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OF BANGLADESH

MID-TERM EXAMINATION

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BATCH: 55 TH

QUESTION NO 01

Write notes short:

NPV, IRR, PBP, ROI, ARR

Answer to the question no 01

NPV

Net Present Value (NPV) is the value of all future cash flows (positive and negative) over the entire life of an investment discounted to the present. NPV analysis is a form of intrinsic valuation and is used extensively across finance and accounting for determining the value of a business, investment security, capital project, new venture, cost reduction program, and anything that involves cash flow.

NPV Formula

The formula for Net Present Value is:

$$NPV_{XYZ} = \frac{Z_1}{1+r} + \frac{Z_2}{(1+r)^2} - X_0$$

Where:

- Z_1 = Cash flow in time 1
- Z_2 = Cash flow in time 2
- r = Discount rate
- X_0 = Cash outflow in time 0 (i.e. the purchase price / initial investment)

Example of Net Present Value (NPV)

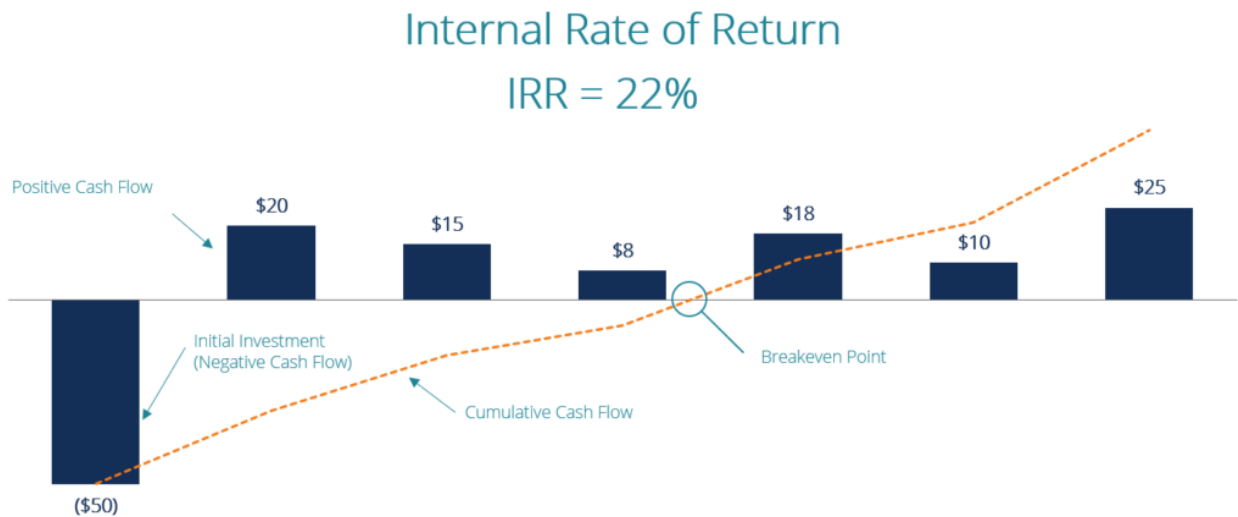
Let's look at an example of how to calculate the net present value of a series of cash flows. As you can see in the screenshot below, the assumption is that an investment will return \$10,000 per year over a period of 10 years, and the discount rate required is 10%.

Discount Rate	10.0%									
Year	1	2	3	4	5	6	7	8	9	10
Discount Factor	0.91	0.83	0.75	0.68	0.62	0.56	0.51	0.47	0.42	0.39
Undiscounted Cash Flow	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000	10,000
Present Value	9,091	8,264	7,513	6,830	6,209	5,645	5,132	4,665	4,241	3,855
Net Present Value	61,446									

The final result is that the value of this investment is worth \$61,446 today. It means a rational investor would be willing to pay up to \$61,466 today to receive \$10,000 every year over 10 years. By paying this price, the investor would receive an internal rate of return (IRR) of 10%. By paying anything less than \$61,000, the investor would earn an internal rate of return that's greater than 10%.

