

SFM

STRATEGIC FINANCIAL MANAGEMENT

Theory Booklet

By CA. Gaurav Jain

**100% Conceptual Coverage
With Live Trading Session**

**Complete Coverage of Study Material, Practice
Manual & Previous year Exam Questions**

Registration Office:

1/50, Lalita park, Laxmi Nagar – Delhi 92

Contact Details: 08860017983, 09654899608

Mail Id: gjainca@gmail.com

Web Site: www.sfmclasses.com

FB Page: <https://www.facebook.com/CaGauravJainSfmClasses>

CA Gaurav Jain SFM Classes

Congratulations

Shailee Chaudhary

Student of **CA Gaurav Jain**
For Scoring **88 Marks** in SFM **MAY 2015**

ROLL NO. 130814



Registrations Open at: 1/50, Lalita Park, Laxmi Nagar, Delhi-110092

Mob. # 9654899608, 8860017983

www.sfmclasses.com



CA/CMA FINAL-SFM

OUR RANK HOLDERS

Nov. 2015



Shreshtha Tayal
Roll No. 141557
Scoring 68 Marks in SFM
(AIR/CA/CS 20th)

May 2015



Shailee Chaudhary
AIR 1
Roll No. 130814
Scoring 88 Marks in SFM

Nov. 2014



Anish Gupta
AIR 22
Roll No. 130172
Scoring 68 Marks in SFM

Nov. 2015



Payal Bansal
AIR 27
Roll No. 137888
Scoring 70 Marks in SFM

Nov. 2014



Keshav Goel
AIR 18
Roll No. 132485
Scoring 83 Marks in SFM

Nov. 2013



Nishant Gupta
AIR 17
Roll No. 132871
Scoring 77 Marks in SFM

May 2014



Praveesh Khandelwal
Roll No. 135781
Scoring 85 Marks in SFM
(All India 2nd Highest Marks)



Harsh Garg
AIR 17
Roll No. 408483
Scoring 74 Marks in SFM



Kunal Somani
AIR 14
Roll No. 438272
Scoring 88 Marks in SFM



Prashu Goyal
AIR 36
Roll No. 400693
Scoring 81 Marks in SFM

For Batch details and SFM Summary Logon to www.sfmclasses.com
Registrations Open at : 1/50, Lalita Park, Laxmi Nagar, Delhi-110092
Mob. # 9654899608, 8860017983

BEST RESULT IN DELHI-NCR IN MAY 2016 EXAMS

More than 50 Exemptions



Lakshay Gupta
Roll No. 436484
Scoring 85 Marks in SFM



Vinod Gupta
Roll No. 426193
Scoring 81 Marks in SFM



Paras Khurana
Roll No. 443289
Scoring 79 Marks in SFM



Vidhu Sah
Roll No. 496735
Scoring 78 Marks in SFM



Swati Mundra
Roll No. 438473
Scoring 77 Marks in SFM



Divy Sethi
Roll No. 436333
Scoring 77 Marks in SFM



Ayush Agarwal
Roll No. 432545
Scoring 77 Marks in SFM



Tarun Surekha
Roll No. 508567
Scoring 75 Marks in SFM



Taraana Talwar
Roll No. 425330
Scoring 75 Marks in SFM



Rocky Jangid
Roll No. 492274
Scoring 73 Marks in SFM



Priyanka Mittal
Roll No. 439384
Scoring 73 Marks in SFM



Mayank Chaudhary
Roll No. 431990
Scoring 73 Marks in SFM



Ankit Jain
Roll No. 437116
Scoring 73 Marks in SFM



Rashika Jain
Roll No. 509933
Scoring 72 Marks in SFM



Niklesh Agarwal
Roll No. 509328
Scoring 71 Marks in SFM



Sejal Goel
Roll No. 458947
Scoring 71 Marks in SFM



Anuskh Kapoor
Roll No. 437438
Scoring 71 Marks in SFM



Deepak Singh
Roll No. 438660
Scoring 69 Marks in SFM



Akhil Madaan
Roll No. 509731
Scoring 69 Marks in SFM



Sumeet Jha
Roll No. 434634
Scoring 68 Marks in SFM



Sameer Kapoor
Roll No. 443674
Scoring 68 Marks in SFM



Madhu Pokharel
Roll No. 435639
Scoring 67 Marks in SFM



Amit Kr. Keshwani
Roll No. 439690
Scoring 66 Marks in SFM



Sumit Jain
Roll No. 439441
Scoring 65 Marks in SFM



Heena Mohla
Roll No. 439329
Scoring 65 Marks in SFM



Aradhana Shankar
Roll No. 437452
Scoring 65 Marks in SFM



Akshay Uppal
Roll No. 428608
Scoring 65 Marks in SFM



Sumit Pandia
Roll No. 418802
Scoring 63 Marks in SFM



Ankit Kumar
Roll No. 438304
Scoring 63 Marks in SFM



Nishant Grover
Roll No. 435237
Scoring 63 Marks in SFM



Manish Wahi
Roll No. 435125
Scoring 63 Marks in SFM



Madhvi Agarwal
Roll No. 437452
Scoring 61 Marks in SFM



Anurag Sehgal
Roll No. 496007
Scoring 61 Marks in SFM



Parth Agarwal
Roll No. 461640
Scoring 60 Marks in SFM



Abhishek Jain
Roll No. 439463
Scoring 60 Marks in SFM

Best Result in Delhi/NCR in a very short span of time



Ankur Ahuja
Roll No. 118704
Scoring 81 Marks in SFM



Shubham Bansal
Roll No. 120553
Scoring 77 Marks in SFM



Vipul Kohli
Roll No. 118771
Scoring 76 Marks in SFM



Samyak Jain
Roll No. 117279
Scoring 75 Marks in SFM



Nikhil Dangri
Roll No. 122731
Scoring 73 Marks in SFM



Akshay Gupta
Roll No. 542242
Scoring 73 Marks in SFM



Nitish Jain
Roll No. 127328
Scoring 72 Marks in SFM



Divya Goel
Roll No. 137946
Scoring 72 Marks in SFM



Bikash Thakur
Roll No. 128988
Scoring 72 Marks in SFM



Abhilasha Gupta
Roll No. 127225
Scoring 72 Marks in SFM



Preeti Gupta
Roll No. 123383
Scoring 70 Marks in SFM



Anish Munjal
Roll No. 121540
Scoring 70 Marks in SFM



Mudit Goel
Roll No. 121871
Scoring 70 Marks in SFM



Naman Jain
Roll No. 123182
Scoring 70 Marks in SFM



Shweta Banger
Roll No. 129643
Scoring 69 Marks in SFM



Asif
Roll No. 128643
Scoring 69 Marks in SFM



Ayushi Agarwal
Roll No. 123383
Scoring 69 Marks in SFM



Nitin Singhal
Roll No. 127341
Scoring 68 Marks in SFM



Kapil Manchanda
Roll No. 181015
Scoring 68 Marks in SFM



Arvind Kuliya
Roll No. 132719
Scoring 68 Marks in SFM



Ankur Gulati
Roll No. 123917
Scoring 68 Marks in SFM



Nishant Bhardwaj
Roll No. 115218
Scoring 68 Marks in SFM



Hemant Mittal
Roll No. 127438
Scoring 67 Marks in SFM



Ayushi Jain
Roll No. 129680
Scoring 67 Marks in SFM



Ankur Raheja
Roll No. 125015
Scoring 67 Marks in SFM



Markssishir Matenja
Roll No. 118875
Scoring 66 Marks in SFM



Alisha Aggarwal
Roll No. 120822
Scoring 65 Marks in SFM



Pooja Gupta
Roll No. 129143
Scoring 64 Marks in SFM



Tarun Mehrotra
Roll No. 129889
Scoring 64 Marks in SFM



Anand Kankani
Roll No. 129791
Scoring 63 Marks in SFM



Ratan Bhaduria
Roll No. 128331
Scoring 63 Marks in SFM



Rohit Rathi
Roll No. 128331
Scoring 62 Marks in SFM

For more details :
Ligon to
www.sfmclasses.com



Complete Your **CA/CMA FINAL-SFM** in 60 CLASSES



**CA GAURAV JAIN
SFM CLASSES**

CA. GAURAV JAIN

[FCA, B.COM(HONS), CFAL2]
(More than 8 years of Practical Experience in
Trading Equity Currency & Commodity
Derivatives in U.S. and Indian Markets)

**3 Rank Holders and More than
50 Exemptions in May 2016**

Main Features :

- 100% conceptual with live example in just 60 Classes.
- 100% question coverage.
- More than 500 questions and examples covered in class.
- Complete coverage of Study Material.
- Practice Manual & RTP.
- Revision of all concepts of all chapters through Power Point Presentation for your better remembrance.
- Stepwise Solution for your better understanding.
- Use of Chart and Diagram for clarity.
- Live Trading Session on Futures and Option Market.
- Comprehensive coverage of Theory.

For Batch details and SFM Summary Logon to www.sfmclasses.com

Registrations Open at : 1/50, Lalita Park, Laxmi Nagar, Delhi-110092

Mob. # 9654899608, 8860017983

Chapter 1 - Financial Policy And Corporate Strategy

QUESTION NO. 1

Write a short note on "Functions of Strategic Financial Management" ?

- ❖ Strategic Financial Management is the portfolio constituent of the corporate strategic plan- that embraces the optimum investment and financing decisions required to attain the overall specified objectives.
- ❖ In this connection, it is necessary to distinguish between strategic, tactical and operational financial planning. While strategy is a long-term course of action, tactics are intermediate plan, while operational are short-term functions. Senior management decides strategy, middle levels decides tactics and operational are looked after line management.
- ❖ Irrespective of the time horizon, the investment and financial decisions functions involve the following functions
 - Continual search for best investment opportunities
 - Selection of the best profitable opportunities
 - Determination of optimal mix of funds for the opportunities
 - Establishment of systems for internal controls
 - Analysis of results for future decision-making.

QUESTION NO. 2

Write a short note on 'Agency Theory' ?

According to this theory, strategic financial management is the function of our major components based on the mathematical concept of expected NPV (net present value) maximization, which are:

1. Investment decision
2. Dividend decision
3. Financing decision and
4. Portfolio decision.

The key decisions falling within the scope of financial strategy include the following:

1. **Financial decisions**: This deals with the mode of financing or mix of equity capital and debt capital. If it is possible to alter the total value of the company by alteration in the capital structure of the company, then an optimal financial mix would exist - where the market value of the company is maximized.
2. **Investment decision**: This involves the profitable utilization of firm's funds especially in long-term projects (capital projects). Because the future benefits associated with such projects are not known with certainty, investment decisions necessarily involve risk. The projects are therefore evaluated in relation to their expected return and risk. These are the factors that ultimately determine the market value of the company. To maximize the market value of the company, the financial manager will be interested in those projects with maximum returns and minimum risk. An understanding of cost of capital, capital structure and portfolio theory is a prerequisite here.
3. **Dividend decision**: Dividend decision determines the division of earnings between payments to shareholders and reinvestment in the company. Retained earnings are one of the most significant sources of funds for financing corporate growth, dividends constitute the

cash flows that accrue to shareholders. Although both growth and dividends are desirable, these goals are in conflict with each other. A higher dividend rate means less retained earnings and consequently slower rate of growth in future earnings and share prices. The finance manager must provide reasonable answer to this conflict.

4. Portfolio decision: Portfolio Analysis is a method of evaluating investments based on their contribution to the aggregate performance of the entire corporation rather than on the isolated characteristics of the investments themselves. When performing portfolio analysis, information is gathered about the individual investments available, and then chooses the projects that help to meet all of our goals in all of the years that are of concern. Portfolio theory, as first conceived in the 1950s by Dr. Harry Markowitz, provided a classic model for managing risk and reward. Markowitz realized that stocks and bonds interacted in a predictable manner (i.e., when one class of stock went down, others tended to go up), and by managing these interactions he could diversify risk. Strategic Portfolio Management takes the insights gained from portfolio analysis and integrates them into the decision making process of a corporation.

QUESTION NO. 3

Write a short note on "STRATEGY AT DIFFERENT HIERARCHY LEVELS" ?

❖ Strategies at different levels are the outcomes of different planning needs. The three Levels of an enterprise strategy are

1. Corporate level
2. Business unit level
3. Functional or departmental level

❖ Corporate Level Strategy

At the corporate level planners decide about the objective or objectives of the firm along with their priorities and based on objectives, decisions are taken on participation of the firm in different product fields. Basically a corporate strategy provides with a framework for attaining the corporate objectives under values and resource constraints, and internal and external realities. It is the corporate strategy that describes the interest in and competitive emphasis to be given to different businesses of the firm. It indicates the overall planning mode and propensity to take risk in the face of environmental uncertainties.

❖ Business Unit Level Strategy

It is the managerial plan for achieving the goal of the business unit. However, it should be consistent with the corporate strategy of the firm and should be drawn within the framework provided by the corporate planners. Given the overall competitive emphasis, business strategy specifies the product market power i.e. the way of competing in that particular business activity. It also addresses coordination and alignment issues covering internal functional activities. The two most important internal aspects of a business strategy are the identification of critical resources and the development of distinctive competence for translation into competitive advantage.

❖ Functional Level Strategy

It is the low level plan to carry out principal activities of a business. In this sense, functional strategy must be consistent with the business strategy, which in turn must be consistent with the corporate strategy. Thus strategic plans come down in a cascade fashion from the top to the

bottom level of planning pyramid and performances of functional strategies trickle up the line to give shape to the business performance and then to the corporate performance.

QUESTION NO. 4

Write a short note on "FINANCIAL PLANNING" ?

