is neutrality. Unbiased outlook is required to identify and record such possible losses and to exclude all uncertain gain. Now when you are sitting in the chair of managing director or assembly who is manager, there is likelihood that you would like to show better results. So, you would like to show more profits, but accountant is supposed to be neutral. Accountant needs to have an unbiased view and ensure that any slight chance of loss should be identified and recorded while whatever the profits or gains we are recording, they should have hundred percent certainty. Any possible uncertain gain should be excluded.

And the third one is faithful representation of alternate values. So, when accountant is recording or showing an item in the balance sheet, first of all faithfully identify all possible values and then while recording the asset take the lower value. When it comes to balance sheet liability side, we would record and we would create provision for all possible losses.

When it is for preparing of P and L when a loss is being accounted in the balance sheet automatically it will also be recorded in a profit and loss statement. So, to an extent the profit will be understated and we will ensure that because of any uncertain gain the profit is not over stated. Are you getting me; now, this concept of conservatism is very important and it is at a root of several accounting treatments.

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Two important examples are there on the screen. The first one is the closing stock is valued at cost or market value whichever is lower. So, in the balance sheet while showing the inventory, a particular item of stock or inventory will have a cost. If its market value is more than the cost which is more a likelihood that the cost is 10000, the market value is 12000. In such scenario, we will not record unrealised profit of two 2000 because we have not yet sold the item. It has a market value of 12, but its cost is only 10 so, we will continue to show it at 10.

However, suppose the cost is 10, but market value falls to 9000, then there is a possibility of loss of 1000. We have not yet sold the particular item at 9000, but its market value has come down to 9000. In such scenario that item of stock, we will record at 9000.

So, we will already record a loss which is likely to happen. That is why, any item of closing stock should be valued at cost or market value whichever is less. Now after today's session, we will look into details of valuation of inventory, but right now just keep it as an example of conservatism; are you getting me?

Now the next one; the next one is the topic which we are going to discuss today that is about depreciation. Now, most of you know that depreciation refers to fall in the value of fixed asset. Now such fall might not have happened in a particular period, but still because of conservatism, we take the cost of asset, we look at the life of the asset and

spread that cost over its life. So, we will go on reducing the balance sheet value of the asset every year, we will not wait till the asset is fully exhausted.

So, suppose you purchase the machinery at 1000, it has a value a life of 5 years. We will not wait for 5 years to for it to lose its value; every year this 10000 rupees will be spread over the period of 5 years. So, value is 10000, the life which is estimated is 5 years so, we will distribute 10000 by 5 that is 2000 each year and make a provision for depreciation every year.

So, the concept of conservatism is at the root of the need to provide depreciation ok. There are some more examples also, but these two are very prominent one hence, we are also going to discuss them in this course. Now can you think of any other example? Are you able to feel think that there is any other possibility where we use conservatism; I think some of you are guessing correct.

Suppose we make a credit sale, the amount is yet to be collected from the customer. So, we show it in the balance sheet as a debtor or a receivable. Now there is a likelihood that few of our customers do not pay their dues on time and eventually they do not pay at all. So, there will be a need to create a provision for this. This is normally is known as RDD or Reserve for Doubtful Debts. So, any customer any debtor, if is likely to not pay; we will immediately make a provision ok. So, like that we can have some more examples also, but right now let us go ahead.

Now, we will discuss about depreciation.

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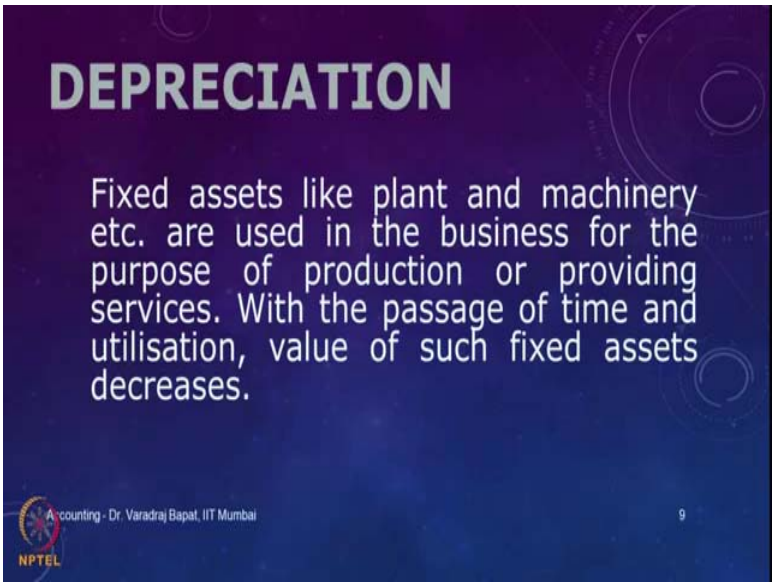