IRR

The Internal Rate of Return (IRR) is the discount rate that makes the net present value (NPV) of a project zero. In other words, it is the expected compound annual rate of return that will be earned on a project or investment. In the example below, an initial investment of \$50 has a 22% IRR. That is equal to earning a 22% compound annual growth rate.



When calculating IRR, expected cash flows for a project or investment are given and the NPV equals zero. Put another way, the initial cash investment for the beginning period will be equal to the present value of the *future* cash flows of that investment. (Cost paid = present value of future cash flows, and hence, the *net* present value = 0).

Once the internal rate of return is determined, it is typically compared to a company's hurdle rate or cost of capital. If the IRR is greater than or equal to the cost of capital, the company would accept the project as a good investment. (That is, of course, assuming this is the sole basis for the decision.

In reality, there are many other quantitative and qualitative factors that are considered in an investment decision.) If the IRR is lower than the hurdle rate, then it would be rejected.

IRR Formula

The IRR formula is as follows:

$$0 = CF_0 + \frac{CF_1}{(1 + IRR)} + \frac{CF_2}{(1 + IRR)^2} + \frac{CF_3}{(1 + IRR)^3} + \dots + \frac{CF_n}{(1 + IRR)^n}$$

Or

$$0 = NPV = \sum_{n=0}^N \frac{CF_n}{(1 + IRR)^n}$$

Where:

CF_0 = Initial Investment / Outlay

$CF_1, CF_2, CF_3 \dots CF_n$ = Cash flows

n = Each Period

N = Holding Period

NPV = Net Present Value

IRR = Internal Rate of Return

Calculating the internal rate of return can be done in three ways:

1. Using the IRR or XIRR function in Excel or other spreadsheet programs (see example below)
2. Using a financial calculator
3. Using an iterative process where the analyst tries different discount rates until the NPV equals zero (Goal Seek in Excel can be used to do this)

Practical Example

Here is an example of how to calculate the Internal Rate of Return.

A company is deciding whether to purchase new equipment that costs \$500,000. Management estimates the life of the new asset to be four years and expects it to generate an additional \$160,000 of annual profits. In the fifth year, the company plans to sell the equipment for its salvage value of \$50,000.

Meanwhile, another similar investment option can generate a 10% return. This is higher than the company's current hurdle rate of 8%. The goal is to make sure the company is making the best use of its cash.

To make a decision, the IRR for investing in the new equipment is calculated below.

Excel was used to calculate the IRR of 13%, using the function, $=IRR()$. From a financial standpoint, the company should make the purchase because the IRR is both greater than the hurdle rate and the IRR for the alternative investment.

Year	Cash Flows	PV of Cash Flows
0	-\$500,000	-\$500,000
1	\$160,000	\$141,247
2	\$160,000	\$124,692
3	\$160,000	\$110,077
4	\$160,000	\$97,176
5	\$50,000	\$26,808

NPV	0
IRR	13%

PBP

The payback period (PBP) is an investment appraisal technique that tells the amount of time taken by the investment to recover the initial investment or principal. The calculation of the PBP is very simple, and its interpretation too. The advantage is its simplicity, whereas there is two

major dis-advantage of this method. It does not consider cash flows after this period. It also ignores the time value of money.

The payback period is one of the simplest capital budgeting techniques. It calculates the number of years a project takes in recovering the initial investment based on the future expected cash inflows.

Payback Period Formula

To find out the exact payback period, we can use the following formula / equation:

Payback Period = $W + (X - Y) / Z$ where,

$$3 + (1000000 - 570000) / 500000$$

$$\Rightarrow 3 + 430000 / 500000$$

$$= 3 + 0.86 = 3.86 \text{ Years}$$

W is the year before the investment value is crossed in cumulative cash flows, i.e., 3 in our case.

X is the initial investment or the initial cash outlay

Y is the cumulative cash flow just before the investment value is crossed in cumulative cash flows

Z is the cash flow of the year in which the cumulative cash flows cross the investment value.

Payback Period Example

Suppose a project with initial cash investment of \$1,000,000 with a cash flow pattern from 1 to 5 years – 120,000.00, 150,000.00, 300,000.00, 500,000.00 and 500,000.00.

