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**Assignment: Final Term**

**Q#1: Time value of money is one of the important concepts in any business. While considering the concept of time value of money, please introduce term discounting and compounding in detail.**

**Answer:**

**Time Value of Money:** Time Value of Money says that the value of a unit of cash will be changed in future. Set forth plainly, the estimation of one rupee today will be diminished in future. The entire idea is about the current worth and future estimation of cash. There are two techniques utilized for finding out the value of cash at various purposes of time, specifically, aggravating and limiting. Aggravating technique is utilized to know the future estimation of present cash. Alternately, limiting is an approach to process the current estimation of future cash.

**Compounding or future value:** For understanding the idea of intensifying, most importantly, you have to think about the term future worth. The cash you contribute today, will develop and acquire enthusiasm on it, after a specific period, which will naturally change its incentive in future. So the value of the interest in future is known as its Future Value. Intensifying alludes to the way toward winning enthusiasm on both the chief sum, just as collected enthusiasm by reinvesting the whole add up to produce more premium.

FV=PV \* (1+i) n

FV=future value

PV= present value

I=interest

N=number of years

**Example:** Mr. Khan invested money in stock. The company paid Rs 3 dividend last year the dividend is expected to grow at 20% rate per year for the next 3 years what is the dividend at the end of the third year.

F.V= P (1+i)

=3(1+0.2)3

=3(1.2)3

FV3= 5.184 so 3rs today value will be 5.184 at 3rd year end.

**Discounting or present value:** Limiting is the way toward changing over the future sum into its Present Value. Presently you may think about what is the current worth? The current estimation of the given future worth is known as Present Value. The limiting strategy assists with finding out the current estimation of future incomes by applying a rebate rate. The accompanying recipe is utilized to know the current estimation of a future whole:

PV=FV\* {1/ (1+i) n}

**Example:** Suppose you have the decision of being paid $2,000 today or $2,200 one year from now. You additionally have the choice of contributing the $2,000 that will procure a 3% pace of return throughout the following year. Which is the most ideal choice?

* Using the present value formula, the calculation is $2,200 (FV) / (1 +. 03) ^1.
* PV = $2,135.92, or the minimum amount that you would need to be paid today to have $2,200 one year from now. At the end of the day, on the off chance that you were paid $2,000 today and dependent on a 3% loan cost, the sum would not be sufficient to give you $2,200 one year from now.
* Obviously, the current worth estimation incorporates the presumption that you could gain 3% on the $2,000 throughout the following year. On the off chance that the loan fee was a lot higher, it may bode well to take the $2,000 today and contribute the assets since it would yield a more noteworthy sum than $2,200 one year from now.

**Q#2: What do we meant by annuity in time value of money. Explain the concept of annuity in both perspectives annuity due and ordinary aunty explain it with formulas how to calculate annuity due and ordinary annuity.**

**Answer:**

**Annuity:** An annuity is a progression of equivalent installments made at equivalent stretches during a timeframe. At the end of the day, it's an arrangement of making or getting installments where the installment sum and timeframe between installments is equivalent.

Various people play the lottery in might want to benefit from the gigantic huge stake. Heartbreakingly, a considerable number individuals don't win it colossal, anyway an incredibly minimal degree of people do. After they win, they consistently need to choose the choice whether to be paid in a particular sum or in an annuity. For example, a million dollar huge stake could be paid out rapidly in one particular measure of $600,000 or in $5,000 normally booked installments for quite a while.

**Annuity Due:** An annuity due is a repeating installment that is made toward the start of every period, for example, a lease installment. It has the accompanying qualities:

All installments are in a similar sum, (for example, a progression of installments of $500).

All installments are made at similar timespans, (for example, when a month or year).

All installments are made toward the start of every period, (for example, installments being made distinctly on the main day of the month).

**Example:** An organization procures a copier through a rent that requires an installment of $250 toward the start of every month for a long time. Since all installments are in a similar sum ($250), they are made at ordinary spans (month to month), and the installments are made toward the start of every period, the installments are an annuity due**.**

**Ordinary annuity:** Usually, installments made under the standard annuity idea are made toward the finish of every month, quarter, or year, however other installment spans are conceivable, (for example, week by week or even day by day). Instances of customary annuity installments are:

• Semi-yearly intrigue installments on bonds

• Quarterly or yearly profit installments

At the point when an annuity is paid toward the start of every period, it is called an annuity due. Since installments are made sooner under an annuity due than under a customary annuity, an annuity due has a higher present an incentive than a common annuity.