Now, depreciation especially it is for fixed assets which are used in business either for production or for supply of services. Now, typically they lose value as we use a particular asset, the value of asset is likely to fall because of its use. Even if you do not use the asset just by a passage of time also, the asset value is gradually reduced.

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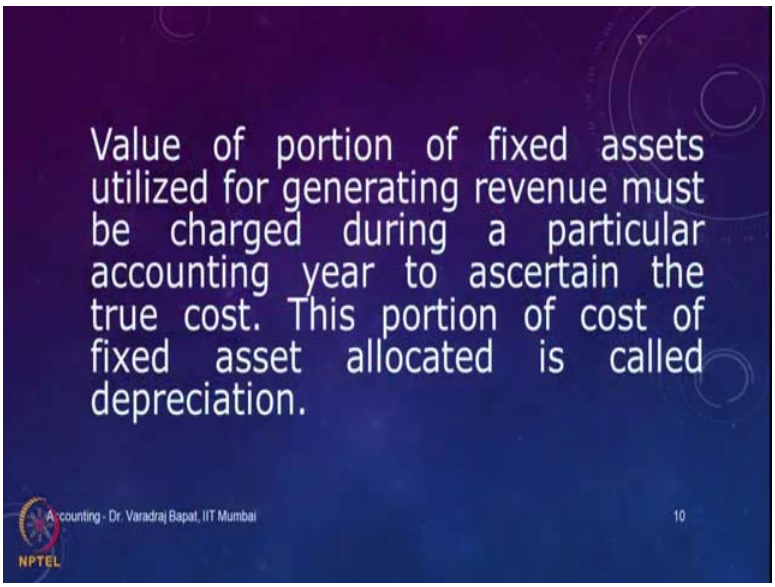

Now, that portion of value of asset which slowly reduces its value, it is necessary that that loss of value it charged to profit and loss account because we are using that asset to

generate revenue. So, against current revenue, there is a necessary to charge expense for loss of value of fixed asset.

Now, the portion of cost which is a loss of value for the current period is called as a depreciation for that particular period.

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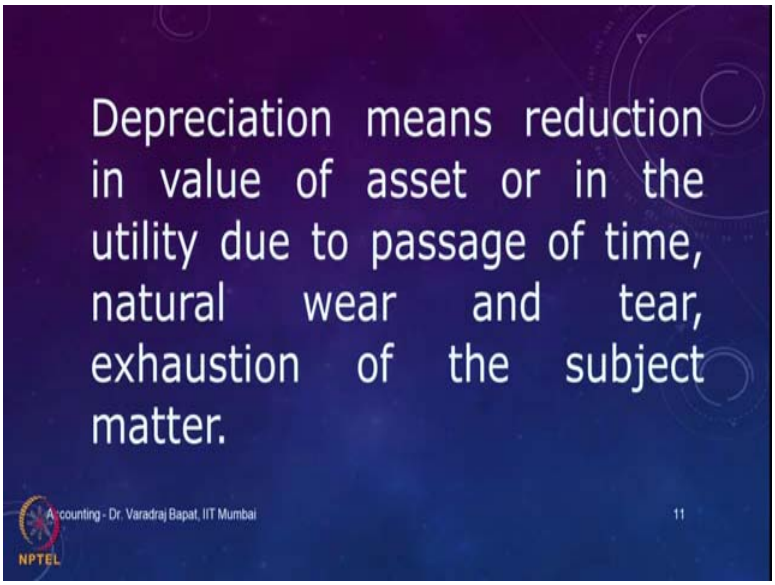

What it means is, it is a reduction in the value of fixed asset or it is reduction in the utility of that particular asset due to variety of reasons. It can be due to passage of time, it can be due to natural wear and tear, it can be due to obsolescence or it can be due to exhaustion of subject matter. But there is a gradual and continuous fall in the value that we are recording as depreciation. So, we have just discussed the major causes of depreciation.