We will first arrange the data in a table with year-wise cash flows and an additional column of cumulative cash flows, as shown below.

Year	Cash Flow	Cumulative Cash Flows
0	(X) -1,000,000.00	
1	120,000.00	120,000.00
2	1,50,000.00	270,000.00
3 (W)	300,000.00	(Y) 570,000.00
4	(Z) 500,000.00	1,070,000.00
5	500,000.00	1,570,000.00

From the above table, we can easily make out that the PBP is greater than 3 but less than 4 years since the cumulative cash flow value crosses the initial investment amount in year 4.

ROI

Return on investment (ROI) is a metric used to understand the profitability of an investment. ROI compares how much you paid for an investment to how much you earned to evaluate its efficiency.

ROI stands for “return on investment,” and it’s a financial metric to calculate the amount of return on your investment; it essentially measures whether your investment is profitable and efficient.

If your ROI is more than 0%, your investments are profitable and making your business money, but if it’s below 0%, then you should consider finding new strategies that provide more value than what they cost.

calculate ROI

ROI can be calculated with this formula: $ROI = (\text{return} - \text{investment}) / \text{investment}$

This straightforward formula has just two parts: return and investment. And the result is expressed as a percentage or a ratio. Here's how to figure out each of the two values on social media:

- **Return:** This is one of the trickier elements of social media ROI because it can mean so many different things to so many different marketers, but mainly you should just pick a goal (such as new followers, orders, link clicks, etc), stick to it, and assign a monetary value to it.
- **Investment:** While it's true that using Instagram, Twitter, and Facebook is free, but your time, your social media tools, and your ad spend are worth real dollars.

ARR

The accounting rate of return (ARR) is a formula that reflects the percentage rate of return expected on an investment or asset, compared to the initial investment's cost. The ARR formula divides an asset's average revenue by the company's initial investment to derive the ratio or return that one may expect over the lifetime of an asset or project. ARR does not consider the time value of money or cash flows, which can be an integral part of maintaining a business.

The accounting rate of return is a capital budgeting metric that's useful if you want to calculate an investment's profitability quickly. Businesses use ARR primarily to compare multiple projects to determine the expected rate of return of each project, or to help decide on an investment or an acquisition.¹

ARR factors in any possible annual expenses, including depreciation, associated with the project. Depreciation is a helpful accounting convention whereby the cost of a fixed asset is spread out, or expensed, annually during the useful life of the asset. This lets the company earn a profit from the asset right away, even in its first year of service.

The Formula for ARR

The formula for the accounting rate of return is as follows:

$$\text{ARR} = \frac{\text{Total revenue of yearly subscriptions} + \text{Total revenue gained from add-ons and upgrades} + \text{Total revenue lost due to downgrades, cancellations, and churn}}{\text{Initial investment}}$$

How to Calculate the Accounting Rate of Return (ARR)

1. Calculate the annual net profit from the investment, which could include revenue minus any annual costs or expenses of implementing the project or investment.
2. If the investment is a fixed asset such as property, plant, and equipment (PP&E), subtract any depreciation expense from the annual revenue to achieve the annual net profit.

3. Divide the annual net profit by the initial cost of the asset or investment. The result of the calculation will yield a decimal. Multiply the result by 100 to show the percentage return as a whole number.

Example of the Accounting Rate of Return (ARR)

As an example, a business is considering a project that has an initial investment of \$250,000 and forecasts that it would generate revenue for the next five years. Here's how the company could calculate the ARR:

- Initial investment: \$250,000
- Expected revenue per year: \$70,000
- Time frame: 5 years
- ARR calculation: $\$70,000$ (annual revenue) / $\$250,000$ (initial cost)
- ARR = 0.28 or 28%

QUESTION NO 02

Describe the different types of financial instruments. Select short and long term financial asset.

Answer to the question no 02

Financial Instrument

International Accounting Standards define a financial instrument as "any contract that gives rise to a financial asset of one entity and a financial liability or equity instrument of another entity". In other words, financial instruments normally involve obligations on one party (like a commitment to make specific payments), and benefits for the other party (like the right to receive specific payments, or evidence of ownership in a company).

