**Q1:The Difference Between Technical Analysis And Fundamental Analysis**

**Fundamental analysis and technical analysis, the major schools of thought when it comes to approaching the markets, are at opposite ends of the spectrum. Both methods are used for researching and forecasting future trends in stock prices, and like any investment strategy or philosophy, both have their advocates and adversaries.**

**Fundamental analysis is a method of evaluating securities by attempting to measure intrinsic value a stock. Fundamental analysts study everything from the overall economy and industry conditions to the financial condition and management of companies. earnings, expenses, assets and liabilities are all important characteristics to fundamental analysts.**

**Technical analysis differs from fundamental analysis in that the stock's price and volume are the only inputs. The core assumption is that all known fundamentals are factored into price; thus, there is no need to pay close attention to them. Technical analysts do not attempt to measure a security's intrinsic value, but instead use stock charts to identify patterns and trends that suggest what a stock will do in the future.**

**Q4:**

**2010:**

 **PE= MARKET VALUE PER SHARE÷EPS**

**PE= 12÷1.20= (10).**

**2011:**

**PE= 14÷1.30= (10.76).**

**2012:**

**PE= 17÷1.50= (11.3).**

**2013:**

**PE= 19÷1.60= (11.875).**

**2014:**

**PE= 20÷1.80= (11.11).**

**2015:**

**PE= 25÷1.90= (13.15).**

**Q5:**

**SALES: 30,000,000**

**TOTAL ASSETS: 44,000,000**

**SHARE HOLDER EQUITY: 21,500,000**

**BOOK VALUE PER SHARE: 15.46**

**NET INCOME: 6,230,000**

**EPS= ROE×BOOK VALUE**

**ROE= ROA×LEVERAGE**

**ROA= (NET INCOME÷SALES)×(SALES×TOTAL ASSETS)**

**ROA= (6,230,000÷30,000,000)×(30,000,000×44,000,000)**

**ROA= (0.206)×(0.681)**

**ROA= 0.14159**

**LEVERAGE= TOTAL ASSETS÷SHARE HOLDER’S EQUITY**

**LEVERAGE= 44,000,000÷21,500,000**

**LEVERAGE= 2.04651**

**ROE= 0.14159×2.04651**

**ROE= 0.289**

**EPS= 0.289×15.46**

**EPS=(4.479)**

**Q7:**

**ROA= NET PROFIT MARGIN×TURNOVER**

**NET PROFIT MARGIN= NET PROFIT AFTER TAX÷SAKES**

**TURNOVER= SALES÷TOTAL ASSETS**

**2008:**

**ROA= (232÷5472)×(5472×2565)**

**ROA= 0.0904**

**2009:**

**ROA (256÷5960)×(5960×2978)**

**ROA= 0.08596373**

**2010:**

**ROA= (255÷6601)×(6601÷3103)**

**ROA= 0.1107**

**2011:**

**ROA=(221÷8351)×(8351÷3861)**

**ROA= 0.0572**

**2012:**

**ROA= (289÷8256)×(8256÷4310)**

**ROA= 0.0670**

**ROE= ROA×LEVERAGE**

**LEVERAGE= TOTAL ASSETS÷ SGARE HOLDER’S EQUITY**

**2008:**

**LEVERAGE= 2565÷1321**

**LEVERAGE= 1.941**

**ROE= .904×1.941**

**ROE= 1.7568**

**2009:**

**LEVERAGE= 2978÷1480**

**LEVERAGE= 2.0121**

**ROE= .08596×2.0121**

**ROE= .1729**

**2010:**

**LEVERAGE= 3103÷1610**

**LEVERAGE= 1.9273**

**ROE= .11072×1.9273**

**ROE= .2134**

**2011:**

**LEVERAGE= 3861÷1626**

**LEVERAGE= 2.3745**

**ROE= .05723×2.3745**

**ROE= .13591**

**2012:**

**LEVERAGE= 4310÷1872**

**LEVERAGE= 2.3023**

**ROE= .0670×2.3023**

**ROE= .1543**

**Q2: What Is the Dow Theory?**

**The Dow theory is a financial theory that says the market is in an upward trend if one of its averages (i.e. industrials or transportation) advances above a previous important high and is accompanied or followed by a similar advance in the other average. For example, if the Dow Jones Industrial Average (DJIA) climbs to an intermediate high, the Dow Jones Transportation Average (DJTA) is expected to follow suit within a reasonable period of time.**