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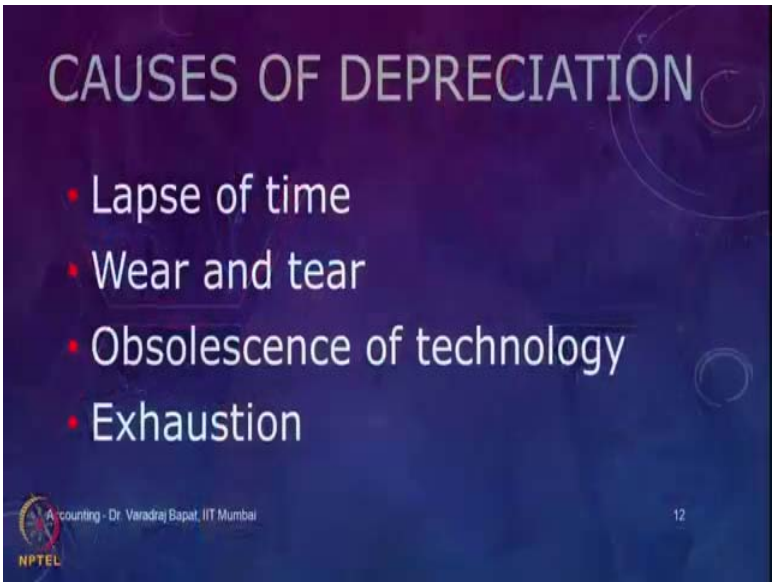

The first one; that is, lapse of time. Now if you purchase a brand new car, do not use it. Suppose you purchase say a vehicle at 15 lakhs, do not use it for 2 years. After 2 years, will it have a value of 15 lakhs? The answer is no, because just by lapse of time even if you do not use it because it has become older vehicle, it loses its value.

So, one important cause which is irrespective of uses lapse of time, the other is wear and tear because most of the assets we are buying to use them. So, as we use them, there is some wear and tear there is some value loss because of utilisation; so, that is accountant. The third one is obsolescence of technology because new technologies are coming up that is why the older assets would soon become outdated.

In today's era, the biggest reason for depreciation is obsolescence because much better products, much better technology, much better services are available every now and then. So, even before the useful life is lost by wear and tear, it gets lost due to obsolescence. I think the best example is our mobile phones, I know everybody wants to change mobile phones within say 6 months or 1 year.

The old phone might not be still unusable, but newer phone might give much better utilities. That is why with better availability of either hardware or software, one tends to replace the assets faster that is mainly because of obsolescence. If you as observe carefully, many of the apps either on our mobile or on computer, they need to be deleted

or updated continuously because the older versions are no longer, the best versions and the newer versions are available that is also because of obsolescence.

The fourth reason is exhaustion; the exhaustion of subject matter. Can you think of it is related to which asset? Anyone has a clue because most of the assets which we normally use like say mobile phones, computers, machinery or furniture; they are subject to first three reasons, but not much to exhaustion. So, which are the assets which are subject to exhaustion? I think some of you are guessing it correctly, it is asset like a mine.

So, in mine what happens is as we are extracting a particular mineral, the value of the mine falls not by time loss or not by obsolescence, but mainly because whatever is mineral in that mine goes down; the stock of that mineral goes down. So, for a specific assets like mines or like oil wells, the exhaustion is a major reason for depreciation ok. I hope, you are getting all the causes correct. So, these are the objectives of providing depreciation.

Now, we are generating revenue to know the correct profits we should also account for costs in that period. I think we have seen in P and L account that matching concept is a important concept of P and L. So, it is necessary that though we are not paying for depreciation in cash, we should account for this loss which is not a cash loss, but it is a loss of value of asset which is for generating this revenue. So, to ascertain the correct results in P and L account, it is necessary to make a provision for depreciation. It is equally true to present the true and fair value of fixed assets.