Financial instruments can normally be traded among parties, making them less risky to hold (as you are able to sell them if you subsequently need the money) and creating the possibility of making gains and losses on such trades.

The Different Types of Financial Instruments

Financial instruments can be classified in many different ways. In this article we will put them into two different types of financial instruments: **cash instruments** and **derivative instruments**. In the following sections, we will examine the different classifications of financial instruments and look at some examples.

Cash Financial Instruments

Cash financial instruments are typically generated, or issued, by organization (mostly governments and corporates) in order to raise capital. In this context, those organization are often referred to as issuers.

The prices for cash instruments are, either, set by the issuer (after advice from financial professionals), or arrived at by negotiation between the issuer and investors, who typically buy financial instruments on the expectation of making a profit .

Once issued and sold, the holders (traders and investors) can trade them openly in the financial markets, at a price set by supply and demand.

Below, we describe the main cash types of financial instruments.

Stocks and Shares

As the name implies, a share represents a share of ownership in a company. If a company issues 100 shares and you buy 1 of them, you own 1/100th, or 1%, of the company. From that point on, until you sell the share, you will be entitled to 1% of any dividends paid by that company, 1% of the votes at shareholder meetings, etc

This last point is a simplification, as companies sometimes have multiple share classes, with each class having different rights assigned to them.

Bonds

A bond is like an IOU, a certificate that the issuer (or borrower) gives an investor in return for some cash. In the case of a bond, the document will specify the terms and conditions, including the size and frequency of the coupon (or interest) payments and the date when the bond has to be repaid; called the maturity date.

Failing to pay coupons on time, or to repay the bonds on maturity, exposes the issuer to a risk of being put into default by the bond holders.

As governments do not issue shares, bonds are the “go to” financial instrument that governments rely on to raise money from investors. At any one time there will be trillions of dollars of government bonds in circulation.

Loans

Loans are made by banks and other credit institutions to organization such as companies, sovereign governments, or government agencies. From the borrowers’ point of view, loans look fairly similar to bonds but because there are fewer parties involved (normally only one bank, sometimes a handful) they are much easier and quicker to negotiate and document than bonds, which could have thousands of investors involved.

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Convertible Bonds

A convertible bond, or just convertible, is a bond which will either be repaid or converted into shares at a date in the future. Convertible bonds, therefore, look like a bond for the first part of their life, then they are either repaid or converted into shares for the second part of their life.

The terms for convertible bonds will define the size and frequency of coupon payments (if any); and the terms and the date for repayment or conversion .

Instead of a specific date, convertible bonds often convert to equity on a “trigger” event, the most common one being the issue and sale of new shares by the company.

Convertible Loans

A convertible loan is a loan which will either be repaid or convert into equity at a date in the future. The terms for convertible loans will determine the size and frequency of interest payments (if any); and the terms and the date for repayment or conversion.

As with convertible bonds, instead of a specific date, the loan often converts to equity when a “trigger” event takes place.

Derivative Financial Instruments

As the name suggests, derivative financial instruments, or simply derivatives, derive their value from something else. That something else is referred to as the underlying asset, or simply the underlying.

The most common underlying assets are shares, bonds, indices (like the S&P 500), interest rates, commodities (like coffee or oil) and currency pairs.

Different types of derivative financial instruments have different characteristics, but they have two things in common that make them popular with traders and investors.

Firstly, a small fee often allows the derivative holder to take a large position in the markets. In other words, they offer the opportunity for traders to leverage their trades, magnifying the potential gains or losses.

Secondly, derivatives make it easy not only to go long, or buy, an underlying asset when you think the price will go up; but also to go short, or sell, an underlying asset when you think the price is likely to fall.

Below, we take a look at the most common derivative types of financial instruments.

Options

Owning an option, gives you the option, but not the obligation, to buy (or to sell) the underlying asset at a specific price, known as the strike price.

Options that give you the right to buy the underlying asset are sometimes referred to as “calls” and those that give you the right to sell as “puts”.