- ❖ Financial planning is the backbone of the business planning and corporate planning. It helps in defining the feasible area of operation for all types of activities and thereby defines the overall planning framework.
- ❖ Financial planning is a systematic approach whereby the financial planner helps the customer to maximize his existing financial resources by utilizing financial tools to achieve his financial goals.
- ❖ Financial planning is simple mathematics. There are 3 major components:
 - Financial Resources (FR)
 - Financial Tools (FT)
 - Financial Goals (FG)

Financial Planning: $FR + FT = FG$

- ❖ In other words, financial planning is the process of meeting your life goals through proper management of your finances.
- ❖ Life goals can include buying a home, saving for your children's education or planning for retirement.
- ❖ It is a process that consists of specific steps that help you to take a big-picture look at where you are financially. Using these steps you can work out where you are now, what you may need in the future and what you must do to reach your goals.
- ❖ Outcomes of the financial planning are the **financial objectives, financial decision-making and financial measures** for the evaluation of the corporate performance.
- ❖ **Financial objectives** are to be decided at the very outset so that rest of the decisions can be taken accordingly. The objectives need to be consistent with the corporate mission and corporate objectives. There is a general belief that profit maximization is the main financial objective. In reality it is not. Profit may be an important consideration but not its maximization. Profit maximization does not consider risk or uncertainty, whereas wealth maximization does.
- ❖ Let us consider two projects, A and B, and their projected earnings over the next 5 years, as shown below:

<u>Year</u>	<u>Product A</u>	<u>Product B</u>
1	10,000	11,000
2	10,000	11,000
3	10,000	11,000
4	10,000	11,000
5	10,000	11,000
	<u>50,000</u>	<u>55,000</u>

A profit maximization approach would favour project B over project A. However, if project B is more risky than project A, then the decision is not as straightforward as the figures seem to indicate. It is important to realize that a trade-off exists between risk and return.

QUESTION NO. 5

Write a short note on "SUSTAINABLE GROWTH" ?

- ❖ The concept of sustainable growth can be helpful for planning healthy corporate growth.
- ❖ This concept forces managers to consider the financial consequences of sales increases and to set sales growth goals that are consistent with the operating and financial policies of the firm.
- ❖ The sustainable growth rate (SGR) of a firm is the maximum rate of growth in sales that can be achieved, given the firm's profitability, asset utilization, and desired dividend payout and debt (financial leverage) ratios. Variables typically include the net profit margin on new and existing revenues; the asset turnover ratio, which is the ratio of sales revenues to total assets; the assets to beginning of period equity ratio; and the retention rate, which is defined as the fraction of earnings retained in the business.
- ❖ Sustainable growth models assume that the business wants to:
 - 1) maintain a target capital structure without issuing new equity;
 - 2) maintain a target dividend payment ratio; and
 - 3) increase sales as rapidly as market conditions allow.
- ❖ The sustainable growth rate is consistent with the observed evidence that most corporations are reluctant to issue new equity. If, however, the firm is willing to issue additional equity, there is in principle no financial constraint on its growth rate. Indeed, the sustainable growth rate formula is directly predicated on return on equity.

QUESTION NO. 6

Explain the Interface of Strategic Management and Financial Policy ?

The interface of strategic management and financial policy will be clearly understood if we appreciate the fact that the starting point of an organization is money and the end point of that organization is also money again. Offer of the organization is only a vehicle that links up the starting point and the end point. No organization can run the existing business and promote a new expansion project without a suitable internally mobilized financial base or both internally and externally mobilized financial base.

Sources of finance and capital structure are the most important dimensions of a strategic plan. The generation of funds may arise out of ownership capital and or borrowed capital. A company may issue equity shares and / or preference shares for mobilizing ownership capital.

Along with the mobilization of funds, policy makers should decide on the capital structure to indicate the desired mix of equity capital and debt capital. There are some norms for debt equity ratio. However this ratio in its ideal form varies from industry to industry. It also depends on the planning mode of the organization under study.

Another important dimension of strategic management and financial policy interface is the investment and fund allocation decisions. A planner has to frame policies for regulating investments in fixed assets and for restraining of current assets. Investment proposals mooted by different business units may be addition of a new product, increasing the level of operation of an existing product and cost reduction and efficient utilization of resources through a new approach and or closer monitoring of the different critical activities.

Now, given these three types of proposals a planner should evaluate each one of them by making within group comparison in the light of capital budgeting exercise.

Dividend policy is yet another area for making financial policy decisions affecting the strategic performance of the company. A close interface is needed to frame the policy to be beneficial for all. Dividend policy decision deals with the extent of earnings to be distributed as dividend and the extent of earnings to be retained for future expansion scheme of the firm.

It may be noted from the above discussions that financial policy of a company cannot be worked out in isolation of other functional policies. It has a wider appeal and closer link with the overall organizational performance and direction of growth. These policies being related to external awareness about the firm, specially the awareness of the investors about the firm, in respect of its internal performance. There is always a process of evaluation active in the minds of the current and future stake holders of the company. As a result preference and patronage for the company depends significantly on the financial policy framework. And hence attention of the corporate planners must be drawn while framing the financial policies not at a later stage but during the stage of corporate planning itself.

QUESTION NO. 7

Explain briefly, how financial policy is linked to strategic Management. (Nov 2009) (May 2010)

- ❖ The success of any business is measured in financial terms. Maximising value to the shareholders is the ultimate objective. For this to happen, at every stage of its operations including policy-making, the firm should be taking strategic steps with value-maximization objective. This is the basis of financial policy being linked to strategic management.
- ❖ The linkage can be clearly seen in respect of many business decisions. For example :
 - i. Manner of raising capital as source of finance and capital structure are the most important dimensions of strategic plan.
 - ii. Cut-off rate (opportunity cost of capital) for acceptance of investment decisions.
 - iii. Investment and fund allocation is another important dimension of interface of strategic management and financial policy.
 - iv. Foreign Exchange exposure and risk management.
 - v. Liquidity management
 - vi. A dividend policy decision deals with the extent of earnings to be distributed and a close interface is needed to frame the policy so that the policy should be beneficial for all.
 - vii. Issue of bonus share is another dimension involving the strategic decision.

Thus from above discussions it can be said that financial policy of a company cannot be worked out in isolation to other functional policies. It has a wider appeal and closer link with the overall organizational performance and direction of growth.

QUESTION NO. 8

Discuss the importance of strategic management in today's scenario?

Answer

Importance of Strategic Management

Strategic management intends to run an organization in a systematized fashion by developing a series of plans and policies known as strategic plans, functional policies, structural plans and operational plans. It is a systems approach, which is concerned with where the organization wants to reach and how the organization proposes to reach that position. Thus, strategic management is basically concerned with the futurity of the current decisions without ignoring the fact that uncertainty in the system is to be reduced, to the extent possible, through continuous review of the whole planning and implementation process. It is therefore necessary for an

organization interested in long run survival and command over the market, to go for strategic planning and the planning process must be holistic, periodic, futuristic, intellectual and creative with emphasis given on critical resources of the firm otherwise, the organization will fall in the traps of tunneled and myopic vision.

QUESTION NO. 9

Write a short note on Balancing Financial Goals vis-a-vis Sustainable Growth.

Answer

The concept of sustainable growth can be helpful for planning healthy corporate growth. This concept forces managers to consider the financial consequences of sales increases and to set sales growth goals that are consistent with the operating and financial policies of the firm. Often, a conflict can arise if growth objectives are not consistent with the value of the organization's sustainable growth. Question concerning right distribution of resources may take a difficult shape if we take into consideration the rightness not for the current stakeholders but for the future stakeholders also. To take an illustration, let us refer to fuel industry where resources are limited in quantity and a judicious use of resources is needed to cater to the need of the future customers along with the need of the present customers. One may have noticed the save fuel campaign, a demarketing campaign that deviates from the usual approach of sales growth strategy and preaches for conservation of fuel for their use across generation. This is an example of stable growth strategy adopted by the oil industry as a whole under resource constraints and the long run objective of survival over years.

Incremental growth strategy, profit strategy and pause strategy are other variants of stable growth strategy.

Sustainable growth is important to enterprise long-term development. Too fast or too slow growth will go against enterprise growth and development, so financial should play important role in enterprise development, adopt suitable financial policy initiative to make sure enterprise growth speed close to sustainable growth ratio and have sustainable healthy development. The sustainable growth rate (SGR), concept by Robert C. Higgins, of a firm is the maximum rate of growth in sales that can be achieved, given the firm's profitability, asset utilization, and desired dividend payout and debt (financial leverage) ratios. The sustainable growth rate is a measure of how much a firm can grow without borrowing more money. After the firm has passed this rate, it must borrow funds from another source to facilitate growth. Variables typically include the net profit margin on new and existing revenues; the asset turnover ratio, which is the ratio of sales revenues to total assets; the assets to beginning of period equity ratio; and the retention rate, which is defined as the fraction of earnings retained in the business.

SGR = ROE x (1- Dividend payment ratio)

Sustainable growth models assume that the business wants to: 1) maintain a target capital structure without issuing new equity; 2) maintain a target dividend payment ratio; and 3) increase sales as rapidly as market conditions allow. Since the asset to beginning of period equity ratio is constant and the firm's only source of new equity is retained earnings, sales and assets cannot grow any faster than the retained earnings plus the additional debt that the retained earnings can support. The sustainable growth rate is consistent with the observed evidence that most corporations are reluctant to issue new equity. If, however, the firm is willing to issue additional equity, there is in principle no financial constraint on its growth rate.

Chapter 2 - Project Planning and Capital Budgeting

QUESTION NO. 1

Write a short note on Project Feasibility ?

Project Feasibility is a test by which an investment is evaluated. There are three types of feasibilities evaluated for a project viz. (1) Market Feasibility (2) Technical Feasibility and (3) Financial Feasibility. For projects evaluated by government, economic and social feasibility is also considered.

Market Feasibility :

- ❖ For conducting market feasibility study, the type of proposed product is important.
- ❖ Products having high sales potential are less risky to invest in.
- ❖ Indicators of buyer behaviour in response to a new product have to be taken into account for estimating the potential demand.
- ❖ The market feasibility study for a product already selling in the market consists of :
 - a) **Economic Indicators:** A change in demand and a change in one or some economic indicators may take place simultaneously.
 - b) **Demand Estimation:** Projection of demand is most important step in project feasibility study. These include: (i) End-user profile (ii) Study of influencing factors (iii) Regional, national and export market potential (iv) Infra-structure facilities (v) Demand forecasting
 - c) **End-user profile:** A product may have different uses and end-use. Total demand is made up of different end-users. The end-users are also classified into government and non-government demand, urban and rural demand.
 - d) **Influencing Factors** - Demand for a product is a derived demand. Demand for fertilizer sales is dependent on monsoons while sale of steel and industrial growth are associated with each other.
 - e) **Market Potential** - Regional, national and export market potential of a product may be different. Study of national demand may not be adequate due to regional imbalances caused by several constraints. Assessment of export potential is another important exercise. Economic distance to which a product can be exported must be evaluated. Cost and quality aspects of goods must be compared with other potentially exporting countries. International relations, import and export barriers in countries, and other factors need to be understood.
 - f) **Infrastructure Facility** - It needs to be assessed properly. Exportability depends more on high cost of transportation.
 - g) **Demand Forecasting** - It is an important step in the assessment of demand potential. Growth in demand in past can be indicative of future demand.
 - h) **Supply Estimation:** Past trends of supply of goods can be studied and further extrapolated. Information regarding entry barrier is necessary. A long gestation period and a high capital to labour ratio may create a natural entry barrier. Government licensing policy, availability of required input like materials and skilled labour also cause entry on barrier. A product whose entry barrier is high is unlikely to find a sudden spur in supply, offering more comfortable position to existing players.
 - i) **Identification of Critical Success Factors:** For choice of location and to find the risk of a project, it is necessary to identify critical factors, which determine the success of project. Availability of raw material supply and cost of power, transportation facilities, supply of skilled manpower or other variables could be the critical success factors.
 - j) **Estimation of the Demand-Supply Gap** - Demand and supply estimates have to fine-tuned with new or changed factors and then compared with each other for determining the gap. The demand-supply gap is fruitful for a geographical territory. The forecast of demand and supply

may not be a single point forecast. A multiple point forecast gives the most adverse, most likely and most favourable forecast of demand and supply.

Technical Feasibility:

The factors considered are :

- 1) Availability of commercially viable technology and its alternatives.
- 2) Suitability of the technology to local environment and its usefulness is to be assessed by the quality of material, power, skilled labour, environmental conditions, water supply etc.
- 3) Technological innovation rate of the product.
- 4) Production processes.
- 5) Capacity utilization rate and its justification.
- 6) Availability of raw material and other resources e.g. power, gas, water, compressed air, labour etc.
- 7) Plant and equipment with fabrication facilities.
- 8) Feasible product mix with possibilities of joint and by-products.
- 9) Facilities for affluent disposal.

The commercial side of technical details has to be studied along with the technical aspects so that commercial viability of the technology can be evaluated.

Financial Feasibility:

Financial feasibility study requires detailed financial analysis based on certain assumptions, workings and calculations such as:

- 1) Projections for prices of products, cost of various resources for manufacturing goods, capacity utilization. The actual data of comparable projects are included in the estimates.
- 2) Period of estimation is determined on the basis of product life cycle, business cycle; period of debt funds etc. and the value of the project at the terminal period of estimation are forecasted.
- 3) Financing alternatives are considered and a choice of financing mix made with regard to cost of funds and repayment schedules.
- 4) Basic workings in different schedules like Interest and repayment schedule, working capital schedule, working capital loan, interest and repayment schedule, depreciation schedule for income tax purposes, depreciation schedule for the purpose of reporting under Companies Act, 1956 (if policy is different from income tax rules).
- 5) Financial statements prepared in the project feasibility report viz. profit and loss account, balance sheet and cash flow statements for the proposed project.
- 6) Financial indicators calculated from data available in various financial statements. Basic financial parameters used for judging the viability of the project are Debt service Coverage Ratio (DSCR), Net Present Value (NPV) or Internal Rate of Return (IRR), payback period, interest coverage ratio.

Interest coverage ratio indicates the safety and timely payment of interest to lenders of money.

Interest Coverage Ratio = $\frac{\text{PAT} + \text{Interest} + \text{Depreciation}}{\text{Interest}}$. However, it is not an important indicator of project viability.

Debt-service coverage ratio (DSCR) uses the same numerator as the interest coverage ratio, but it is compared with the interest payment and principal sum repayment in a year. This ratio is better than Interest Coverage Ratio since it shows the cash flows available for the interest as well as for principal repayment.

$$\text{DSCR} = \frac{\text{PAT} + \text{Interest} + \text{Depreciation}}{\text{Interest} + \text{Principal Loan Repayment}}$$
 An average DSCR of 1.5 is considered \good. It is the safety indicator for lenders of money.

QUESTION NO. 2

Write a short note on Social Cost Benefits Analysis ?

❖ **Meaning: Social Cost Benefit Analysis** is a systematic evaluation of an organisation's social performance as distinguished from its economic performance. Social Cost Benefits Analysis is an approach for evaluation of projects. It assesses gains/losses to society as a whole from the acceptance of a particular project.