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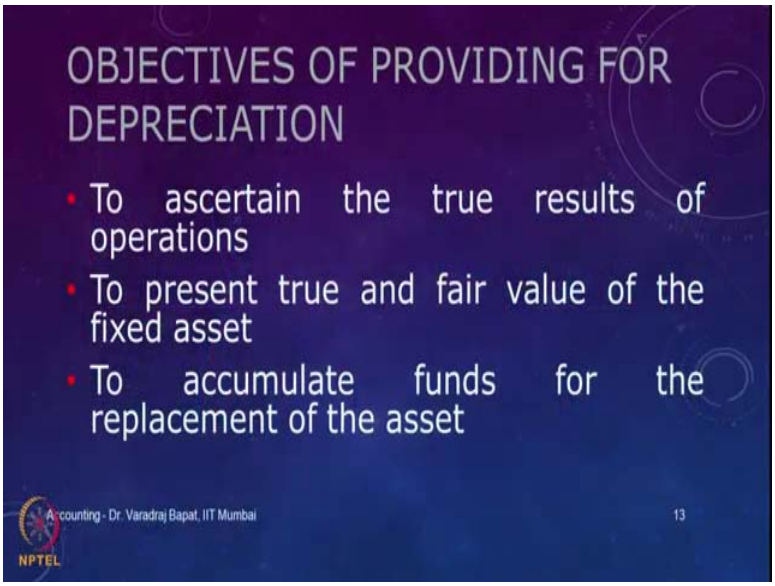

Because if a particular let us say, example of mobile phone if a mobile phone is purchased for 20000, it has a life for 2 years; that means, at the end of year 1, its value is down from 20000 to 10000. If in the balance sheet, we continue to show 20000, it will be a wrong representation. That is why we need to make a provision; I am here assuming that 20000 is a depreciation is a value each year the depression is 10000; first year 10000, second year 10000. So, we will make a provision for 10000 in year 1 so, valuable reduced from 20000 to 10000 which will be a true and fair value ok.

Now, the third one is to accumulate the funds for replacement. So, suppose after 2 years we want to buy another mobile for 20000, we need to set aside that much of money. Because if we do not do anything for 2 years, after 2 years suddenly we will realize that the old phone is now no longer usable. So, what we do is every year let us say, we keep aside 10000 10000 so, that at the end of 2 years we have got enough money for replacement of earlier assets ok.

Now, how do you calculate? Now it is very difficult to calculate the exact amount, but what we do is, we make an estimate. So, that we get the closest possible amount, what are the important factors for estimation?

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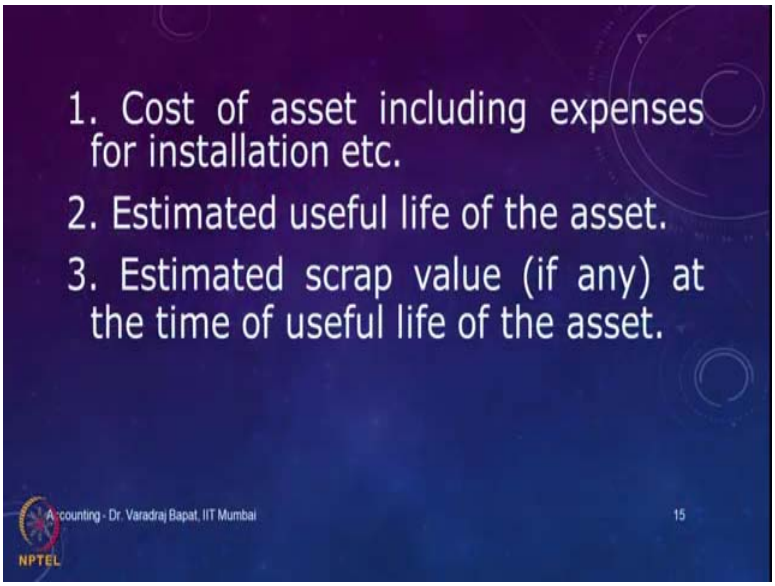

The first one is of course, the cost of asset; keep in mind that the cost should include expenses like installation. So, if you have purchased a machinery, it will need some installation. That installation cost should also be added to the cost of asset then we try to estimate the useful life of the asset.

So, suppose if a machine is likely to be used for 4 years in a productive and an efficient manner, it may have a total life of 5 years, but in the 5th year it may face with lot of accidents or possibility of more repairs. So, we may not want to use it in 5th year, we may want to use it in the most profitable manner for 4 years in which case the useful life; see the total life is 5, but the useful life can be considered as 4.