When an option holder decides to go ahead and buy (or sell) the underlying, they are said to exercise the option.

Every option has an expiration date. If the holder does not exercise the option before that date then the option ceases to exist and the holder loses the fee paid to acquire it. This is quite common as options are only exercised when they are likely to make a profit for the option holder.

Futures

Futures work in the same way as options, except that they don't give you an option but an obligation. In other words, the holder does not have a choice and the future has to be exercised on or before the maturity date; whether or not the transaction will work in favour of the holder of the future.

CFDs

Contracts For Difference (CFDs) are an agreement, or contract, made between two parties to exchange the difference in the price of an asset from when the contract starts to when it ends.

Like other derivatives, CFDs can be used to speculate on rising and falling prices. However, unlike the other derivative products listed above, CFDs are purely speculative, the underlying asset will never change hands at the end of the contract.

Warrants

Warrants tend to work in exactly the same way as share options, the main difference being that they are issued by companies themselves and sold by them in order to raise capital.

Financial Asset

A financial asset is a liquid asset that gets its value from a contractual right or ownership claim. Cash, stocks, bonds, mutual funds, and bank deposits are all examples of financial assets. Unlike land, property, commodities, or other tangible physical assets, financial assets do not

necessarily have inherent physical worth or even a physical form. Rather, their value reflects factors of supply and demand in the marketplace in which they trade, as well as the degree of risk they carry.

Long Term Finance

Definition

Long-term finance can be defined as any financial instrument with maturity exceeding one year (such as bank loans, bonds, leasing and other forms of debt finance), and public and private equity instruments. Maturity refers to the length of time between origination of a financial claim (loan, bond, or other financial instrument) and the final payment date, at which point the remaining principal and interest are due to be paid. Equity, which has no final repayment date of a principal, can be seen as an instrument with nonfinite maturity. The one year cut-off maturity corresponds to the definition of fixed investment in national accounts. The Group of 20, by comparison, uses a maturity of five years more adapted to investment horizons in financial markets (G-20 2013). Depending on data availability and the focus, the report uses one of these two definitions to characterize the extent of long-term finance. Moreover, because there is no consensus on the precise definition of long-term finance, wherever possible, rather than use a specific definition of long-term finance, the report provides granular data showing as many maturity buckets and comparisons as possible.

Long-Term Financing

Long-term financing is usually needed for acquiring new equipment, R&D, cash flow enhancement, and company expansion. Some of the major methods for long-term financing are discussed below.

Equity Financing

Equity financing includes preferred stocks and common stocks. This method is less risky in respect to cash flow commitments. However, equity financing often results in dissolution of share ownership and it also decreases earnings.

The cost associated with equity is generally higher than the cost associated with debt, which is again a deductible expense. Therefore, equity financing can also result in an enhanced hurdle rate that may cancel any reduction in the cash flow risk.

Corporate Bond

A corporate bond is a special kind of bond issued by any corporation to collect money effectively in an aim to expand its business. This term is usually used for long-term debt instruments that generally have a maturity date after one year after their issue date at the minimum.

Some corporate bonds may have an associated call option that permits the issuer to redeem it before it reaches the maturity. All other types of bonds that are known as **convertible bonds** that offer investors the option to convert the bond to equity.

Capital Notes

Capital notes are a type of convertible security that are exercisable into shares. They are one type of equity vehicle. Capital notes resemble warrants, except the fact that they usually don't have the expiry date or an exercise price. That is why the entire consideration the company aims to receive, for the future issuance of the shares, is generally paid at the time of issuance of capital notes.

Many times, capital notes are issued with a debt-for-equity swap restructuring. Instead of offering the shares (that replace debt) in the present, the company provides its creditors with convertible securities – the capital notes – and hence the dilution occurs later.

Short-Term Financing

Short-term financing with a time duration of up to one year is used to help corporations increase inventory orders, payrolls, and daily supplies. Short-term financing can be done using the following financial instruments –

Commercial Paper

Commercial Paper is an unsecured promissory note with a pre-noted maturity time of 1 to 364 days in the global money market. Originally, it is issued by large corporations to raise money to meet the short-term debt obligations.