**KEY TAKEAWAYS**

**The Dow Theory is a technical framework that predicts the market is in an upward trend if one of its averages advances above a previous important high, accompanied or followed by a similar advance in the other average.**

**The theory is predicated on the notion that the market discounts everything in a way consistent with the efficient markets hypothesis.**

**In such a paradigm, different market indices must confirm each other in terms of price action and volume patterns until trends reverse.**

**How the Dow Theory Works**

**There are six main components to the Dow theory.**

**1. The Market Discounts Everything**

**The Dow theory operates on the efficient markets hypothesis (EMH), which states that asset prices incorporate all available information. In other words, this approach is the antithesis of behavioral economics.**

**2. There Are Three Primary Kinds of Market Trends**

**Markets experience primary trends which last a year or more, such as a bull or bear market. Within these broader trends, they experience secondary trends, often working against the primary trend, such as a**[**pullback**](https://www.investopedia.com/terms/p/pullback.asp)**within a bull market or a rally within a bear market; these secondary trends last from three weeks to three months. Finally, there are minor trends lasting less than three weeks, which are largely noise.**

**3. Primary Trends Have Three Phases**

**A primary trend will pass through three phases, according to the Dow theory. In a bull market, these are the accumulation phase, the public participation (or big move) phase, and the excess phase. In a bear market, they are called the distribution phase, the public participation phase, and the panic (or despair) phase.**

**4. Indices Must Confirm Each Other**

**In order for a trend to be established, Dow postulated indices or market averages must confirm each other. This means that the signals that occur on one index must match or correspond with the signals on the other. If one index, such as the Dow Jones Industrial Average, is confirming a new primary uptrend, but another index remains in a primary downward trend, traders should not assume that a new trend has begun.**

**5. Volume Must Confirm the Trend**

**Volume should increase if the price is moving in the direction of the primary trend and decrease if it is moving against it. Low volume signals a weakness in the trend. For example, in a bull market, the volume should increase as the price is rising, and fall during secondary pullbacks. If in this example the volume picks up during a pullback, it could be a sign that the trend is reversing as more market participants turn bearish.**

**6. Trends Persist Until a Clear Reversal Occurs**

**Reversals in primary trends can be confused with secondary trends. It is difficult to determine whether an upswing in a bear market is a reversal or a short-lived rally to be followed by still lower lows, and the Dow theory advocates caution, insisting that a possible reversal be confirmed.**

**Q3: What Is Modern Portfolio Theory (MPT)?**

**Modern**[**portfolio**](https://www.investopedia.com/terms/p/portfolio.asp)**theory (MPT) is a theory on how risk-averse investors can construct portfolios to maximize**[**expected return**](https://www.investopedia.com/terms/e/expectedreturn.asp)**based on a given level of market risk.**[**Harry Markowitz**](https://www.investopedia.com/terms/h/harrymarkowitz.asp)**pioneered this theory in his paper "Portfolio Selection," which was published in the Journal of Finance in 1952. He was later awarded a Nobel Prize for his work on modern portfolio theory.**

**KEY TAKEAWAYS**

**Modern portfolio theory (MPT) is a theory on how risk-averse investors can construct portfolios to maximize expected return based on a given level of market risk.**

**MPT can also be used to construct a portfolio that minimizes risk for a given level of expected return.**

**Modern portfolio theory is very useful for investors trying to construct efficient portfolios using ETFs.**

**Investors who are more concerned with downside risk than variance might prefer post-modern portfolio theory (PMPT) to PMT.**