Now, we look at the estimates provided by the manufacturers and also our own experience to calculate the useful life of a particular item. The third one is scrap value at the time of useful life. So, suppose we are going to use the machine only for 4 years, at the end of fourth year we may sell it as a second hand asset to someone else or we may scarp it and it will give you some scrap value.

So, whatever is a value which is a sellable value at the end of that useful life that will be also considered. So, these three factors are first estimated and based on that the depreciation is calculated.

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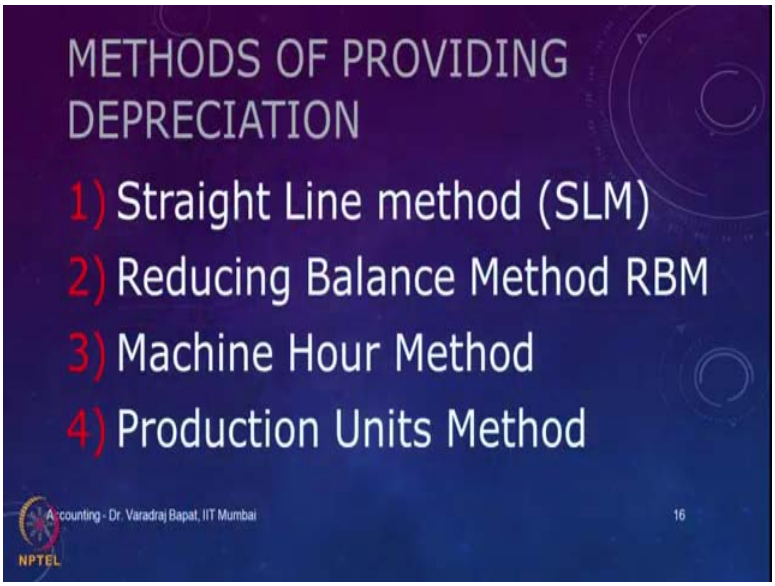

Now, there are variety of methods for providing for depreciation, four methods are particularly popular. The first one is straight line method, the next as you can see is Reducing Balance of RBM, machine hour and production units.

Now, let us see or discuss them one by one.

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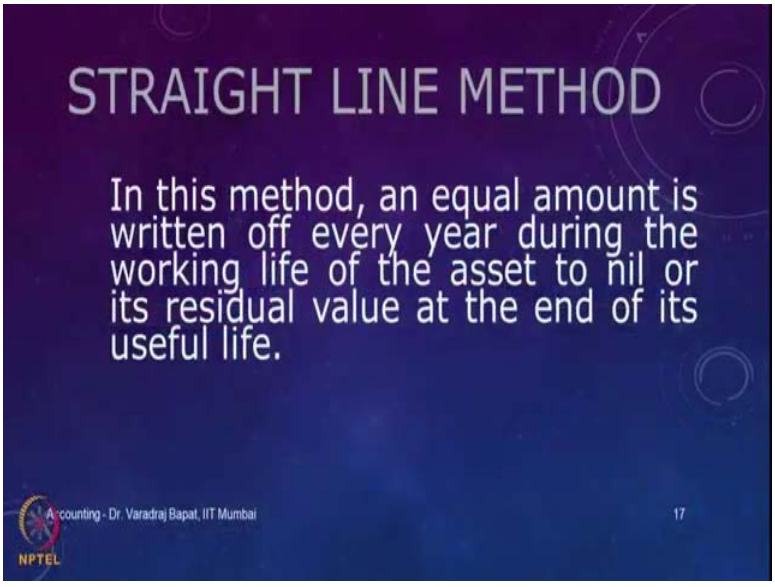

Now, straight line method is very simple; we estimate the useful life and spread over the entire depreciable cost over its useful life. So, suppose a particular machine is purchased for 10000, it has a total life of 5 years, but useful life is 4 years. So, 4 will be our

denominator, 10000 is a cost. Let us say, it is likely to have a scrap value of 2000 so, 10 minus 2; that means, 8000 is a depreciable amount to be written off over a period of 4 years so, 8000 by 4 so, each year depreciation will be 2000. Now this remains constant for all the 4 years, that is why it is called as a straight line method ok.