It is backed by the bank that issues it or by the corporation that promises to pay the face value on maturity. Firms with excellent credit ratings can sell their commercial papers at a good price.

Asset-backed commercial paper (ABCP) is collateralized by other financial assets. ABCP is a very short-term instrument with 1 and 180 days' maturity from issuance. ACBCP is typically issued by a bank or other financial institution.

Promissory Note

It is a negotiable instrument where the maker or issuer makes an issue-less promise in writing to pay back a pre-decided sum of money to the payee at a fixed maturity date or on demand of the payee, under specific terms.

Asset-based Loan

It is a type of loan, which is often short term, and is secured by a company's assets. Real estate, accounts receivable (A/R), inventory and equipment are the most common assets used to back

the loan. The given loan is either backed by a single category of assets or by a combination of assets.

Repurchase Agreements

Repurchase agreements are extremely short-term loans. They usually have a maturity of less than two weeks and most frequently they have a maturity of just one day! Repurchase agreements are arranged by selling securities with an agreement to purchase them back at a fixed cost on a given date.

Letter of Credit

A financial institution or a similar party issues this document to a seller of goods or services. The seller provides that the issuer will definitely pay the seller for goods or services delivered to a third-party buyer.

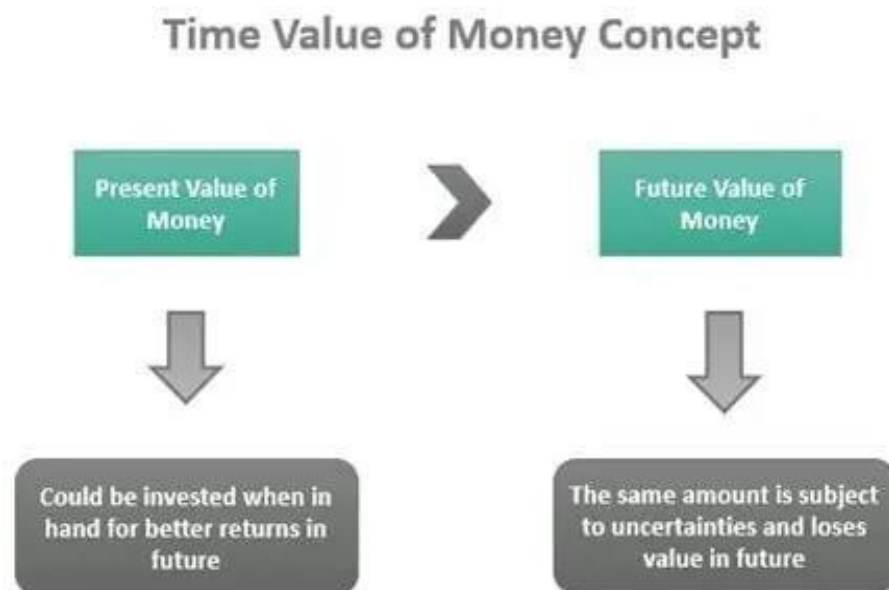
The issuer then seeks reimbursement to be met by the buyer or by the buyer's bank. The document is in fact a guarantee offered to the seller that it will be paid on time by the issuer of the letter of credit, even if the buyer fails to pay.

QUESTION NO 03

Describe the concept of time value of money? What are the techniques used in time value of money?

Answer to the question no 03

Time Value of Money (TVM) is a fundamental financial concept, stating that the current value of money is higher than its future value, given its potential to earn in the years to come. Thus, it suggests that a sum of money in hand is greater in value than the same sum of money received in the next couple of years.



Also referred to as the present discounted value, TVM is determined by its ability to yield returns in terms of its future value. A person having the money in hand can invest it for better returns in the future. On the other hand, the same amount received a year after, it loses its value.

Time Value of Money comprises one of the most significant concepts in finance. The idea focuses on identifying the real value of cash flows expected in the future due to the business or individual investment decisions made from time to time.