**Q6: I. Traditional Approach:**

**1. Dow Theory:**

**Charles Dow, the editor of Wall Street Journal, USA, presented this theory through a series of editorials. Dow formulated a hypothesis that the stock market does not move on a random basis but is influenced by three distinct cyclical trends that guide its direction. These are the primary movements, secondary reactions and minor movements.**

**a. Primary Movements:**

**These are the long term movements (from one to three years or more) of the prices of the securities on the stock exchange. Such movements can sway the entire market up or down.**

**b. Secondary Reactions:**

**These act as a restraining force on the primary movement. These are in opposite direction of primary movement and last only for a short while. These are also known as corrections.**

**c. Minor Movements:**

**These are the day to day fluctuations in the market. The minor movements are not significant and have no analytical value as they are of very short duration.**

**2. Random Walk Theory (Efficient Market Hypothesis):**

**According to Dow Theory, predictions can be made about the future behaviour of stock exchange prices by a careful study and analysis of the price trends. Contrary to this belief, as per the random walk theory, the behaviour of stock exchange prices is almost unpredictable and there is no relation between the present and future stock prices.**

**A change occurs in the price of a stock only because of certain changes in the company entire industry and economy. The information about these changes are absorbed in the stock market and the stock prices move up or down reflecting these changes immediately. Further change will occur only as a result of some other new piece of information.**

**The basic assumption in Random Walk Theory is that the information is immediately and fully spread so that all investors have full knowledge of the changes occurred in the economy or industry or company. There is an instant adjustment in the stock prices with this news.**

**Thus, the current stock price reflects all information in the market. Therefore, the price of a security two days ago will in no way help in predicting the price of that security two days later. It also assumes that stock markets are efficient. This is also the reason for this theory to be known as the ‘Efficient Market Hypothesis’.**

**3. Formula Plans:**

**Certain mechanical revision techniques or procedures have been developed to enable investors to benefit from price fluctuations in the market by buying stocks when prices are low and selling them when prices are high. These techniques are referred as formula plans. Formula plans are primarily oriented to achieve loss minimization rather than return maximization.**

**Example:**

**Let us assume that an investor starts with Rs. 20,000, investing Rs. 10,000 each in the aggressive portfolio and the defensive portfolio. Initial ratio is 1:1. He has predetermined the revision points as ± 20%. As share prices increase the value of the portfolio would rise. When the value of the stocks rises to Rs. 12,000, the ratio will change to 1.2:1, (i.e. 12,000:10,000). Shares worth Rs. 1,000 will be sold and the amount transferred to defensive portfolio by buying bonds. Thus, the value of both the portfolio becomes Rs.11, 000 and the ratio 1:1.**

**The same could be done in case if the share prices fall down. Funds could be transferred from the defensive portfolio to aggressive portfolio and the ratio can be maintained.**

**II. Modern Portfolio Theory:**

**Harry Markowitz Model Portfolio Management Theory:**

**This model was developed by Harry Markowitz in 1952. It analyzes various portfolios of a given number of securities and helps in selection of the best or the most efficient portfolio. Markowitz used mathematical programming and statistical analysis in order to arrange for the optimum allocation of assets within portfolio. Markowitz generated portfolios within a reward- risk context.**

**In other words, he considered the variance in the expected returns from investments and their relationship to each other in constructing portfolios. It is a theoretical framework for the analysis of risk return choices. Decisions are based on the concept of ‘Efficient Portfolios’.**

**Efficient Portfolios are those portfolios that yield the highest return for the level of risk accepted or alternatively, the smallest portfolio risk for a specified level of expected return. To build an efficient portfolio an expected return level is chosen, and assets are substituted until the portfolio combination with the smallest variance at the return level is found. As this process is repeated for other expected returns, a set of efficient portfolios is generated.**

**The Modern Portfolio Theory is based on following assumptions:**

**i. Investors estimate risk on the basis of variability of expected returns.**

**ii. Investors base their decisions solely on expected returns and variance (standard deviation) of returns only.**

**iii. For a given risk level, investors prefer high returns to lower returns. Similarly, for a given level of expected return, investors prefer less risk to more risk.**

**iv. Asset returns are normally distributed random variables.**

**v. Markets are efficient.**