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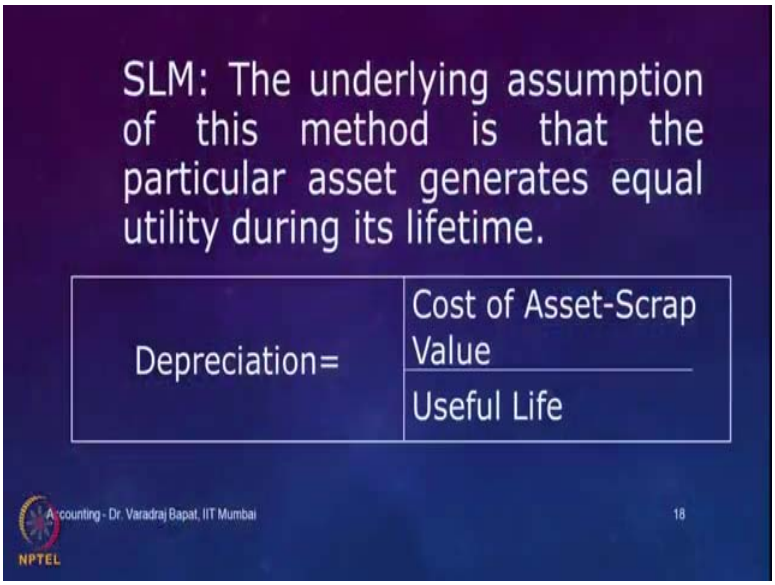

Now, this is a formula; cost of asset minus the scrap value at the end of useful life divided by useful life. So, you get annual depreciation which remains fixed throughout its life.

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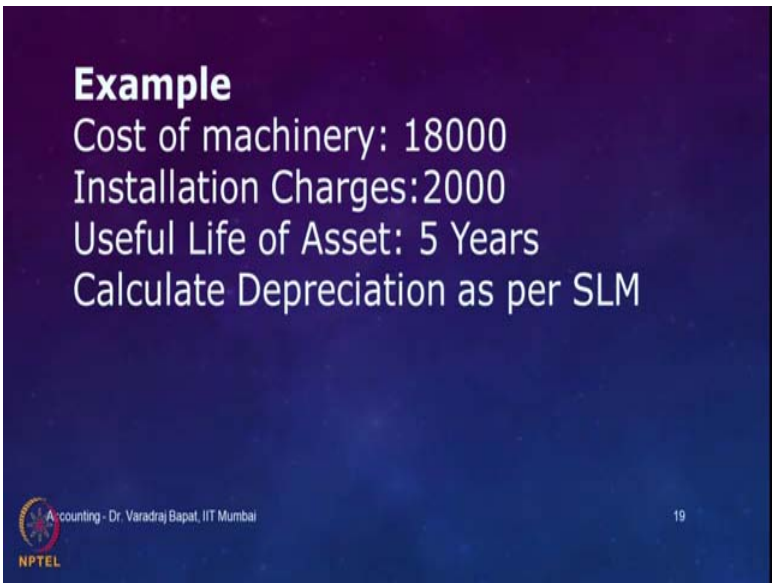

So, here is an example. I think it is very simple so, all of you can calculate it orally. So, cost of machinery is 18000, installation charges are 2000, useful life is 5 years, we are assumed that scrap value is 0. So, how much is a depreciation 18 plus 2 so, total cost is 20 to be written off over a period of 5 years.

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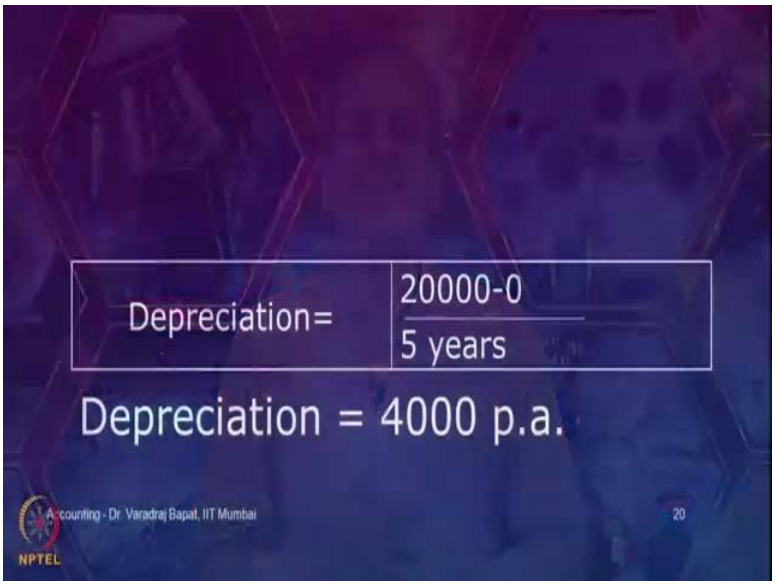