For example, A wins a lottery of \$1,000 and has two options to either take a lump sum right at the moment or receive the same after a year or two. It is obvious for the winner to choose the first option as the winner can invest that money and receive \$1,200 or more in the next two years. But, on the other hand, if A chooses to go otherwise, it will be the same \$1,000 even after two years.

TVM is an important factor in determining the purchasing power, and hence it is considered an important concept in inflation. TVM is hugely affected during inflation as the latter hampers the purchasing power of money, leading to the loss of its value.

Formula

The **Time Value of Money formula** is expressed below:

$$FV = PV * \left(1 + \frac{i}{n}\right)^{n*t}$$

Or,

$$PV = FV / \left(1 + \frac{i}{n}\right)^{n*t}$$

Here,

- PV = Present value of money
- FV = Future value of money
- i = Rate of interest or current yield on similar investment
- t = No. of years
- n = No. of compounding periods of interest each year

Example

Let us understand the TVM calculation through the following Time Value of Money example:

Mario purchases a stock expected to pay dividends of \$20 (Div 1) next year and \$21.6 (Div 2) the following year. As he receives the second dividend, he plans to sell the stock for \$333.3. What is the intrinsic value of this stock if the required return is 15%?

To make sure the required return is 15%, Mario attempts to find out the stock's intrinsic value.

First, the investor calculates the present value of Dividends for Year 1 and Year 2.

Using the above formula, he gets,

- Present Value (Year 1) = \$20 / ((1.15) ^ 1)
- Present Value (Year 2) = \$20 / ((1.15) ^ 2)
- In this example, they come out to be \$17.4 and \$16.3, respectively, for 1st and 2nd-year dividends.

Secondly, he computes the present value of future selling price after two years.

$$PV (\text{Selling Price}) = \$333.3 / (1.15^2)$$

$$= 252.0$$

Now, Mario adds the present value of dividends and the present value of selling price to get the intrinsic value of the stocks

$$\text{Present Value (Year 1)} + \text{Present Value (Year 2)} + \text{Present Value (Selling Price)}$$

$$= \$17.4 + \$16.3 + \$252.0$$

$$= \$285.8$$

	Year 0	Year 1	Year 2
Dividend payments	-	\$20.0	\$21.6
PV (Dividends) @ 15%		\$17.4	\$16.3
Stock Price			\$333.3
PV (Stock) @ 15%			=H17/(1+0.15)^2
Intrinsic Value	\$0.0	\$17.4	\$268.4
Total Intrinsic Value	\$285.8		

Five components of the time value of money

Five components of the time value of money are.

- Rate of interest
- Time period(n)
- Present value PV
- Future value FV
- installments(PMT)

Interest rate(i)

Interest rate is the rate of return received during the lifetime of an investment.

Time period (n)

It refers to the number of time periods for which we want to calculate a sum's present or future value. These time periods can be annual, semi-annually, weekly, monthly, quarterly, etc.

Present value. (PV)

We obtain the amount by applying a discounting rate on the future value of any cash flow.

Future value (FV)

We obtain the amount of money by applying a compounding rate on the present value of any cash flow.

Installments (PMT)

Installments represent the payments to be paid periodically or received during each period. Therefore, the value is positive when payments are received and becomes negative when payments are made.

QUESTION NO 04

Define cash-flow statement. Explain steps of cash flow statement.

Answer to the question no 04

A cash flow statement may go by a few different names — CSF, statement of cash flow, SCF, or consolidated statement of cash flows — but each name represents the same thing: a financial statement where a company's operating, investing, and financing activities are reported in terms of incoming and outgoing money.

Cash moves into and out of a business for various reasons, sometimes unrelated to the direct sale of products, goods, or services. The *cash* on these financial statements includes current assets, like money in checking and savings accounts, and cash equivalents, like short-term investments.

Cash flow statements explain how the company manages this cash. For example, a CSF can show if a company is taking on excess financing to fund operations but isn't generating enough cash to support those debts.