❖ **Features**

- 1) It includes many economic activities having indirect effects on which there is no possibility of putting a market value.
- 2) If savings are inadequate; money going into investment is regarded more valuable than money going into current consumption.
- 3) Society values given quantum of additional consumption going to different sections of the population differently. So distributional considerations are important.
- 4) For society, taxes are transferred from the project in hand to government and does not involve real cost.
- 5) Relative valuation placed on future consumption compared to current consumption is different for the society. Also effect of perceived uncertainties may be different.
- 6) Society may want to discourage consumption of certain goods and promote that of others.
- 7) External effects exist on consumption side e.g. person getting inoculation against infectious disease will be conferring some benefit to society by preventing the spreading over of the disease.
- 8) Output from large projects has significant impact on the market for the good/services and neither pre project market price nor expected post project market price would be correct indicators of the social value of project output.

❖ **Techniques of Social Cost Benefits Analysis:**

Estimation of shadow prices form the core of social cost benefit methodology. Economic resources have been categorised into goods, services, labour, foreign exchange, shadow price of investment vis-a-vis consumption, shadow price of future consumption vis-a-vis present consumption , social rate of discount.

Goods & Services: Social gain/losses from outputs and inputs of a project are measured by the willingness of the consumers to pay for the goods.

Labour: Social cost of labour is lower than market wage because of massive un/under employment along with traditions, changes in life style etc. Removal of labour from farms should not cause reduction in agricultural output as other members work harder to offset the loss. Employing labour on non-farm activities is costless. Shadow wage is zero. Un/under employment is a seasonal phenomenon.

Foreign Exchange: Existence of extensive trade controls leads to official undervaluation of foreign exchange. Official exchange rate understates the benefit of exports and costs of imports in terms of domestic resources. An upward adjustment is necessary.

Social Rate of Discount: Market rate of interest does not reflect society's preference for current consumption over future consumption. Choice of social discount rate is based on value judgment about weights to be attached to the welfare of future generations compared to that of

present generations. This is treated as a parameter and computations are carried out for a number of values within a certain range. Final decision rests with the policy maker.

Shadow Price of Investment: Society as a whole gives importance to future generations than that accorded by private decision maker. Imperfections of capital markets lead to less than optimal total investment. Money devoted to investment in terms of immediate consumption is much more than money itself.

Few indicators of Social Desirability of a Project :

(a) Employment Potential Criterion; (b) Capital Output Ratio - that is the output per unit of capital; (c) Value Added Per Unit of capital; (d) Foreign Exchange Benefit Ratio, (e) Cost Benefit Ratio Criterion ;

Advantages of such an analysis may be the following

- a. It helps the Corporate Sector to keep track of its record as a Social Citizen. Being a good Social Citizen can be a marketing advantage. However, more importantly it can be pursued as an end in itself.
- b. Social benefits arising out of a project can be leveraged with the governments while negotiating for tax concessions and such other incentives for the project.

Limitations:

- ❖ Successful application depends upon reasonable accuracy and dependability of the underlying forecasts as well as assessment of intangibles.
- ❖ Technique does not indicate whether given project evaluated on socio-economic considerations is best choice to reach national goals or whether same resources if employed in another project would yield better results.
- ❖ Cost of evaluation by such technique could be enormous for smaller projects.
- ❖ Social Cost Benefit Analysis takes into consideration those aspects of social costs and benefits which can be quantified.

QUESTION NO. 3

What are the steps, advantages and disadvantages of Simulation Analysis?

or

What are the steps for simulation analysis ?

(May 2011) (4 marks)

- ❖ Monte Carlo simulation ties together sensitivities and probability distributions of came out of the work of first nuclear bomb and was so named because it was based on mathematics of Casino gambling. Fundamental appeal of this analysis is that it provides decision makers with a probability distribution of NPVs rather than a single point estimates of the expected NPV.
- ❖ This analysis starts with carrying out a simulation exercise to model the investment project. It involves identifying the key factors affecting the project and their inter relationships. It involves modelling of case flows to reveal the key factors influencing both cash receipt and payments and their inter relationship. In this analysis specify a range for a probability distribution of potential outcomes for each of model's assumptions.

❖ Steps For Simulation Analysis:

1. Modelling the project. The model shows the relationship of N.P.V. with parameters and exogenous variables.(Parameters are input variables specified by decision maker and held constant over all simulation runs. Exogenous variables are input variables, which are stochastic in nature and outside the control of the decision maker.
2. Specify values of parameters and probability distributions of exogenous variables.

3. Select a value at random from probability distribution of each of the exogenous variables.
4. Determine NPV corresponding to the randomly generated value of exogenous variables and pre-specified parameter variables.
5. Repeat steps (3) & (4) a large number of times to get a large number of simulated NPVs.
6. Plot frequency distribution of NPV

❖ **Advantages Of Simulation Analysis:**

1. Strength lies in Variability. It handle problems characterised by (a) numerous exogenous variables following any kind of distribution, (b) complex inter-relationships among parameters, exogenous variables. Such problems defy capabilities of analytical methods.
2. Compels decision maker to explicitly consider the inter-dependencies and uncertainties featuring the project.

❖ **Shortcomings Of Simulation Analysis:**

1. Difficult to model the project and specify probability distribution of exogenous variables.
2. Simulation is inherently imprecise. Provides rough approximation of probability distribution of NPV. Due to its imprecision, simulation probability distribution may be misleading when a tail of distribution is critical.
3. Realistic simulation model being likely to be complex would probably be constructed by management expert and not by the decision maker. Decision maker lacking understanding of the model may not use it.
4. Determine NPV in simulation run, with risk free discount rate.

QUESTION NO. 4

Write a short note on the following topics:

A. SENSITIVITY ANALYSIS:- (Also known as “What if ” Analysis)

- ❖ **Meaning** : **Sensitivity Analysis** enables managers to assess how responsive the NPV is to changes in the variables which are used to calculate it.

Example : Sensitivity Analysis answers QUESTION NO.s like,

- i. What happens to the Net Present Value if inflows are, say ₹ 50,000 than the expected ₹ 80,000?
- ii. What will happen to NPV if the economic life of the project is only 3 years rather than expected 5 years? ^Importance : It directs the management to pay maximum attention towards the factor where minimum percentage of adverse change causes maximum adverse effect.

- ❖ **Computation** : Sensitivity of a variable is calculated by using following relation : Sensitivity (%) = Change/ Base × 100

❖ **Procedure:**

- i. Setup relationship between the basic underlying factors (quantity sold, unit Sales Price, life of project etc.) & N.P.V. (Some other criterion of merit).
- ii. Estimate the range of variation and the most likely value of each of the basic underlying facto[₹]
- iii. Study the effect of N.P.V of variations in the basic variables (One factor is valued at a time.)

❖ **Advantages of Sensitivity Analysis**

Following are main advantages of Sensitivity Analysis

- i. **Critical issues:** This analysis identifies Critical issues involved.
- ii. **Simples:** This analysis is quite simple.
- iii. Forces management to identify underlying variables and their inter- relationship.
- iv. Shows how robust / vulnerable a project is to changes in underlying variables.
- v. Indicates the need for further work.. If N.P.V. and I.R.R. is highly sensitive-to changes in some variable, it is desirable to gather further information about the variable.

❖ **Disadvantage of Sensitivity Analysis**

Following are main disadvantages of Sensitivity Analysis

- i. **Assumption of Independence:** This analysis assumes that all variable are independent i.e. they are not related to each other, which is unlikely in real life.
- ii. **Ignore probability:** This analyse does not look to the probability of changes in the variables.
- iii. **Not so reliable:** This analysis provides information on the basis of which of which decisions can be made but does not point directly to the correct decision.

B. CAPITAL BUDGETING UNDER CAPITAL RATIONING

❖ **Meaning** : "Capital Rationing refers to a situation where a company cannot undertake all positive NPV projects it has identified because of shortage of capital ".

❖ **Reasons For Capital Rationing :**

External Factors : Under this the firm does not have funds & it also cannot raise them from financial markets. Some reasons can be : (i) Imperfections in capital markets (ii) Non-availability of market information (iii) Investor's attitude (iv) Firm's lack of credibility in market (v) High Flotation costs.

Internal Factors :Internal Capital Rationing arise due to the self-imposed restrictions imposed by management .Under this though the funds can be arranged but firm itself impose restrictions on investment expenditure . Some reasons can be :

(i) not to take additional burden of debt funds (ii) laying down a specified minimum rate of return on each project (iii) No further Equity Issue to prevent dilution of control, (iv) Divisional Budgets used to prevent any inefficiency or wastage of funds by them

❖ **Different Situations of Capital Rationing :**

1. **Single Period Capital Rationing** : Funds limitation is there only for one year. Thereafter , no Financial constraints.
2. **Multi Period Capital Rationing** : Funds limitation is there in more than one years.
3. **Divisible Projects** : These are the projects which can be accepted fully as well as in fractions. NPV is also adjusted to the same fraction as cash outflows.
4. **Indivisible Projects** :These are the projects which can only be accepted fully, not in fractions.

❖ **Ways of Resorting Capital Rationing** : There are various ways of resorting to capital rationing, some of which are:

1. **By Way of Retained Earnings** : A firm may put up a ceiling when it has been financing investment proposals only by way of retained earnings (ploughing back of profits). Since the

amount of capital expenditure in that situation cannot exceed the amount of retained earnings, it is said to be an example of capital rationing.

2. **By Way of Responsibility Accounting** : Capital Rationing may also be introduced by following the concept of 'responsibility accounting', whereby management may introduce capital rationing by authorising a particular department to make investment only upto a specified limit, beyond which the investment decisions are to be taken by higher-ups.
3. **By Making Full Utilization of Budget as Primary Consideration** : In Capital Rationing it may also be more desirable to accept several small investment proposals than a few large investment proposals so that there may be full utilisation of budgeted amount. This may result in accepting relatively less profitable investment proposals if full utilisation of budget is a primary consideration. Thus Capital Rationing does not always lead to optimum results.

C. SCENARIO ANALYSIS:

- a) Although sensitivity analysis is probably the most widely used risk analysis technique, it does have limitations. Therefore, we need to extend sensitivity analysis to deal with the probability distributions of the inputs. In addition, it would be useful to vary more than one variable at a time so we could see the combined effects of changes in the variables.
- b) Scenario analysis provides answer to these situations of extensions. This analysis brings in the probabilities of changes in key variables and also allows us to change more than one variable at a time.
- c) This analysis begins with base case or most likely set of values for the input variables. Then, go for worst case scenario (low unit sales, low sale price, high variable cost and so on) and best case scenario.
- d) In other words, scenario analysis answers the QUESTION NO. "How bad could the project look". Some enthusiastic managers can sometimes get carried away with the most likely outcomes and forget just what might happen if critical assumptions such as the state of the economy or competitors reaction are unrealistic. This analysis seek to establish 'worst and best' scenarios so that whole range of possible outcomes can be considered.
- e) Although, the analysis appears to be simple, but it contains four critical components:
 1. The first component involves determining the factors around which the scenarios will be built. These factors can range from the state of economy to the response of competitors on any action of the firm.
 2. Second component is determining the number of scenarios to analysis for each factor. Normally three scenarios are considered in general i.e. a best case, an average and a worst case. However, they may vary on long range.
 3. Third component is to place focus on critical factors and build relatively few scenarios for each factor.
 4. Fourth component is the assignment of probabilities to each scenarios. This assignment may be based on the macro factors e.g. exchange rates, interest rates etc. and micro factors e.g. competitor's reactions etc.
- f) In conclusion, we can say that when we calculate the NPV of several scenarios we are performing a scenario analysis.

QUESTION NO. 5

Write a short note on Real Option In Capital Budgeting ? Also indicate two real options Models.

1. The traditional measure of investment decision criterion i.e. NPV, does not take into account the value of options inherent in capital budgeting.

2. Not every manager ignores valuable real options. Damodaran (2000) argue that managers undertake negative NPV investments by suggesting that the presence of real options makes them valuable.
3. **Options in Capital Budgeting:** The following is a list of options that may exist in a capital budgeting project.

Long Call:

- a) Right to invest at some future date, at a certain price
- b) Generally, any flexibility to invest, to enter a business.

Long Put:

- a) Right to sell at some future date at a certain price
- b) Right to abandon at some future date at zero or some certain price)
- c) Generally, any flexibility to disinvest, to exit from a business.

Short Call:

- a) Promise to sell if the counterparty wants to buy
- b) Generally, any commitment to disinvest upon the action of another party

Short Put:

- a) Promise to buy if the counterparty wants to sell
- b) Generally, any commitment to invest upon the action of another party

4. Three of the most common real call options in capital budgeting include:
 - a) option to delay until key variables change favourably,
 - b) option to expand if a project turns out to be more promising and
 - c) option to abandon if worse case occurs.

Two real Options model are:

1. The Binomial Model of Option Pricing.
2. The Black – Scholes Model.

QUESTION NO. 6

What are the issues that need to be considered by an Indian investor and incorporated within the Net Present Value (NPV) model for the evaluation of foreign investment proposals?

The issues that need to be considered by an Indian investor and incorporated within the Net Present Value (NPV) model for the evaluation of foreign investment proposals are the following:

1. **Taxes on income associated with foreign projects:** The host country levies taxes (rates differ from country to country) on the income earned in that country the Multi National Company(MNC).Major variations that occur regarding taxation of MNC's are as follows:
 - i. Many countries rely heavily on indirect taxes such as excise duty; value added tax and turnover taxes etc.
 - ii. Definition of taxable income differs from country to country and also some allowances e.g. rates allowed for depreciation.

- iii. Some countries allow tax exemption or reduced taxation on income from certain desirable investment projects in the form of tax holidays, exemption from import and export duties and extra depreciation on plant and machinery etc.
- iv. Tax treaties entered into with different countries e.g. double taxation avoidance agreements.
- v. Offer of tax havens in the form of low or zero corporate tax rates.

2. Political risks: The extreme risks of doing business in overseas countries can be seizure of property/nationalization of industry without paying full compensation. There are other ways of interferences in the operations of foreign subsidiary e.g. levy of additional taxes on profits or exchange control regulations may block the flow of funds, restrictions on employment of foreign managerial/technical personnel, restrictions on imports of raw materials/supplies, regulations requiring majority ownership vetting within the host country.