So, 20 upon 5; that means, 4000 per annum is a depreciation. I think very simple everybody is able to calculate. Are you getting?

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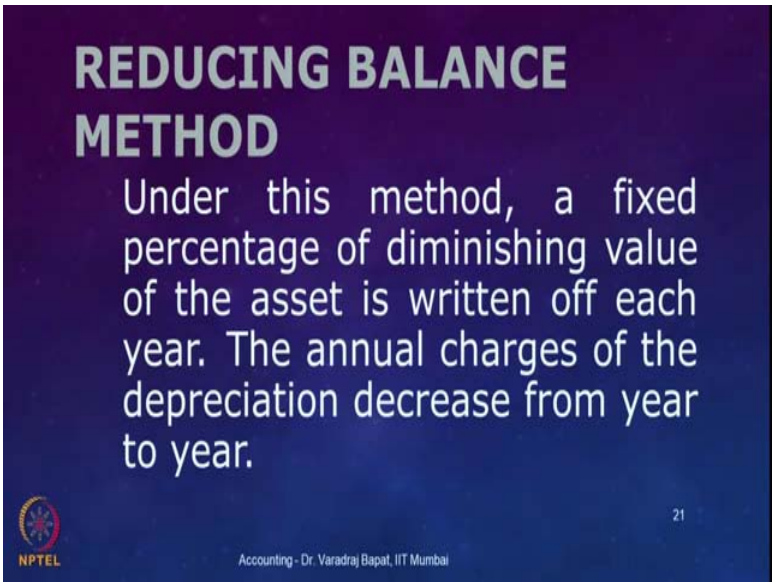

Now, let us make go to the next method. The second method is known as reducing balance method. Now here what we do is instead of calculating a fixed annual amount, we calculate a fixed percentage or a fixed rate. Now every year whatever is a value of machinery at the beginning, we charge it at a particular rate and calculate the depreciation for that year.

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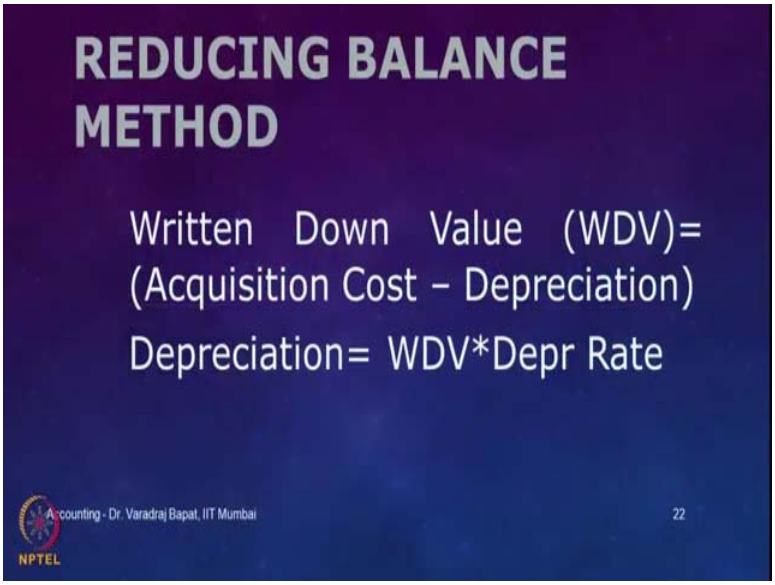

So, depreciation is calculated as,

Depreciation = WDV * depreciation rate.

Now what is WDV?

Written Down Value = acquisition cost - depreciation.

So, in year 1; if you go by our earlier example, our machineries cost was 18000, suppose the rate of depreciation is 10 percent 18000 into 10 percent; that means, 1800 will be the depreciation for year 1.