People and groups interested in cash flow statements include:

- Accounting personnel, who need to know whether the organization will be able to cover payroll and other immediate expenses
- Potential lenders or creditors, who want a clear picture of a company's ability to repay
- Potential investors, who need to judge whether the company is financially sound
- Potential employees or contractors, who need to know whether the company will be able to afford compensation
- Company Directors, who are responsible for the governance of the company, and are responsible for ensuring that the company does not trade while insolvent
- Shareholders of the company.
-

International Accounting Standard 3 specifies the cash flows and adjustments to be included under each of the major activity categories.

Operating activities

Operating activities include the production, sales and delivery of the company's product as well as collecting payment from its customers. This could include purchasing raw materials, building inventory, advertising, and shipping the product.

Operating cash flows include:

- Receipts for the sale of loans, debt or equity instruments in a trading portfolio
- Interest received on loans
- Payments to suppliers for goods and services
- Payments to employees or on behalf of employees
- Interest payments (alternatively, this can be reported under financing activities in IAS 3)
- Purchases of merchandise

Items which are added back to (or subtracted from, as appropriate) net income (which is found on the Income Statement) to arrive at cash flows from operations generally include:

- Depreciation (loss of tangible asset value over time)
- Deferred tax

- Amortization (loss of intangible asset value over time)
- Any gains or losses associated with the sale of a non-current asset, because associated cash flows do not belong in the operating section (unrealized gains/losses are also added back from the income statement)
- Dividends received general reserves

Investing activities

Examples of investing activities are:

- Purchase or sale of an asset
- Loans made to suppliers
- Payments related to mergers and acquisitions

Financing activities

Financing activities include inflows and outflows of cash between investors and the company, such as:

- Dividends paid
- Sale or repurchase of the company's stock
- Net borrowings
- Repayment of debt principal, including capital leases
- Other activities which impact the company's long-term liabilities and equity

How to Prepare a Cash Flow Statement

Creating a cash flow statement is a four-step process:

1. Calculate Operating Activities Cash Flows

Accountants have two methods to choose from when calculating operating cash flows: direct or indirect cash flows.

Direct Method

The direct cash flows approach involves adding all the cash the company made or paid for the reporting period. This includes money paid to suppliers, salary payments, and cash from selling products or services. Businesses that use the cash basis of accounting typically use the direct method. In cash basis accounting, money is only counted when it is actually received or spent by the business. The opposite of this is the accrual basis of accounting which counts cash if earned or expensed, even if those transactions have not been completely processed.

Indirect Method

The indirect cash flows approach involves using the company's net income and adjusting it based on non-cash transactions. For example, if the balance of accounts receivable increases, that increase is revenue but not cash because the money has not been received yet.

Some accounts must be added to net income for an accurate CFS. For instance, depreciation and amortization are subtracted from revenue to get net income. These are not cash transactions, though, even if they affect the company's overall profits. Cash flows are only explicit additions or subtractions to the company's cash balances.

Choosing Which Method to Use

Although the indirect cash flow approach may seem more complicated, it is the most commonly used approach. This is because accountants can easily find most of the adjustments to net income on the company's balance sheet. On the other hand, the direct method is more time-consuming and has higher chances of error if a receipt is missing or transactions are inaccurate.

2. Calculate Investing Cash Flows

Calculating investing cash flows involves tallying up any cash spent or generated from buying property, selling real estate, investing in office equipment, or acquiring a business. These cash flows only include transactions completed with free cash or money the company has on hand to spend. Investing cash flows do not include transactions that use financing or debt.

3. Calculate Cash Flows from Financing Activities

When calculating financing cash flows, accountants should include debt and equity financing — money used to fund the business and pay back borrowed funds. U.S.-based accountants who adhere to generally accepted accounting principles (GAAP) should list shareholder dividends in the financing activities section. However, international accountants who follow international financial reporting standards (IFRS) should include dividends as part of operating activities instead.

4. Calculate Ending Balance

Each section of the cash flow statement should have a total balance — total cash flows for operating activities, investing, and financing. At the end of the statement, these totals are combined to determine the company's total cash flow balance for the period. A positive cash flow means the company had more cash coming in than it spent. On the other hand, a negative balance suggests the company spent more than it generated.