NPV model can be used to evaluate the risk of expropriation by considering probabilities of the occurrence of various events and these estimates may be used to calculate expected cash flows. The resultant expected net present value may be subjected to extensive sensitivity analysis.

3. Economic risks: The two principal economic risks which influence the success of a project are exchange rate changes and inflation.

The impact of exchange rate changes and inflation upon incremental revenue and upon each element of incremental cost needs to be computed.

QUESTION NO. 7

Explain the concept 'Zero date of a Project' in project management.

Answer

Zero Date of a Project means a date is fixed from which implementation of the project begins. It is a starting point of incurring cost. The project completion period is counted from the zero date. Pre-project activities should be completed before zero date. The pre-project activities should be completed before zero date. The pre-project activities are:

- a. Identification of project/product
- b. Determination of plant capacity
- c. Selection of technical help/collaboration
- d. Selection of site.
- e. Selection of survey of soil/plot etc.
- f. Manpower planning and recruiting key personnel
- g. Cost and finance scheduling.

QUESTION NO. 8

How project appraisal is done under inflationary conditions?

(May 1998, Nov 2003)

- It is needless to mention that Inflation is a universal phenomenon. In a developing country like India, it has become a part of life.
- It is a well-known fact that during inflationary conditions, project cost is bound to increase on all heads viz. labour, raw material, fixed assets such as equipments, plant & machinery, building material, remuneration of technicians & managerial personnel etc.
- Under such circumstances, project appraisal has to be done generally keeping in view the following guidelines which are usually followed by Government agencies, banks and financial institutions:
 - i. It is always advisable to make provisions for **cost escalation** on all heads of cost,

keeping in view the rate of inflation during likely period of delay in project implementation.

- II. The various **sources of finance** should be carefully scrutinised with reference to probable revision in the rate of interest by the lenders and the revision which could be effected in the interest bearing securities to be issued. All these factors will push up the cost of funds for the organisation.
- III. Adjustments should be made in **profitability and cash flow projections** to take care of the inflationary pressures affecting future projections.
- IV. It is also advisable to examine the **financial viability of the project** at the revised rates and assess the same with reference to economic justification of the project. The rate of return should be acceptable which also accommodates the rate of inflation p.a.
- V. In an inflationary situation, projects having early **payback periods** should be preferred because projects with longer payback period are more risky.

It must be noted that measurement of inflation has no standard approach nor is easy. This makes the job of appraisal a difficult one under such conditions.

QUESTION NO. 9

What are the guidelines of Public Investment Board for project appraisal? (Nov 2010) (4 Marks)

In public sector, the projects beyond the specified limit come under the purview of Central Government and the same is decided by the Public Investment Board (PIB). The PIB is an organ of the Central Government with persons from the Deptt. Of Economic Affairs, Deptt. of Industrial Development, Planning Commission and from Administrative Ministry. PIB has formulated guidelines for project appraisal which includes, inter alia –

1. The project should be in conformity with plan priorities.
2. There should be a feasibility of undertaking project in public or joint section.
3. Wherein the IRR is expected to adequate.
4. The analysis of social cost benefit is undertaken.
5. Wherein the project is expected to contribute to Foreign Exchange earnings.
6. There is a provision of funds in budgetary allocation.
7. Logical sequence of project schedule has been arranged.
8. Adequacy of safety and anti pollution measures have been ensured. There may be some other guidelines also in view of the PPP models also.

QUESTION NO. 10

Explain in brief the contents of a Project Report.

Answer

The following aspects need to be taken into account for a Project Report -

1. **Promoters:** Their experience, past records of performance form the key to their selection for the project under study.
2. **Industry Analysis:** The environment outside and within the country is vital for determining the type of project one should opt for.
3. **Economic Analysis:** The demand and supply position of a particular type of product under consideration, competitor's share of the market along with their marketing strategies, export potential of the product, consumer preferences are matters requiring proper attention in such type of analysis.
4. **Cost of Project:** Cost of land, site development, buildings, plant and machinery, utilities e.g. power, fuel, water, vehicles, technical know-how together with working capital

margins, preliminary/pre-operative expenses, provision for contingencies determine the total value of the project.

5. **Inputs:** Availability of raw materials within and outside the home country, reliability of suppliers cost escalations, transportation charges, manpower requirements together with effluent disposal mechanisms are points to be noted.
6. **Technical Analysis:** Technical know-how, plant layout, production process, installed and operating capacity of plant and machinery form the core of such analysis.
7. **Financial Analysis:** Estimates of production costs, revenue, tax liabilities profitability and sensitivity of profits to different elements of costs and revenue, financial position and cash flows, working capital requirements, return on investment, promoters contribution together with debt and equity financing are items which need to be looked into for financial viability.
8. **Social Cost Benefit Analysis:** Ecological matters, value additions, technology absorptions, level of import substitution form the basis of such analysis.
9. **SWOT Analysis:** Liquidity/Fund constraints in capital market, limit of resources available with promoters, business/financial risks, micro/macro-economic considerations subject to government restrictions, role of Banks/Financial Institutions in project assistance, cost of equity and debt capital in the financial plan for the project are factors which require careful examinations while carrying out SWOT analysis.
10. **Project Implementation Schedule:** Date of commencement, duration of the project, trial runs, cushion for cost and time over runs and date of completion of the project through Network Analysis have all to be properly adhered to in order to make the project feasible.

Chapter 3 - Leasing

QUESTION NO. 1

Write a short note on Lease? What are the characteristic features of Financial and Operating Lease?

❖ **Meaning** : Lease can be defined as a right to use an equipment or capital goods on payment of periodical amount.

❖ **Parties to a Lease Agreement:**

There are two principal parties to any lease transaction as under :

Lessor : Who is actual owner of equipment permitting use to the other party on payment of periodical amount.

Lessee : Who acquires the right to use the equipment on payment of periodical amount.

❖ **Type of Leasing** : The different leasing options may however, be grouped in by two broad categories as under:

Operating Lease : Features of Operating Lease

- (i) It is a short-term arrangement.
- (ii) It can be cancelled by the lessee prior to its expiration date.
- (iii) The lease rental is generally not sufficient to fully amortize the cost of the asset.
- (iv) The cost of maintenance, taxes, insurance are the responsibility of the lessor.
- (v) The lessee is protected against the risk of obsolescence.
- (vi) The lessor has the option to recover the cost of the asset from another party on cancellation of the lease by leasing out the asset.
- (vii) The lease term is significantly less than the economic life of the equipment.

These Agreements may generally be preferred by the lessee in the following circumstances:

- a) When the long-term suitability of asset is uncertain.
- b) When the asset is subject to rapid obsolescence
- (c) When the asset is required for immediate use to tide over a temporary problem.

Computers & other office equipments are very common assets which form subject matter of many operating lease agreements.

Financial Lease : Features of Financial Lease

- (i) It is a long-term arrangement.
- (ii) During the primary lease period, the lease cannot be cancelled.
- (iii) The lease is more or less fully amortized during the primary lease period.
- (iv) The cost of maintenance, taxes, insurance etc., are to be incurred by the lessee unless the contract provides otherwise.
- (v) The lessee is required to take the risk of obsolescence.
- (vi) The lessor is only the Financier and is not interested in the asset.
- (vii) The lease term generally covers the full economic life of the equipment.

Sales and Lease Back Leasing :

Meaning : Under this arrangement an asset which already exists and in use by the lessee is first sold to the lessor for consideration in cash. The same asset is then acquired for use under

financial lease agreement from the lessor.

Necessity/Purpose : This is a method of raising funds immediately required by lessee for working capital or other purposes. Sometimes it is also used as Tax Saving Mechanism.

Benefit : The lessee continues to make economic use of assets against payment of lease rentals while ownership vests with the lessor.

Sales-Aid-Lease :

Meaning : When the leasing company (lessor) enters into an arrangement with the seller, usually manufacturer of equipment, to market the later's product through its own leasing operations, it is called a 'sales-aid-lease'.

Benefit: The leasing company usually gets a commission on such sales from the manufactures and doubles its profit.

QUESTION NO. 2

Write a short note on Cross Border Leasing ? (SFM Nov 2008)

- ❖ **Meaning** : In case of cross-border or international lease, the lessor and the lessee are situated in two different countries. Because the lease transaction takes place between parties of two or more countries, it is called cross-border lease.
- ❖ It involves relationships and tax implications more complex than the domestic lease.
- ❖ Cross-border leasing has been widely used in some European countries, to arbitrage the difference in the tax laws of different countries.
- ❖ Cross-border leasing have been in practice as a means of financing infrastructure development in emerging nations - such as rail and air transport equipment, telephone and telecommunications, equipment, and assets incorporated into power generation and distribution systems and other projects that have predictable revenue streams.
- ❖ **Basic Prerequisites Of Cross Border Leasing** : The basic prerequisites are relatively high tax rates in the lessor's country, liberal depreciation rules and either very flexible or very formalistic rules governing tax ownership.
- ❖ **Objective Of Cross Border Leasing** : A major objective of cross-border leases is to reduce the overall cost of financing through utilization of tax depreciation allowances to reduce its taxable income. Other important objectives of cross border leasing include the following :
 - a) The lessor is often able to utilize nonrecourse debt to finance a substantial portion of the equipment cost.
 - b) Also, depending on the structure, in some countries the lessor can utilize very favourable "leveraged lease" financial accounting treatment for the overall transaction.
 - c) In some countries, it is easier or a lessor to repossess the leased equipment following a lessee default.
 - d) Leasing provides the lessee with 100% financing.
- ❖ **Principal Players Of Cross Border Lease**: The principal players are
 - (i) one or more equity investors;
 - (ii) a special purpose vehicle formed to acquire and own the equipment and act as the lessor;
 - (iii) one or more lenders, and

(iv) the lessee.

- ❖ **Benefits Of Cross Border Leasing** : Cross border lease benefits are more or less the same as are available in domestic lease viz. 100% funding off-balance sheets financing, the usual tax benefits on leasing, etc. In addition to these benefits, the following are the more crucial aspects which are required to be looked into:
- appropriate currency requirements can be met easily to match the specific cash flow needs of the lessee;
 - funding for long period and at fixed rate which may not be available in the lessee home market may be obtained internationally;
 - maximum tax benefits in one or more regions could be gained by structuring the lease in a convenient fashion;
 - tax benefits can be shared by the lessee or lessor accordingly by pricing the lease in the most beneficial way to the parties;
 - choice of assets for cross border lease is different than domestic lease because those assets may find here attractive bargain which are internationally mobile . have adequate residual value and enjoy undisputed title.

QUESTION NO. 3

Mention few points of differences between :-

(a) Operating Lease & Finance Lease:

Basis	Finance Lease	Operating Lease
1. Life of contract	Approximates the economic life of the asset	Shorter than the economic life of the asset.
2. Maintenance	The burden of the costs of maintenance, repairs, taxes, insurance etc. are borne by the lessee unless the contract provides to the contrary.	The burden of all these expenses are borne by the lessor.
3. Cancellation	It is a non-revocable contract i.e. it cannot be cancelled by the lessee prior to its expiration date.	It is a revocable one i.e. it can be cancelled by the lessee prior to its expiration date.
4. Duration	In this case, the lease period is usually related to the useful life of the asset.	It is usually of a shorter duration & bears no relation to the economic life of the asset.
5. Risk of Obsolescence	The lessee has to take the risk of obsolescence in the case of Financial lease.	The lessee is protected against risk of obsolescence.
6. Cost of Asset	The lease rental would cover the lessor's original investment cost plus return on investment.	The lease rental is generally not sufficient to fully amortise the cost of the asset.
7. Risk & Reward	The risk and reward incident to ownership are passed on to the	The lessee is only provided the use of the asset for a

	lessee. The lessor only remains the legal owner of the asset.	certain time. Risk incident to ownership belong wholly to the lessor
8. Full Payout	The lease is usually full payout, that is, the single lease repays the cost of the asset together with the interest.	The lease is usually non-payout, since the lessor expects to lease the same asset over and over again to several users.

QUESTION NO. 4

Mention differences between :-

(a) Hire Purchase & Lease Financing:

Basis	Hire Purchase	Lease Financing
1. Ownership	It passes to the user (Hirer) on payment of last instalment	The lessor (finance company) is the owner and ownership never passes to the lessee
2. Down Payment	20%-25% of the cost is paid as down payment	There is no down payment in Lease financing.
3. Depreciation	Depreciation is charged in books of hirer (user)	Depreciation is charged in the books of lessor.
4. Maintenance	Cost is borne by the hirer (user)	In operating lease it is charged to lessor (seller) and in case of finance lease it is charged to lessee.
5. Capitalisation	It is done in the books of hirer	It is done in the books of leasing company.
6. Tax Benefits	Hirer is allowed to claim Depreciation and finance charge.	Lessee can claim the rental as business expenditure, lessor will claim the amount of depreciation.
7. Risk of Obsolescence	The risk of obsolescence is born by hirer	In operating lease it is born by lessor (seller) and in case of finance lease it is born by lessee
8. Reporting	The asset/equipment is shown in the Balance Sheet of hirer and the instalment payable as a liability	The asset/equipment is shown as a footnote in the Balance Sheet of the lessee

Chapter 4 - Dividend Policy

QUESTION NO. 1

Explain the factors/determinants for determining Dividend Policy?
(CA Final)(May 99, Nov 01, Nov 02, May 06)

The factors that affect the dividend policy of a company are as follows:

1. **Legal Considerations:** The provisions of the Companies Act, 1956 must be kept in mind since they provide a major dimension to the dividend decision. Section 205 of the Companies Act prescribes the quantum of distributable profits. Further the provisions of the Income-tax Act specially as they relate to closely held companies may also be seen. All these provisions provide the legal framework within which the dividend policy has to be formulated. Under no circumstances, it is possible to declare a dividend higher than the amount legally permissible.
2. **Stability of Earnings:** A firm having stable income can afford to have higher dividend payout ratio as compared to a firm which does not have such stability in its earnings conditions.
3. **Opportunities for Reinvestment and Growth:** A company which sees a high growth potential for itself and, therefore, requires a large amount of funds for financing growth will declare lower dividends to conserve resources and maintain its debt equity ratio at a proper level. If, however a company does not have immediate requirement for funds. it may decide to declare high dividends.
4. **Cash flow:** From the point of view of financial prudence, a company must consider its cash requirements before declaring a dividend. In case it has a strained liquidity position. it may declare a lower dividend.
5. **Level of Inflation in the Economy:** The dividend decision is also linked up with the level of inflation in the economy.
6. **Effect on Market Prices:** Dividend decision is one of the major factors which affect the market price of shares. As per traditional approach the Market Price of the share is considered to be the Present Value of the future dividend.
7. **Tax Considerations:** The tax status of the major shareholders also affects the dividend decision sometimes.
8. **Other Factors:** There are many other factors such as dividend policy of other firms in the same industry; attitude of management on dilution of existing control; fear of being branded inefficient or conservative etc. which also affect the dividend policy of a company.