But in year 2, we will not charge 10 percent on 18000, what we will do is first we will say 18000 minus 1800; that means, the cost of machine or the value of machine known as WDV is itself reduced which has come to now 16200 on that we charge 10 percent. So, we will get 1620 as a depreciation for year 2; let us look.

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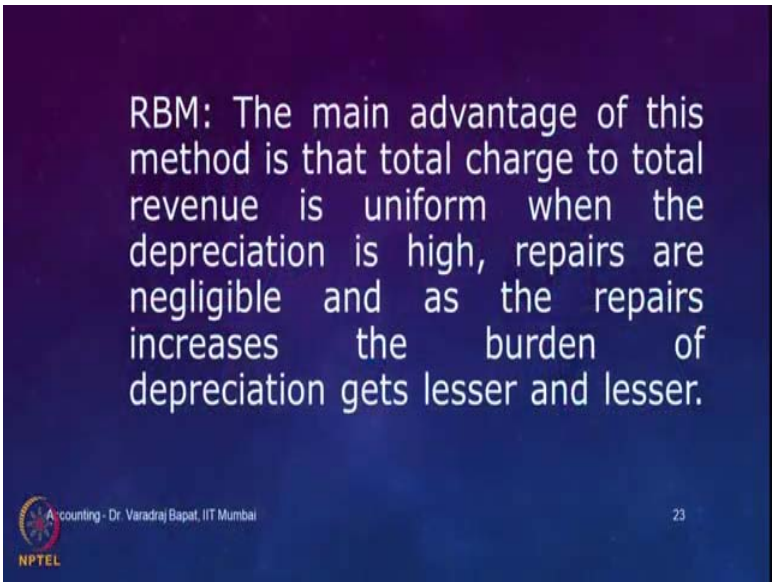

Now, the main advantage of this method is that the total charge of depreciation is now not uniform, over a period of time it falls. Because in the later years your repair expense is high, it is good to charge more depreciation in the earlier year and charge lesser depreciation in the later years. So, this is the formula, depreciation is WDV into depreciation rate.

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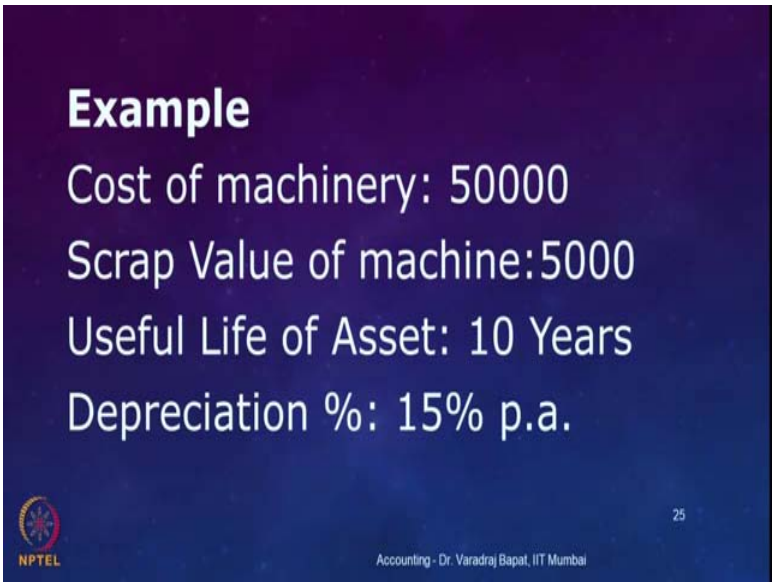

Let us take one very simple example. The cost of machinery is 50000, the scrap value is 5000 useful life is 10 years and depreciation rate is calculated at 15 percent.

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So, we will try to calculate depreciation for first 2 years. In the first year, it simple 50000 into 15 percent that is 7500. Now in the second year, we will not charge 15 percent on 50000 first we take 50000 minus 7500. So, 42500 is a WDV on that we will charge 15 percent. So, year 1, depreciation is 7500; year 2, it is 6350; year 3, it will be further reduced. Each year the depreciation is reduced that is why it is known as written down value method.

So, I hope you have understood first two methods. Just compare them; straight line and written down. In the next session we will discuss a little more about them. Namaste.

Thank you.