Assignment - 4

Part - A

1) The term stock price refers to the current price that a share of stock is trading for on the market.

2) EMH was developed by Eugane Fama, who stated that the prices of all securities are completely fair and reflect an asset's intrinsic value at any given time.

3) Capital Asset Pricing Model (CAPM) describes the relationship between systematic risk and expected return for assets, particularly stocks.

4) Arbitrage pricing theory is a multi-factor asset pricing model based on the idea that an asset's return can be predicted using the linear relationship b/w the asset's expected return and a number of macroeconomic variables.

5) An option is a future market

5) An option is a contract that allows an investor to buy or sell an underlying instrument like a security at a predetermined price

over a certain period of time

6) A futures market is an auction market in which participants buy or sell commodity for delivery on future date.

7) A dividend is a distribution of some of company's earnings to a class of its shareholders.

Part-B

1) Assumptions of CAPM model :-

1) Risk averse investors

2) Maximising the utility of terminal wealth.

3) choice on the basis of risk and return

4) Similar expectations of risk and return.

5) Identical time horizon

6) Free access to all available information.

7) There is risk-free asset and there is no restriction on borrowing and lending at the risk free rate.

8) There are no taxes and transaction costs.

9) Total availability of assets is fixed and assets are marketable and divisible.

Formula :-

$$E(R_i) = R_f + B_i (E(R_m) - R_f)$$

where,

$E(R_i)$ = Capital asset expected return.

R_f = risk-free rate of interest.

B_i = Sensitivity

$E(R_m)$ = expected return of the market.

2) Arbitrage Pricing Theory :-

Arbitrage pricing theory (APT) is a multi factor asset pricing model based on the idea that an asset's returns can be predicted using the linear relationship between the asset's expected return and a number of macroeconomic variables that capture systematic risk. It is a useful tool for analysing portfolios for a value investing perspective, in order to ~~satisfy~~ identify securities that may be temporarily mispriced.

Formula for APT model :-

$$E(R)_i = E(R)_z + E(I) - E(R)_z \times \beta_n$$

& where,

$E(R)_i$ = Expected return on the asset.

R_z = Risk - free rate of return

β_n = Sensitivity of asset price to macro economic factor n.

E_i = Risk premium associated with factor i.

3) Stock Index futures :-

Stock index futures are legal agreements to buy or sell stocks on future date and at a specific price.

Stock - index futures offer the investor a medium for expressing an opinion on the general course of the market. In addition, these contracts can be used by portfolio managers in a variety of ways to alter the risk - return distribution of their stock portfolios.

4) Interest rate futures :-

An interest rate future is a futures contract with an underlying instrument that pays interest. The contract is an agreement between the buyer and seller for the future delivery of any interest - bearing asset. The interest rate futures contract allows the buyer and seller to lock in the price of the interest - bearing asset for a future date.

5) SWAP :

A SWAP in simple terms can be explained as a transaction to exchange one thing for another or 'barter'. In financial markets the two parties to a swap transaction contract to exchange cash flows. A swap is a custom tailored bilateral agreement in which cash flows are determined by applying a prearranged formula on a notional principal.

Types of swap :-

(i) Interest rate swap :-

where cash flows at a fixed rate of interest are exchanged for those referenced to a floating rate. An interest rate swap is a contractual agreement to exchange a series of cash flows.

(2) Currency swap :-

Where cash flows in one currency are exchanged for cash flows in another. A currency swap is contractually similar to an interest rate swap.

6) Active portfolio management :-

The investor who follows an active portfolio management strategy buys and sells stocks in an attempt to outperform a specific index. An actively managed investment fund has an individual portfolio manager, co-managers, or a team of managers all making investment decisions for the fund. The success of the fund depends on in-depth research, market forecasting, and the expertise of the management team.

Part -C

2) With active portfolio management, a fund manager will regularly explore new investment oppurtunities and engage in market activity in order to provide average returns.

Part -C

1) The Effecient Market Hypothesis, in the investment community, is one of the underlying reasons investors may choose a passive investing ~~sto~~ strategy. Although fans of index funds may not know it, EMH helps to explain the valid rationale of buying these passive mutual funds and exchange traded funds.

EMH essentially says that all known information about investment securities, such as stocks, is already factored into the prices of those securities. EMH does not require that investors be rational; it says that individual investors will act randomly, but as a whole the market is always right.

Defining the forms of EMH:-

There are three forms of EMH.

1) Weak form EMH:-

Suggests that all past information is priced into securities. Fundamental analysis of securities can provide an investor with information to produce returns above market averages in the short term, but there are no "patterns" that exist. Therefore, fundamental analysis does not provide long-term advantage and technical analysis will not work.

2) Semi-strong form EMH:-

Implies that neither fundamental analysis nor technical analysis can provide an advantage for an investor and that new information is instantly priced in to securities.

3) Strong form EMH:-

Says that all information, both public and private, is priced into stocks and that no investor can gain advantage over the market as a whole. Strong form

~~EMH~~ EMH does not say some investors or money managers are incapable of capturing abnormally high returns because that there are always outliers included in the averages.

2) Options :-

An option is a derivative contract that gives its owner the right to buy or sell securities at an agreed-upon price within a certain time period.

Futures :-

Futures represent an agreement to buy or sell a specific quantity of a stock, security or commodity at a set price on a specified date in the future.

Types of options :-

(i) call option :-

A call option is a type of options contract which gives the call owner the right, but not the obligation to buy a security or any financial instrument at a specified price within a specified time frame.

To buy a call option one needs to pay the price in the form of an option premium. As mentioned, it is upon the discretion of the owner on whether he wants to exercise this option.

Put option:-

Put options give the option holder the right to sell an underlying security at a specific strike price within the expiration date. This lets investors lock a minimum price for selling a certain security. Here too the option holder is under no obligation to exercise the right.

Types of futures:-

1) Stock Index futures:-

Stock index futures are legal agreements to buy or sell stocks on a future date and at a specific price.

Stock index futures trade at different times of the day, even after the traditional markets have closed.

2) Interest rate futures :-

An interest rate future is a futures contract with an underlying instrument that pays interest. The contract is an agreement between the buyer and seller for the future delivery of any interest bearing asset.

3) Dividend :-

A dividend is a distribution of profits by a corporation to its shareholders.

Types of dividend :-

1) cash dividend :-

cash dividend is the most popular form of dividend payout. In this, company issues the dividend to all shareholders where the money is deposited in the bank accounts to shareholders.

2) Stock dividend :-

If any company issues additional shares to common shareholder without any consideration then the action becomes stock dividend.

3) property dividend :-

Any company can issue any non-monetary dividend to its shareholders. The issued property dividend would be recorded against the current market price of the asset distributed.

4) Scrip dividend :-

When any Company doesnot have enough funds to pay dividend then it may choose to pay dividend in the form of promissory note to pay the shareholders at a later date.

5) Liquidating dividend :-

When the board of company thinks of returning the original capital invested by the shareholders then it is known as the liquidating dividend. This may happen due to the fact the company intends to wrap up the business.

Factors affecting dividend :-

1) stability of earnings

2) Financing policy of the company.

3) Liquidity of funds.

4) Policy of competitive concerns.

5) Debt obligations

6) Ability to borrow.

7) Growth needs of the company.

8) Profit rate.

9) legal requirements.

10) Tax position of shareholders.

11) corporate taxation policy.

12) Effect of trade cycle.