QUESTION NO. 2

Write short note on effect of a Government imposed freeze on dividends on stock prices and the volume of capital investment in the background of Miller-Modigliani (MM) theory on dividend policy.

Effect of a Government Imposed Freeze on Dividends on Stock Prices and the Volume of Capital Investment in the Background of (Miller-Modigliani) (MM) Theory on Dividend Policy

According to MM theory, under a perfect market situation, the dividend of a firm is irrelevant as it does not affect the value of firm. Thus under MM's theory the government imposed freeze on dividend should make no difference on stock prices. Firms if do not pay dividends will have higher retained earnings and will either reduce the volume of new stock issues, repurchase more stock from market or simply invest extra cash in marketable securities. In all the above cases, the loss by investors of cash dividends will be made up in the form of capital gains. Whether the Government imposed freezes on dividends have effect on volume of capital investment in the background of MM theories on dividend policy have two arguments. One argument is that if the firms keep their investment decision separate from their dividend and financing decision then the freeze on dividend by the Government will have no effect on volume of capital investment. If the freeze restricts dividends the firm can repurchase shares or invest excess cash in marketable securities e.g. in shares of other companies. Other argument is that the firms do not separate their investment decision from dividend and financing decisions. They prefer to make investment from internal funds. In this case, the freeze of dividend by government could lead to increased real investment.

QUESTION NO. 3

What are the determinants of Dividend Policy?

Determinants of dividend policy

Many factors determine the dividend policy of a company. Some of the factors determining the dividend policy are:

1. **Dividend Payout ratio:** A certain share of earnings to be distributed as dividend has to be worked out. This involves the decision to pay out or to retain. The payment of dividends results in the reduction of cash and, therefore, depletion of assets. In order to maintain the desired level of assets as well as to finance the investment opportunities, the company has to decide upon the payout ratio. D/P ratio should be determined with two bold objectives - maximizing the wealth of the firms' owners and providing sufficient funds to finance growth.
2. **Stability of Dividends:** Generally investors favor a stable dividend policy. The policy should be consistent and there should be a certain minimum dividend that should be paid regularly. The liability can take any form, namely, constant dividend per share; stable D/P ratio and constant dividend per share plus something extra. Because this entails - the investor's desire for current income, it contains the information content about the profitability or efficient working of the company; creating interest for institutional investor's etc.
3. **Legal, Contractual and Internal Constraints and Restriction:** Legal and Contractual requirements have to be followed. All requirements of Companies Act, SEBI guidelines, capital impairment guidelines, net profit and insolvency etc., have to be kept in mind while declaring dividend. For example, insolvent firm is prohibited from paying dividends; before paying dividend accumulated losses have to be set off, however, the dividends can be paid out of current or previous years' profit. Also there may be some contractual requirements which are to be honoured. Maintenance of certain debt equity ratio may be such requirements. In addition, there may be certain internal constraints which are unique to the firm concerned. There may be growth prospects, financial requirements, availability of funds, earning stability and control etc.
4. **Owner's Considerations:** This may include the tax status of shareholders, their opportunities for investment dilution of ownership etc.

5. Capital Market Conditions and Inflation: Capital market conditions and rate of inflation also play a dominant role in determining the dividend policy. The extent to which a firm has access to capital market, also affects the dividend policy. A firm having easy access to capital market will follow a liberal dividend policy as compared to the firm having limited access. Sometime dividends are paid to keep the firms 'eligible' for certain things in the capital market. In inflation, rising prices eat into the value of money of investors which they are receiving as dividends. Good companies will try to compensate for rate of inflation by paying higher dividends. Replacement decision of the companies also affects the dividend policy.

QUESTION NO. 4

How tax considerations are relevant in the context of a dividend decision of a company?

Dividend Decision and Tax Considerations

Traditional theories might have said that distribution of dividend being from after-tax profits, tax considerations do not matter in the hands of the payer-company. However, with the arrival of Corporate Dividend Tax on the scene in India, the position has changed. Since there is a clear levy of such tax with related surcharges, companies have a consequential cash outflow due to their dividend decisions which has to be dealt with as and when the decision is taken.

In the hands of the investors too, the position has changed with total exemption from tax being made available to the receiving-investors. In fact, it can be said that such exemption from tax has made the equity investment and the investment in Mutual Fund Schemes very attractive in the market.

Broadly speaking Tax consideration has the following impacts on the dividend decision of a company:

Before Introduction of Dividend Tax: Earlier, the dividend was taxable in the hands of investor. In this case the shareholders of the company are corporate or individuals who are in higher tax slab; it is preferable to distribute lower dividend or no dividend. Because dividend will be taxable in the hands of the shareholder @ 30% plus surcharges while long term capital gain is taxable @ 10%. On the other hand, if most of the shareholders are the people who are in no tax zone, then it is preferable to distribute more dividends.

We can conclude that before distributing dividend, company should look at the shareholding pattern.

After Introduction of Dividend Tax: Dividend tax is payable @ 12.5% - surcharge + education cess, which is effectively near to 14%. Now if the company were to distribute dividend, shareholder will indirectly bear a tax burden of 14% on their income. On the other hand, if the company were to provide return to shareholder in the form of appreciation in market price - by way of Bonus shares - then shareholder will have a reduced tax burden. For securities on which STT is payable, short term capital gain is taxable @ 10% while long term capital gain is totally exempt from tax.

Therefore, we can conclude that if the company pays more and more dividend (while it still have reinvestment opportunities) then to get same after tax return shareholders will expect more before tax return and this will result in lower market price per share.

QUESTION NO. 5

According to the position taken by Miller and Modigliani, dividend decision does not influence value. Please state briefly any two reasons, why companies should declare dividend and not ignore it.

The position taken by M & M regarding dividend does not take into account certain practical realities in the market place. Companies are compelled to declare annual cash dividends for reasons cited below:-

1. Shareholders expect annual reward for their investment as they require cash for meeting needs of personal consumption.
2. Tax considerations sometimes may be relevant. For example, dividend might be tax free receipt, whereas some part of capital gains may be taxable.
3. Other forms of investment such as bank deposits, bonds etc, fetch cash returns periodically, investors will shun companies which do not pay appropriate dividend.
4. In certain situations, there could be penalties for non-declaration of dividend, e.g. tax on undistributed profits of certain companies.

QUESTION NO. 6

Write a short note on Traditional & Walter Approach to Dividend Policy

According to the traditional position expounded by Graham and Dodd, the stock market places considerably more weight on dividends than on retained earnings. For them, the stock market is overwhelmingly in favour of liberal dividends as against niggardly dividends. Their view is expressed quantitatively in the following valuation model:

$$P = m (D + E/3)$$

Where,

P = Market Price per share

D = Dividend per share

E = Earnings per share

m = a Multiplier.

As per this model, in the valuation of shares the weight attached to dividends is equal to four times the weight attached to retained earnings. In the model prescribed, E is replaced by (D+R) so that

$$\begin{aligned} P &= m \{D + (D+R)/3\} \\ &= m (4D/3) + m (R/3) \end{aligned}$$

The weights provided by Graham and Dodd are based on their subjective judgments and not derived from objective empirical analysis. Notwithstanding the subjectivity of these weights, the major contention of the traditional position is that a liberal payout policy has a favorable impact on stock prices.

The formula given by Prof. James E. Walter shows how dividend can be used to maximize the wealth position of equity holders. He argues that in the long run, share prices reflect only the present value of expected dividends. Retentions influence stock prices only through their effect on further dividends. It can envisage different possible market prices in different situations and considers internal rate of return, market capitalization rate and dividend payout ratio in the determination of market value of shares.

Walter Model focuses on two factors which influences Market Price

- (i) Dividend per Share.
- (ii) Relationship between Internal Rate of Return (IRR) on retained earnings and market expectations (cost of capital).

If $IRR > \text{Cost of Capital}$, Share price can be even higher in spite of low dividend. The relationship between dividend and share price on the basis of Walter's formula is shown below:

$$V_C = \frac{D + \frac{R_a}{R_c} (E - D)}{R_c}$$

Where,

V_C = Market value of the ordinary shares of the company

R_a = Return on internal retention, i.e., the rate company earns on retained profits

R_c = Cost of Capital

E = Earnings per share

D = Dividend per share.

Chapter 5 - Indian Capital Market

QUESTION NO. 1

What are the functions of the Stock Exchanges? (RTP Nov 10)(May 2011,4 Marks)

The Stock Exchange is a market place where investors buy and sell securities. Functions of the stock exchanges can be summarized as follows:

1. Liquidity and Marketability of Securities:

The basic function of the stock market is the creation of a continuous market for securities, enabling them to be liquidated, where investors can convert their securities into cash at any time at the prevailing market price. It also provides investors the opportunity to change their portfolio as and when they want to change, i.e. they can at any time sell one security and purchase another, thus giving them marketability.

2. Fair Price Determination:

This market is almost a perfectly competitive market as there are large number of buyers and sellers. Due to nearly perfect information, active bidding takes place from both sides. This ensures the fair price to be determined by demand and supply forces.

3. Source for Long term Funds:

Corporate, Government and public bodies raise funds from the equity market. These securities are negotiable and transferable. They are traded and change hands from one investor to the other without affecting the long-term availability of funds to the issuing companies.

4. Helps in Capital Formation:

They are the nexus between the savings and the investments of the community. The savings of the community are mobilized and channeled by stock exchanges for investment into those sectors and units which are favored by the community at large, on the basis of such criteria as good return, appreciation of capital, and so on.

5. Reflects the General State of Economy:

The performance of the stock markets reflects the boom and depression in the economy. It indicates the general state of the economy to all those concerned, who can take suitable steps in time. The Government takes suitable monetary and fiscal steps depending upon the state of the economy.

QUESTION NO. 2

Write a short note on Rolling Settlement ? (CA Final)(SFM Nov 2008)

- ❖ **Meaning :** A rolling settlement is that settlement cycle of the stock exchange, where all trades outstanding at end of the day have to be settled, which means that the buyer has to make payments for securities purchased and seller has to deliver the securities sold.

❖ **Benefits of Rolling Settlement :**

1. In rolling settlements, payments are quicker than in weekly settlements. Thus, investors benefit from increased liquidity.
2. It keeps cash and forward markets separate.
3. Rolling settlements provide for a higher degree of safety.
4. From an investor's perspective, rolling settlement reduces delays. This also reduces the tendency for price trends to get exaggerated. Hence, investors not only get a better price but can also act at their leisure.

QUESTION NO. 3

What is Green Share Option-or Green Shoe Option ? Explain the working mechanism ?

- ❖ Green Shoe Option (GSO) means an option available to the company issuing securities to the public to allocate shares in excess of the public issue and operating a post-listing price stabilising mechanism through a stabilising agent.
 - ❖ This option acts as a safety net for the investors and is a standard global-practice.
 - ❖ The name comes from the fact that Green Shoe Company was the first entity to use this option.
 - ❖ SEBI inserted a new Chapter No. VIII-A, with effect from August 14, 2003, in the SEBI (Disclosure and Investors Protection) Regulations, 2000 to deal with the GSO.
 - ❖ The GSO is available to a company which is issuing equity shares through book-building mechanism for stabilising the post-listing price of the shares. The following is the mechanism process of GSO :
1. The Company shall **appoint one of the leading book runners** as the Stabilising Agent (SA), who will be responsible for the price stabilising process.
 2. The promoters of the company **will enter into an agreement with SA** to lend some of their shares to the latter, not exceeding 15% of the total issue size.
 3. The borrowed shares shall be in the **dematerialised form**. These shares will be kept in a **separate GSO Demat A/c.**
 4. In case of **over subscription**, the allocation of these share shall be on **pro-rata basis** to all applicants.
 5. The money received from allotment of these shares shall also be kept in a **'GSO Bank A/c'**. distinct from the issue account, and the amount will be used for buying shares from the market during the stabilization period.
 6. The shares bought from the market by SA for stabilization shall be **credited to GSO Demat Account.**
 7. These shares shall be returned to the promoters **within 2 days of closure of stabilisation process.**
 8. In order to stabilise post-listing prices, the SA shall determine **the timing and quantity of shares** to be bought.
 9. If at the expiry of the stabilisation period, the SA does not purchase shares to the extent of over-allocated shares, then shares to the extent of shortfall will be allotted by the company to the **GSO Demat A/c multiplied by the issue price**. Amount left in the GSO Bank A/c (after meeting expenses of SA), shall be transferred to the **Investors Protection Fund.**
 - ❖ In the Indian context, green shoe option has a limited connotation. SEBI guidelines governing public issues contain appropriate provisions for accepting over-subscriptions, subject to a ceiling, say 15% of the offer made to public. In certain situations, the green-

shoe option can even be more than 15%.

Examples of GSO issues in India

- In April, 2004 the ICICI bank Ltd. became the first Indian company to offer GSO. The ICICI Bank Ltd. offered equity shares of ₹ 3050 crores through 100% book building process to the investors. The issue was oversubscribed by 5.14 times.
- IDBI has also come up with their Flexi Bonds (Series 4 and 5) under GSO.
- More recently Infosys Technologies has also exercised GSO for its issue. This offer initially involved 5.22 million depository shares, representing 2.61 million domestic equity shares.

QUESTION NO. 4

What are the Factors Affecting Value of an Option ?

Factors Affecting Value of an Option:

1. **Price of the Underlying:** The value of calls and puts are affected by changes in the underlying stock price in a relatively straightforward manner. When the stock price goes up, calls should gain in value and puts should decrease. When the stock market falls put options should increase in value and calls option should drop in value.
2. **Time:** The value of an option declines more rapidly as the option approaches the expiration day. That is good news for the option seller, who tries to benefit from time decay, especially during that final month when it occurs most rapidly.
3. **Volatility:** The beginning point of understanding volatility is a measure called statistical volatility, or SV for short. SV is a statistical measure of the past price movements of the stock; it tells you how volatile the stock has actually been over a given period of time.
4. **Interest Rate-** Another feature which effects the value of an Option is the time value of money. The greater the interest rates, the present value of the future exercise price is less.