At the point when loan fees rise, the estimation of a conventional annuity is decreased. At the point when loan costs decay, the estimation of the annuity is expanded. The explanation behind these varieties is that the current estimation of a surge of future money installments is reliant on the loan cost utilized in the current worth recipe. As the time estimation of cash changes, so does the annuity valuation.

**Example:** A bond has a $80 coupon installment that is paid toward the finish of each half year time span until the bond develops. Since all installments are in a similar sum ($80), they are made at standard spans (a half year), and the installments are made toward the finish of every period, the coupon installments are a conventional annuity.

**Q#3: Capital budgeting is one of the important elements while considering strategic decision making. What are the basic steps that we should consider while considering capital budgeting decision making? Explain the five steps in detail.**

**Answer:**

* 1. **Proposal generation:** The initial move towards capital planning is to produce a proposition for speculations. There could be different purposes behind taking up interests in a business. It could be expansion of another product offering or extending the current one. It could be a proposition to either build the creation or lessen the expenses of yields.
	2. **Review and Analysis:** Is the conventional procedure of surveying the propriety and monetary suitability of the venture considering the association's general destinations. This is finished by creating incomes pertinent to the undertaking and assessing them through capital planning strategies. Hazard factors are too fused into the investigation stage.
	3. **Decision making:** Decision making is the third step. In the stage of decision making the executives will have to decide which investment is needed to be done from the investment opportunities available keeping in mind the sanctioning power available to them.

**Example:** For instance, the managers at the lower level of management like work managers, plant superintendent, etc. may have the power to sanction the investment up to the limit of $10,000 beyond that the permission of the board of directors or the senior management is required. If the investment limit extends then the lower management has to involve the top management for the approval of the investment proposal.

* 1. **Implementation:** After the completion of all the above steps, the investment proposal under the consideration is implemented i.e., put into a concrete project. There are several challenges that can be faced by the management personnel while implementing the projects as it can be time-consuming. For the implementation at the reasonable cost and expeditiously the following things could be helpful:

**Example:** For prompt processing, the committee of capital budgeting must ensure that management has properly done the homework on the preliminary studies and compendious formulation of the project before its implementation and after that, the project is implemented efficiently.

* 1. **Follow-up:** In this, the management is required to compare the actual results with that of the projected results. The correct time to do this comparison is when the operations get stabilized.

**Q#4: Introduce the different cash flows that any business activity has while doing any business (Initial investment, operating cash flow and terminal cash flow). How we have to calculate it while going for replacement of existing asset.**

**Answer**

**Initial Investment:** The underlying speculation is the underlying expense required, considering the introduced cost of the new resource, continues from the offer of the old resource, charge on the offer of the old resource, and any change in net working capital.

An underlying expense alludes to the underlying ventures required so as to start a given task. For example, if opening another industrial facility, an organization would need to buy new land and hardware so as to get the task moving.

Installation cost of proposed asset

 Cost of proposed asset

 + Installation costs

 Total installation cost (Depreciable)

* After tax proceeds from sale of present asset

Proceed from the sale of present asset

* Tax on sale of present asset

Total after tax proceeds

 + Change in net working capital

INITIAL INVESTMENT

**Operating cash flow:** The operating cash inflows are the additional cash flows received as a result of implementing a proposal.

Operating Cash Flow is the measure of money produced by the standard working exercises of a business inside a particular timeframe. OCF starts with net gain (from the base of the pay proclamation), includes back any non-money things, and alters for changes in net working capital, to show up at the absolute money produced or devoured in the period. When performing monetary investigation, working income ought to be utilized related to overall gain, free income, and different measurements to appropriately evaluate an organization's exhibition and money related wellbeing.

Operating Cash Flow = Net Income + Depreciation + Stock Based Compensation + Deferred Tax + Other Non-Cash Items – Increase in Accounts Receivable – Increase in Inventory + Increase in Accounts Payable + Increase in Accrued Expenses + Increase in Deferred Revenue

 **Terminal cash flow:** The terminal income is the income coming about because of end and liquidation of a venture toward the finish of its monetary life. The type of computing terminal incomes is demonstrated as follows:

Terminal Cash Flow Calculation: After-tax proceeds from sale of new asset = Proceeds from sale of new asset ± Tax on sale of new asset − After-tax proceeds from sale of old asset = Proceeds from sale of old asset ± Tax on sale of old asset ± Change in net working capital = Terminal cash flows