QUESTION NO. 5

What are the reasons for stock index futures becoming more popular financial derivatives over stock futures segment in India ? **(May 2010, 6 Marks)**

- ❖ Trading in stock index futures contracts was introduced by the Kansas City Board of Trade on February 24, 1982. In April 1982, the Chicago Mercantile Exchange (CME) began trading in futures contract based on the Standard and Poor's Index of 500 common stocks. The introduction of both contracts was successful, especially the S&P 500 futures contract, adopted by most institutional investors.
- ❖ **In India**, both the NSE and the BSE have introduced index futures in the S&P CNX Nifty and the BSE Sensex.
- ❖ **Uses of Stock Index Futures:** Investors can use stock index futures to perform various tasks. Some common uses are:
 - (i) to speculate on changes in specific markets;
 - (ii) to change the weightings of portfolios;
 - (iii) to take part in index arbitrage, whereby the investors seek to gain profits whenever a futures contract is trading out of line with the fair price of the securities underlying it.
 - (iv) Using Indexes to Hedge Portfolio Risk: Aside from the above uses of indexes, investors often use stock index futures to hedge the value of their portfolios. To implement a hedge, the instruments in the cash and futures markets should have similar price movements.
- ❖ Main reasons to trade stock index futures are:

Stock index futures is most popular financial derivatives over stock futures due to following reasons:

1. It adds flexibility to one's investment portfolio. Institutional investors and other large equity holders prefer the most this instrument in terms of portfolio hedging purpose. The stock systems do not provide this flexibility and hedging.
2. It creates the possibility of speculative gains using leverage. Because a relatively small amount of margin money controls a large amount of capital represented in a stock index contract, a small change in the index level might produce a profitable return on one's investment if one is right about the direction of the market. Speculative gains in stock futures are limited but liabilities are greater.
3. Stock index futures are the most cost efficient hedging device whereas hedging through individual stock futures is costlier.
4. Stock index futures cannot be easily manipulated whereas individual stock price can be exploited more easily.
5. Since, stock index futures consists of many securities, so being an average stock, is much less volatile than individual stock price. Further, it implies much lower capital adequacy and margin requirements in comparison of individual stock futures. Risk diversification is possible under stock index future than in stock futures.
6. One can sell contracts as readily as one buys them and the amount of margin required is the same.
7. In case of individual stocks the outstanding positions are settled normally against physical delivery of shares. In case of stock index futures they are settled in cash all over the world on the premise that index value is safely accepted as the settlement price.
8. It is also seen that regulatory complexity is much less in the case of stock index futures in comparison to stock futures.
9. It provides hedging or insurance protection for a stock portfolio in a falling market.
10. Index Futures are:
 - ✓ Highly liquid
 - ✓ Large intra-day price swings
 - ✓ High leverage
 - ✓ Low initial capital requirement
 - ✓ Lower risk than buying and holding stocks
 - ✓ Just as easy to trade the short side as the long side
 - ✓ Only have to study one index instead of 100's of stocks

QUESTION NO. 6

Write a short note on EMBEDDED DERIVATIVES:

(SFM Nov 2008)

- ❖ **Meaning:** An embedded derivative is a derivative instrument that is embedded in another contract - the host contract. The host contract might be a debt or equity instrument, a lease, an insurance contract or a sale or purchase contract.
- ❖ **How They Arise:** An embedded derivative can arise from deliberate financial engineering and intentional shifting of certain risks between parties. Many embedded derivatives, however, arise inadvertently through market practices and common contracting arrangements. Even purchase and sale contracts that qualify for executory contract treatment may contain embedded derivatives.
- ❖ **Illustration :** A coal purchase contract may include a clause that links the price of the coal to a pricing formula based on the prevailing electricity price or a related index at the date of

delivery. The coal purchase contract, which qualifies for the executory contract exemption, is described as the host contract, and the pricing formula is the embedded derivative. The pricing formula is an embedded derivative because it changes the price risk from the coal price to the electricity price.

- ❖ **When must embedded derivatives be accounted for?** An embedded derivative is split from the host contract and accounted for separately if:
 1. Its economics are not closely related to those of the host contract;
 2. A separate instrument with the same terms as the embedded derivative would meet the definition of a derivative; and
 3. The entire contract is not carried at fair value through profit or loss.
- ❖ **Closely Related & Not Closely Related:** An embedded derivative that modifies an instrument's inherent risk (such as a fixed to floating interest rate swap) would be considered closely related. Conversely, an embedded derivative that changes the nature of the risks of a contract is not closely related.
- ❖ **Examples**

Closely related- Examples of embedded derivatives that need not be separated

- ✓ A derivative embedded in a host lease contract is closely related to the host contract if the embedded derivative comprises contingent rentals based on related sales;
- ✓ An inflation index term in a debt instrument as long as it is not leveraged and relates to the inflation index in the economic environment in which the instrument is denominated or issued;

Not closely related- Examples of embedded derivatives that must be separated

- ✓ Equity conversion feature embedded in a debt instrument e.g. investment in convertible bonds;
- ✓ Option to extend the term of a debt instrument unless there is a concurrent adjustment of the interest rate to reflect market prices;

- ❖ **Fair Valuing Embedded Derivatives:** Embedded derivatives that are separated from the host contract are accounted for at fair value with changes in fair value taken through the income statement. Published price quotations in an active market are normally the best evidence of fair value.

In the case of option derivatives (e.g. puts & calls), the embedded derivatives should be separated from the host contract and valued based on the stated terms of the option. It is assumed that an option derivative will not normally have a fair value of zero at initial recognition. In the case of non-option derivatives, the embedded derivatives should be separated from the host contract based on its stated and implied terms and is assumed to have a fair value of zero at initial recognition.

QUESTION NO. 7

What are the features of Futures Contract? (Nov2010) (4 Marks)

- ❖ **Future contracts can be characterized by: -**

1. These are traded on organized exchanges.
2. Standardised contract terms like the underlying assets, the time of maturity and the manner of maturity etc.
3. Associated with clearing house to ensure smooth functioning of the market.
4. Margin requirements and daily settlement to act as further safeguard i.e., marked to market.
5. Existence of regulatory authority.
6. Every day the transactions are marked to market till they are re-wound or matured. Future contracts being traded on organized exchanges, impart liquidity to a transaction. The clearing-house being the counter party to both sides of a transaction, provides a mechanism that guarantees the honouring of the contract and ensuring very low level of default.

QUESTION NO. 8

Explain the term “Offer for Sale”.

Offer for sale is also known as bought out deal (BOD). It is a new method of offering equity shares, debentures etc., to the public. In this method, instead of dealing directly with the public, a company offers the shares/debentures through a sponsor. The sponsor may be a commercial bank, merchant banker, an institution or an individual. It is a type of wholesale of equities by a company. A company allots shares to a sponsor at an agreed price between the company and sponsor. The sponsor then passes the consideration money to the company and in turn gets the shares duly transferred to him. After a specified period as agreed between the company and sponsor, the shares are issued to the public by the sponsor with a premium. After the public offering, the sponsor gets the shares listed in one or more stock exchanges. The holding cost of such shares by the sponsor may be reimbursed by the company or the sponsor may get the profit by issue of shares to the public at premium.

Thus, it enables the company to raise the funds easily and immediately. As per SEBI guidelines, no listed company can go for BOD. A privately held company or an unlisted company can only go for BOD. A small or medium size company which needs money urgently chooses to BOD. It is a low cost method of raising funds. The cost of public issue is around 8% in India. But this method lacks transparency. There will be scope for misuse also. Besides this, it is expensive like the public issue method. One of the most serious short coming of this method is that the securities are sold to the investing public usually at a premium. The margin thus between the amount received by the company and the price paid by the public does not become additional funds of the company, but it is pocketed by the issuing houses or the existing shareholders.

QUESTION NO. 9

Explain the terms ESOS and ESPS with reference to the SEBI guidelines for The Employees Stock Option Plans (ESOPs).

ESOS	ESPS
Meaning	
Employee Stock Option Scheme means a scheme under which the company grants option to employees	Employee Stock phase Scheme means a scheme under which company offers shares to employees as a part of public issue.
Auditors' Certificate	

Auditors' Certificate to be placed each AGM stating that the scheme has been implemented as per guidelines and in accordance with the special resolution passed.	No such Certificate is required.
Transferability	
It is not transferable.	It is transferable after lock in period.
Consequences of failure	
The amount payable may be forfeited. If the option is not vested due to non- fulfilment of condition relating vesting of option then the amount may be refunded to the employees.	Not applicable.
Lock in period	
Minimum period of 1 year shall be there between the grant and vesting of options. Company is free to specify the lock in period for the shares is pursuant to exercise of option.	One year from the date of allotment. the ESPS is part of public issue and the shares are issued to employees at the same price as in the public issue, the shares issued to employees pursuant to ESPS shall not be subject to any lock in.

QUESTION NO. 10

Write short notes on the following:

Stock Lending Scheme - its meaning, advantages and risk involved.

- 1. Stock Lending Scheme:** Stock lending means transfer of security. The legal title is temporarily transferred from a lender to a borrower. The lender retains all the benefits of ownership, except voting power/rights. The borrower is entitled to utilize the securities as required but is liable to the lender for all benefits such as dividends, rights etc. The basic purpose of stock borrower is to cover the short sales i.e. selling the shares without possessing them. SEBI has introduced scheme for securities lending and borrowing in 1997.

Advantages:

- I. Lenders to get return (as lending charges) from it, instead of keeping it idle.
- II. Borrower uses it to avoid settlement failure and loss due to auction.
- III. From the view-point of market this facilitates timely settlement, increase in settlement, reduce market volatility and improves liquidity.
- IV. This prohibits fictitious Bull Run.

The borrower has to deposit the collateral securities, which could be cash, bank guarantees, government securities or certificates of deposits or other securities, with the approved intermediary. In case, the borrower fails to return the securities, he will be declared a defaulter and the approved intermediary will liquidate the collateral deposited with it.

In the event of default, the approved intermediary is liable for making good the loss caused to the lender.

The borrower cannot discharge his liabilities of returning the equivalent securities through payment in cash or kind.

National Securities Clearing Corporation Ltd. (NSCCL), Stock Holding Corporation of India (SHCIL), Deutsche Bank, and Reliance Capital etc. are the registered and approved intermediaries for the purpose of stock lending scheme. NSCCL proposes to offer a number of schemes, including the Automated Lending and Borrowing Mechanism (ALBM), automatic borrowing for settlement failures and case by case borrowing.

QUESTION NO. 11

Distinguish between Forward and Futures contracts.

S. No.	Features	Forward	Futures
1	Trading	Forward contracts are traded on personal basis or on telephone or otherwise.	Futures Contracts are traded in a competitive arena
2	Size of Contract	Forward contracts are individually tailored and have no standardized size	Futures contracts are standardized in terms of quantity or amount as the case may be
3	Organized exchanges	Forward contracts are traded in an over the counter market.	Futures contracts are traded on organized exchanges with designated physical location.
4	Settlement	Forward contracts settlement takes place on the date agreed upon between the parties.	Futures contracts settlements are made daily via. Exchange clearing house.
5	Delivery date	Forward contracts may be delivered on the dates agreed upon and in terms of actual delivery.	Futures contracts delivery dates are fixed on cyclical basis and hardly takes place. However, it does not mean that there is no actual delivery.
6	Transaction costs	Cost of forward contracts is based on bid - ask spread	Futures contracts entail brokerage fees for buy and sell order
7	Marking to market	Forward contracts are not subject to marking to market	Futures contracts are subject to marking to market in which the loss on profit is debited or credited in the margin account on daily basis due to change in price.
8	Margins	Margins are not required in forward contract.	In futures contracts every participants is subject to maintain

			margin as decided by the exchange authorities
9	Credit risk	In forward contract, credit risk is born by each party and therefore, every party has to bother for the credit worthiness	In futures contracts the transaction is a two way transaction, hence the parties need not to bother for the risk.

QUESTION NO. 12

What do you know about Swaptions and their uses?

- Swaptions are combination of the features of two derivative instruments, i.e., option and swap.
- A swaption is an option on an interest rate swap. It gives the buyer of the swaption the right but not obligation to enter into an interest rate swap of specified parameters (maturity of the option, notional principal, strike rate, and period of swap). Swaptions are traded over the counter, for both short and long maturity expiry dates, and for wide range of swap maturities.
- The price of a swaption depends on the strike rate, maturity of the option, and expectations about the future volatility of swap rates.
- The swaption premium is expressed as basis points

Uses of Swaptions:

1. Swaptions can be used as an effective tool to swap into or out of fixed rate or floating rate interest obligations, according to a treasurer's expectation on interest rates. Swaptions can also be used for protection if a particular view on the future direction of interest rates turned out to be incorrect.
2. Swaptions can be applied in a variety of ways for both active traders as well as for corporate treasures. Swap traders can use them for speculation purposes or to hedge a portion of their swap books. It is a valuable tool when a borrower has decided to do a swap but is not sure of the timing.
3. Swaptions have become useful tools for hedging embedded option which is common in the natural course of many businesses.
4. Swaptions are useful for borrowers targeting an acceptable borrowing rate. By paying an upfront premium, a holder of a payer's swaption can guarantee to pay a maximum fixed rate on a swap, thereby hedging his floating rate borrowings.
5. Swaptions are also useful to those businesses tendering for contracts. A business, would certainly find it useful to bid on a project with full knowledge of the borrowing rate should the contract be won.

QUESTION NO. 13

Write a short note on Debt Securitisation? or What are the advantages of Debt Securitisation? OR What is Securitisation? What are its various instruments ? OR Write a short note on Asset Securitisation

- **Meaning:** Securitisation is a process of pooling and repackaging homogeneous illiquid financial assets into marketable securities that can be sold to investors. Securitisation is the process by which financial assets are transformed into securities .Since through Securitisation , the illiquid financial assets or debtors are converted into Securities , it can also be called as " Debt or Asset Securitisation".

- **Process:** For example a bank lends ₹ 10 lacs each to 300 borrowers as part of its loan portfolio. The total debt thus on the books of the bank will be ₹ 30 crores. By way of securitization, the bank can break the entire portfolio of loan/debt of ₹ 30 crores into a paper of ₹ 300 each for instance, and market it in the secondary market to investors.
- Debt Securitisation will thus provide liquidity to the instrument.
- In other words Debt/Asset securitization is a method of recycling of funds. Securitisation is a process of transformation of illiquid assets into security, which may be traded later in the open market.
- **Steps involved in a Securitisation Process:**
The basic debt securitization process can be classified in the following three functions.
 - a) **The Origination Function:** A borrower seeks a loan from a finance company, bank, housing company or a lease from a leasing company. The creditworthiness of the borrower is evaluated and a contract is entered into with repayment schedule structured over the life of the loan.
 - b) **The Pooling Function:** Similar loans or receivables are clubbed together to create an underlying pool of assets. This pool is transferred in favour of a SPV - (Special Purpose Vehicle), which acts as a trustee for the investor.
 - c) **The Securitisation Function:** It is the SPV's job now to structure and issue the securities on the basis of the asset pool. The securities carry a coupon and an expected maturity, which can be asset based or mortgage based. These are generally sold to investors through merchant bankers. The investors interested in this type of securities are generally institutional investors like mutual funds, insurance companies etc. The originator usually keeps the spread available (i.e. difference) between yield from secured assets and interest paid to investors.
 - d) Generally the process of securitization is without recourse i.e. the investor bears the credit risk of default and the issuer is under an obligation to pay to investors only if the cash flows are received by issuer from the collateral.
- **Parties involved in Securitisation Process:**
 1. **The Originator:** This is the entity in whose books the assets , to be securitized , originate.
 2. **Special Purpose Vehicle (SPV):** This is the entity through which the securitization transaction is actually operated i.e. who buys the assets to be securitized & then issues marketable securities backed by those assets.
 3. **The Investor:** These are the entities that are looking for investment opportunity for their surplus funds. They buy the securities issued by SPV and get returns in the form of interest and principal repayment as per agreed schedule.
 4. **Other Parties:** Obligators, Rating Agencies, Administrator, Agent and Trustee.
- **Instruments of Securitisation:** Under this process securities issued by SPV are in the form of Pass Through Certificate (PTC), Pay Through Securities (PTS) and Stripped Securities. Securities may be Asset Backed Securities and Mortgaged Backed Securities.
 1. **Asset Backed Securities:** These are securities backed by other assets like credit card receivable , trade receivables etc.
 2. **Mortgage Backed Securities:** These are the securities where the assets collateralized are mortgage loans i.e loans secured by a mortgage of specified immovable property.
- **Benefits to the Originator:**
 1. The assets are shifted off the balance sheet, thus giving the originator recourse

- to **off balance sheet funding**.
- 2. It **converts illiquid assets to liquid portfolio**.
- 3. It facilitates better balance sheet management as assets are transferred off balance sheet facilitating **satisfaction of capital** adequacy norms.
- 4. The **originator's credit rating enhances**.

➤ **Benefits to the Investor:**

- 1. For the investor securitization **opens up new investment avenues**.
- 2. Though the investor bears the credit risk, the **securities are tied up to definite assets**.
- 3. Securitisation helps to convert a stream of cash receivables into a **source of long-term finance**.
- 4. Securities are rated by **Credit Rating Agencies** and it becomes easier for an investor to compare risk return profile and **make an informed choice**.

- **Recent Scenario:** In Indian context Debt Securitisation has began to take off. The ideal candidates for this are hire purchase and leasing companies, asset finance and real estate finance companies. The first securitization deal was structured by Citibank in 1991. National Housing Bank, Housing and Urban Development Corporation, LIC Housing and HDFC have emerged as key players in the securitization market. The experiment has already been initiated in India by the Housing Development Finance Corporation (HDFC) by selling a part of its loan to the Infrastructure Leasing and Financial Services Ltd. (ILFS) and has therefore become a pacesetter for other kinds of debt securitization as well. The Industrial Credit and Investment Corporation of India (ICICI) as well as other private financial companies have been trying similar deals for lease rentals.

QUESTION NO. 14

What is a re-financing ? Briefly explain indicating at least two institutions which offer such re-financing ? (Nov2006) (May 2008)

Meaning : "Re-financing" is a process by which a large financial institution provides funds or reimburses funds to another institution to help development, relief or other similar causes identified as the purpose of the former. It can also, in another way, be described as a wholesale distribution of financial assistance to a retailing institution. Often, governmental support or subsidized funding is reached to the ultimate beneficiaries, through such channel. It is also termed as whole-sale financing.

Institutions which offer Re-financing:

National Bank for Agriculture and Rural Development (NABARD) is a governmental organization established with the primary objective of financing the farm sector: it is an arm through which government extends certain concessions/privileges to the farming community. NABARD does not deal with farmers directly but deals with many banks such as scheduled and nationalized banks providing re-financing for quite a few schemes intended for the benefit of the agricultural sector. This is one example.

Small Industries Development Bank of India (SIDBI) is another governmental organization whose objective is to assist the development of small industries. It is another institution which is engaged in re-financing activities; it funds a few schemes intended for SIs through scheduled/nationalized banks.

QUESTION NO. 15

- 1. What are derivatives?**
- 2. Who are the users and what are the purposes of use?**
- 3. What is the difference between Cash and the Derivative Market ?**

1. Derivative is a product whose value is to be derived from the value of one or more basic variables called bases (underlying assets, index or reference rate). The underlying assets can be Equity, Forex, and Commodity.
- 2.

Users	Purpose
Corporation	To hedge currency risk and inventory risk
Individual Investors	For speculation, hedging and yield enhancement.
Institutional Investor	For hedging asset allocation, yield enhancement and to avail arbitrage opportunities.
Dealers	For hedging position taking, exploiting inefficiencies and earning dealer spreads.

3. The basic differences between Cash and the Derivative market are as follows:
 - a) In cash market tangible assets are traded whereas in derivative markets contracts based on tangible or intangibles assets like index or rates are traded.
 - b) In cash market, we can purchase even one share whereas in Futures and Options minimum lots are fixed.
 - c) Cash market is more risky than Futures and Options segment because in "Futures and Options" risk is limited.
 - d) Cash assets may be meant for consumption or investment. Derivative contracts are for hedging, arbitrage or speculation.
 - e) The value of derivative contract is always based on and linked to the underlying security. Though this linkage may not be on point-to-point basis.
 - f) In the cash market, a customer must open securities trading account with a securities depository whereas to trade futures a customer must open a future trading account with a derivative broker.
 - g) Buying securities in cash market involves putting up all the money upfront whereas buying futures simply involves putting up the margin money.
 - h) With the purchase of shares of the company in cash market, the holder becomes part owner of the company. While in future it does not happen.

QUESTION NO. 16

What is the significance of an underlying in relation to a derivative instrument? (May 2011)(4 Marks)

The underlying may be a share, a commodity or any other asset which has a marketable value which is subject to market risks. The importance of underlying in derivative instruments is as follows:

- ✓ All derivative instruments are dependent on an underlying to have value.
- ✓ The change in value in a forward contract is broadly equal to the change in value in the

underlying.

- ✓ In the absence of a valuable underlying asset the derivative instrument will have no value.
- ✓ On maturity, the position of profit/loss is determined by the price of underlying instruments. If the price of the underlying is higher than the contract price the buyer makes a profit. If the price is lower, the buyer suffers a loss.

QUESTION NO. 17

Explain briefly the advantages of holding securities in 'demat' form rather than in physical form.

Advantages of Holding Securities in 'Demat' Form: The Depositories Act, 1996 provides the framework for the establishment and working of depositories enabling transactions in securities in scripless (or demat) form. With the arrival of depositories on the scene, many of the problems previously encountered in the market due to physical handling of securities have been to a great extent minimized. In a broad sense, therefore, it can be said that 'dematting' has helped to broaden the market and make it smoother and more efficient.

From an individual investor point of view, the following are important advantages of holding securities in demat form:

- It is speedier and avoids delay in transfer
- It avoids lot of paper work.
- It saves on stamp duty.

From the issuer-company point of view also, there are significant advantages due to dematting, some of which are:

- Savings in printing certificates, postage expenses.
- Stamp duty waiver.
- Easy monitoring of buying/selling patterns in securities, increasing ability to spot takeover attempts and attempts at price rigging.

QUESTION NO. 18

a) Briefly explain 'Buy Back of Securities' and give the management objectives of buying Back Securities.

b) Explain the term 'Insider Trading' and why Insider Trading is punishable.

a) Buy Back of Securities: Companies are allowed to buy back equity shares or any other security specified by the Union Government. In India Companies are required to extinguish shares bought back within seven days. In USA Companies are allowed to hold bought back shares as treasury stock, which may be reissued. A company buying back shares makes an offer to purchase shares at a specified price. Shareholders accept the offer and surrender their shares.

The following are the management objectives of buying back securities:

1. To return excess cash to shareholders, in absence of appropriate investment opportunities.
2. To give a signal to the market that shares are undervalued.
3. To increase promoters holding, as a percentage of total outstanding shares, without additional investment. Thus, buy back is often used as a defense mechanism against potential takeover.
4. To change the capital structure.

b) Insider Trading: The insider is any person who accesses the price sensitive information of a company before it is published to the general public. Insider includes corporate officers, directors, owners of firm etc. who have substantial interest in the company. Even, persons who have access to non-public information due to their relationship with the company such as internal or statutory auditor, agent, advisor, analyst consultant etc. who have knowledge of material, 'inside' information not available to general public. Insider trading practice is the act of buying or selling or dealing in securities by as a person having unpublished inside information with the intention of making abnormal profit's and avoiding losses. This inside information includes dividend declaration, issue or buy back of securities, amalgamation, mergers or take over, major expansion plans etc.

The word insider has wide connotation. An outsider may be held to be an insider by virtue of is engaging himself in this practice on the strength of inside information.

Insider trading practices are lawfully prohibited. The regulatory bodies in general are imposing different fines and penalties for those who indulge in such practices. Insider trading which is an unethical practice resorted by those in power in corporates has manifested not only in India but elsewhere in the world causing huge losses to common investors thus driving them away from capital market. Therefore, it is punishable.

QUESTION NO. 19

How is a stock market index calculated? Indicate any two important stock market indices.

1. A base year is set along with a basket of base shares.
2. The changes in the market price of these shares is calculated on a daily basis.
3. The shares included in the index are those shares which are traded regularly in high volume.
4. In case the trading in any share stops or comes down then it gets excluded and another company's shares replace it.
5. Following steps are involved in calculation of index on a particular date:
 - Calculate market capitalization of each individual company comprising the index.
 - Calculate the total market capitalization by adding the individual market capitalization of all companies in the index.
 - Computing index of next day requires the index value and the total market capitalization of the previous day and is computed as follows:
 - $$\text{Index Values} = \text{Index on previous day} \times \frac{\text{Total Market Capitalisation for current day}}{\text{Total Market Capitalisation for Previous day}}$$
 - It should also be noted that Indices may also be calculated using the price weighted method. Here the share the share price of the constituent companies form the weights. However, almost all equity indices world-wide are calculated using the market capitalization weighted method.

Each stock exchange has a flagship index like in India Sensex of BSE and Nifty of NSE and outside India is Dow Jones, FTSE etc.

QUESTION NO. 20

What is the procedure for the book building process? Explain the recent changes made in the allotment process.

The modern and more popular method of share pricing these days is the **BOOK**

BUILDING route. After appointing a merchant banker as a book runner, the company planning the IPO, specifies the number of shares it wishes to sell and also mentions a price band. Investors place their orders in Book Building process that is similar to bidding at an auction. The willing investors submit their bids above the floor price indicated by the company in the price band to the book runner. Once the book building period ends, the book runner evaluates the bids on the basis of the prices received, investor quality and timing of bids. Then the book runner and the company conclude the final price at which the issuing company is willing to issue the stock and allocate securities. Traditionally, the number of shares is fixed and the issue size gets determined on the basis of price per share discovered through the book building process.

Public issues these days are targeted at various segments of the investing fraternity.

Companies now allot certain portions of the offering to different segments so that everyone gets a chance to participate. The segments are traditionally three - qualified institutional bidders (QIBs), high net worth individuals (HNIs) and retail investors (general public). Indian companies now have to offer about 50% of the offer to QIBs, about 15% to high net worth individuals and the remaining 35% to retail investors. Earlier retail and high net worth individuals had 25% each. Also the QIBs are allotted shares on a pro-rata basis as compared to the earlier norm when it was at the discretion of the company management and the investment bankers. These investors (QIB) also have to pay 10% margin on application. This is also a new requirement. Once the offer is completed, the company gets listed and investors and shareholders can trade the shares of the company in the stock exchange.

Chapter 6 - Security Analysis

QUESTION NO. 1

What is Fundamental Analysis ? What are the key variables that an investor must monitor in order to carry out his fundamental analysis? Mention the various techniques used in economic analysis (4 marks) (May 2011)

- ❖ **Fundamental Analysis** is based on the premise that the price of a share is based on the benefits the holders of the share is expected to receive in the future in the form of dividends. The present value of future dividends, computed at an appropriate discount rate to reflect the riskiness of the share, is called the intrinsic or fundamental value of the share.
- ❖ The fundamental analysts use the above models or some of their variations, for estimating the fundamental or intrinsic price or the fundamental price-earnings multiple of a security.
- ❖ **Decision To Be Taken By Fundamental Analysts:**
If the prevailing price or the P/E multiple of a security is higher than the estimated fundamental value, the security is overpriced, the decision in such case will be to sell such security.
If the prevailing price or the P/E multiple of a security is lesser than the estimated fundamental value, the security is underpriced, the decision in such case will be to buy such security.
- ❖ **Key Variables Of Fundamental Analysis:** The key variables that an investor must monitor in order to carrying out his fundamental analysis are :
 1. Economy Analysis
 2. Industry Analysis
 3. Firm/Company Analysis

1. Economy Analysis:

Factors Affecting Economic Analysis

- a) Growth Rates of National Income and Related Measure
- b) Growth Rates of Industrial Sector
- c) Inflation
- d) Monsoon

Some of the techniques used for economic analysis are:

- a) Anticipatory Surveys
- b) Barometer/Indicator Approach
- c) Leading Indicators
- d) Roughly Coincidental Indicators
- e) Lagging Indicators
- f) Economic Model Building Approach

2. Industry Analysis:

Factors Affecting Industry Analysis

- a) Product Life-Cycle
- b) Demand Supply Gap
- c) Barriers to Entry
- d) Government Attitude
- e) State of Competition in the Industry
- f) Cost Conditions and Profitability
- g) Technology and Research

Some of the techniques used for Industry Analysis are:

- a) Regression Analysis
- b) Input-Output Analysis

3. Firm/Company Analysis:

Factors Affecting Company Analysis

- a) Net Worth & Book Value
- b) Sources & Uses of funds
- c) Cross-Sectional & Time Series Analysis
- d) Size and Ranking,
- e) Growth Record,
- f) Financial Analysis,
- g) Quality of Management,
- h) Location and Labor-Management Relations,
- i) Pattern of Existing Stock Holding,
- j) Marketability of the Shares

Some of the techniques used for company analysis are:

- a) Correlation & Regression Analysis
- b) Trend Analysis
- c) Decision Tree Analysis

QUESTION NO. 2

Write a short note on Economic Analysis. Industry Analysis, Company Analysis? What are the various techniques are used in Economic Analysis? (RTP Nov10)(May 2011,4 Marks)

ECONOMIC ANALYSIS

Factors Affecting Economic Analysis:

- a) **Growth Rates of National Income and Related Measures:** For most purposes, what is important is the difference between the nominal growth rate quoted by GDP and the 'real' growth after taking inflation into account. The estimated growth rate of the economy would be a pointer to the prospects for the industrial sector, and therefore to the returns investors can expect from investment in shares.
- b) **Growth Rates of Industrial Sector:** This can be further broken down into growth-rates of various industries or groups of industries if required. The growth rates in various industries are estimated based on the estimated demand for its products.
- c) **Inflation:** Inflation is measured in terms of either wholesale prices (the Wholesale Price Index or WPI) or retail prices (Consumer Price Index or CPI). The demand in some industries, particularly the consumer products industries, is significantly influenced by the inflation rate. Therefore, firms in these industries make continuous assessment about inflation rates likely to prevail in the near future so as to fine-tune their pricing, distribution and promotion policies to the anticipated impact of inflation on demand for their products.
- d) **Monsoon:** Because of the strong forward and backward linkages, monsoon is of great concern to investors in the stock market too.

Techniques Used in Economic Analysis: Some of the techniques used for economic analysis are:

- a) **Anticipatory Surveys:** They help investors to form an opinion about the future state of the economy. It incorporates expert opinion on construction activities, expenditure on plant and machinery, levels of inventory - all having a definite bearing on economic activities. Also future spending habits of consumers are taken into account.
In spite of valuable inputs available through this method, it has certain drawbacks:
1. Survey results do not guarantee that intentions surveyed would materialize.
 2. They are not regarded as forecasts per se, as there can be a consensus approach by the investor for exercising his opinion.
- Continuous monitoring of this practice is called for to make this technique popular.
- b) **Barometer/Indicator Approach:** Various indicators are used to find out how the economy shall perform in the future. The indicators have been classified as under:
1. **Leading Indicators:** They lead the economic activity in terms of their outcome. They relate to the time series data of the variables that reach high/low points in advance of economic activity.
 2. **Roughly Coincidental Indicators:** They reach their peaks and troughs at approximately the same time in the economy.
 3. **Lagging Indicators:** They are time series data of variables that lag behind in their consequences vis-a-vis the economy. They reach their turning points after the economy has reached its own already.
- c) **Economic Model Building Approach:** In this approach, a precise and clear relationship between dependent and independent variables is determined. GNP model building or sectorial analysis is used in practice through the use of national accounting framework. The steps used are as follows:
1. Hypothesize total economic demand by measuring total income (GNP) based on political stability, rate of inflation, changes in economic levels.
 2. Forecasting the GNP by estimating levels of various components viz. consumption expenditure, gross private domestic investment, government purchases of goods/services, net exports.
 3. After forecasting individual components of GNP, add them up to obtain the forecasted GNP.
 4. Comparison is made of total GNP thus arrived with that from an independent agency for the forecast of GNP and then the overall forecast is tested for consistency. This is carried out for ensuring that both the total forecast and the component wise forecast fit together in a reasonable manner.

INDUSTRY ANALYSIS

When an economy grows, it is very unlikely that all industries in the economy would grow at the same rate. So it is necessary to examine industry specific factors, in addition to economy wide factors.

Factors Affecting Industry Analysis: The following factors may particularly be kept in mind while assessing the factors relating to an industry.

- a) **Product Life-Cycle:** An industry usually exhibits high profitability in the initial and growth stages, medium but steady profitability in the maturity stage and a sharp decline in profitability in the last stage of growth.
- b) **Demand Supply Gap:** Excess supply reduces the profitability of the industry because of the decline in the unit price realization, while insufficient supply tends to improve the profitability because of higher unit price realization.

- c) **Barriers to Entry:** Any industry with high profitability would attract fresh investments. The potential entrants to the industry, however, face different types of barriers to entry. Some of these barriers are innate to the product and the technology of production, while other barriers are created by existing firms in the industry.
- d) **Government Attitude:** The attitude of the government towards an industry is a crucial determinant of its prospects.
- e) **State of Competition in the Industry:** Factors to be noted are- firms with leadership capability and the nature of competition amongst them in foreign and domestic market, type of products manufactured viz. homogeneous or highly differentiated, demand prospects through classification viz customer-wise/area-wise, changes in demand patterns in the long/immediate/short run, type of industry the firm is placed viz. growth, cyclical, defensive or decline.
- f) **Cost Conditions and Profitability:** The price of a share depends on its return, which in turn depends on profitability of the firm. Profitability depends on the state of competition in the industry, cost control measures adopted by its units and growth in demand for its products. Factors to be considered are:
1. Cost allocation among various heads e.g. raw material, labors and overheads and their controllability. Overhead cost for some may be higher while for others labour may be so. Labour cost which depends on wage level and productivity needs close scrutiny.
 2. Product price.
 3. Production capacity in terms of installation, idle and operating.
 4. Level of capital expenditure required for maintenance/increase in productive efficiency. Investors are required to make a through analysis of profitability. This is carried out by the study of certain ratios such as G.P. Ratio, Operating Profit margin Ratio, R.O.E., Return on Total Capital etc.
- g) **Technology and Research:** They play a vital role in the growth and survival of a particular industry. Technology is subject to change very fast leading to obsolescence. Industries which update themselves have a competitive advantage over others in terms of quality, price etc. Things to be probed in this regard are:
1. Nature and type of technology used.
 2. Expected changes in technology for new products leading to increase in sales.
 3. Relationship of capital expenditure and sales over time. More capital expenditure means increase in sales.
 4. Money spent in research and development. Whether this amount relates to redundancy or not?
 5. Assessment of industry in terms of sales and profitability in short, immediate and long run.

Techniques Used in Industry Analysis: The techniques used for analyzing the industry wide factors are:

- a) **Regression Analysis:** Investor diagnoses the factors determining the demand for output of the industry through product demand analysis. Factors to be considered are GNP, disposable income, per capita consumption income, price elasticity of demand. For identifying factors affecting demand, statistical techniques like regression analysis and correlation are used.
- b) **Input - Output Analysis:** It reflects the flow of goods and services through the economy intermediate steps in production process as goods proceed from raw material stage through

final consumption. This is carried out to detect changing patterns/trends indicating growth/decline of industries.

COMPANY ANALYSIS

Economic and industry framework provides the investor with proper background against which shares of a particular company are purchased. This requires careful examination of the company's quantitative and qualitative fundamentals.

- a) Net Worth and Book Value:** Net Worth is sum of equity share capital, preference share capital and free reserves less intangible assets and any carry forward of losses. The total net worth divided by the number of shares is the much talked about book value of a share. Though the book value is often seen as an indication of the intrinsic worth of the share, this may not be so for two major reasons. First, the market price of the share reflects the future earnings potential of the firm which may have no relationship with the value of its assets. Second, the book value is based upon the historical costs of the assets of the firm and these may be gross underestimates of the cost of the replacement or resale values of these assets.
- b) Sources and Uses of Funds:** The identification of sources and uses of funds is known as Funds Flow Analysis. One of the major uses of funds flow analysis is to find out whether the firm has used short term sources of funds to finance long-term investments. Such methods of financing increases the risk of liquidity crunch for the firm, as long-term investments, because of the gestation period involved may not generate enough surplus in time to meet the short-term liabilities incurred by the firm. Many firm has come to grief because of this mismatch between the maturity periods of sources and uses of funds.
- c) Cross-Sectional and Time Series Analysis:** One of the main purposes of examining financial statements is to compare two firms, compare a firm against some benchmark figures for its industry and to analyze the performance of a firm over time. The techniques that are used to do such proper comparative analysis are: common-sized statement, and financial ratio analysis.
- d) Size and Ranking:** A rough idea regarding the size and ranking of the company within the economy, in general, and the industry, in particular, would help the investment manager in assessing the risk associated with the company. In this regard the net capital employed, the net profits, the return on investment and the sales figures of the company under consideration may be compared with similar data of other companies in the same industry group. It may also be useful to assess the position of the company in firms of technical know-how, research and development activity and price leadership.
- e) Growth Record:** The growth in sales, net income, net capital employed and earning per share of the company in the past few years should be examined. The following three growth indicators may be particularly looked into: **(a)** Price earnings ratio, **(b)** Percentage growth rate of earnings per annum, and **(c)** Percentage growth rate of net block.
- f) Financial Analysis:**
 - An analysis of its financial statements for the past few years would help the investment manager in understanding the financial solvency and liquidity, the efficiency with which the funds are used, the profitability, the operating efficiency and the financial and operating leverages of the company. For this purpose, certain fundamental ratios have to be calculated.

- From the investment point of view, the most important figures are earnings per share, price earning ratios, yield, book value and the intrinsic value of the share. These five elements may be calculated for the past 10 years or so and compared with similar ratios computed from the financial accounts of other companies in the industry and with the average ratios for the industry as a whole.
- Various other ratios to measure profitability, operating efficiency and turnover efficiency of the company may also be calculated. The return on owners' investment, capital turnover ratio and the cost structure ratios may also be worked out.
- To examine the financial solvency or liquidity of the company, the investment manager may work out current ratio, liquidity ratio, debt-equity ratio, etc. These ratios will provide an overall view of the company to the investment analyst. He can analyze its strengths and weaknesses and see whether it is worth the risk or not.

g) Quality of Management: This is an intangible factor. Yet it has a very important bearing on the value of the shares. Every investment manager knows that the shares of certain business houses command a higher premium than those of similar companies managed by other business houses. This is because of the quality of management, the confidence that investors have in a particular business house, its policy vis-a-vis its relationship with the investors, dividend and financial performance record of other companies in the same group, etc. Quality of management has to be seen with reference to the experience, skills and integrity of the persons at the helm of affairs of the company.

h) Location and Labour-Management Relations: The locations of the company's manufacturing facilities determines its economic viability which depends on the availability of crucial inputs like power, skilled labour and raw-materials, etc. Nearness to markets is also a factor to be considered. In the past few years, the investment manager has begun looking into the state of labour management relations in the company under consideration and the area where it is located.

i) Pattern of Existing Stock Holding: An analysis of the pattern of existing stock holdings of the company would also be relevant. This would show the stake of various parties in the company.

j) Marketability of the Shares: Another important consideration for an investment manager is the marketability of the shares of the company. Mere listing of a share on the stock exchange does not automatically mean that the share can be sold or purchased at will. There are many shares which remain inactive for long periods with no transactions being effected.

Techniques Used in Company Analysis: Through the use of statistical techniques the company wide factors can be analyzed. Some of the techniques are discussed as under:

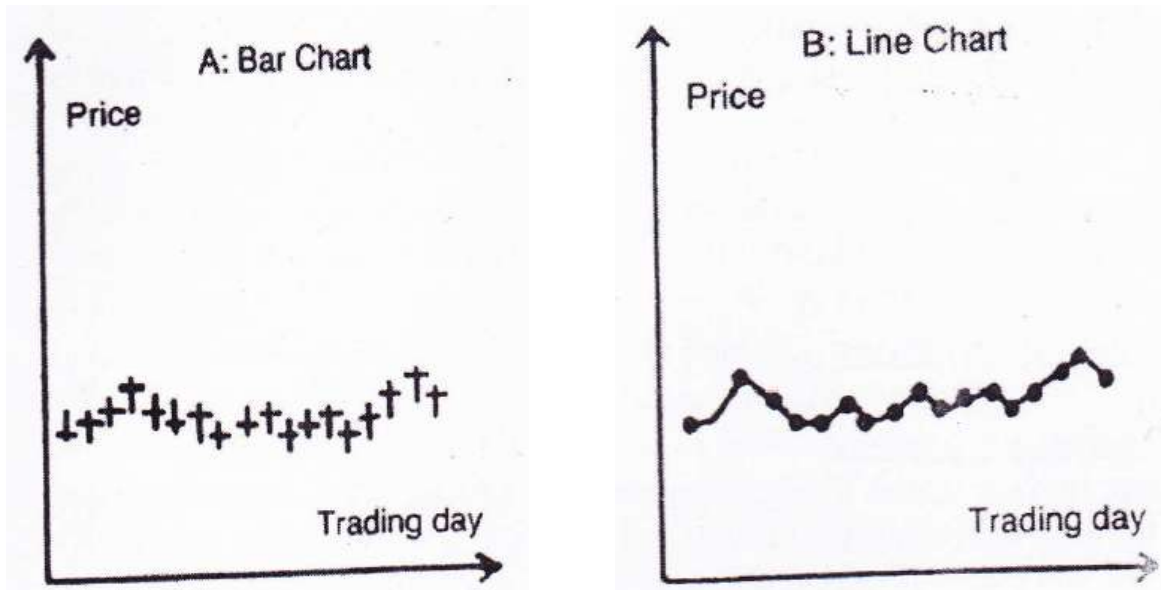
- 1. Correlation & Regression Analysis:** Simple regression is used when inter relationship covers two variables. For more than two variables, multiple regression analysis is followed. Here the inter relationship between variables belonging to economy, industry and company are found out. The main advantage in such analysis is the determination of the forecasted values along with testing the reliability, of the estimates.
- 2. Trend Analysis:** The relationship of one variable is tested over time using regression analysis. It gives an insight to the historical behavior of the variable.
- 3. Decision Tree Analysis:** In decision tree analysis, the decision is taken sequentially with probabilities attached to each sequence. To obtain the probability of final outcome,

various sequential decisions given along with probabilities, is to be multiplied and then summed up.

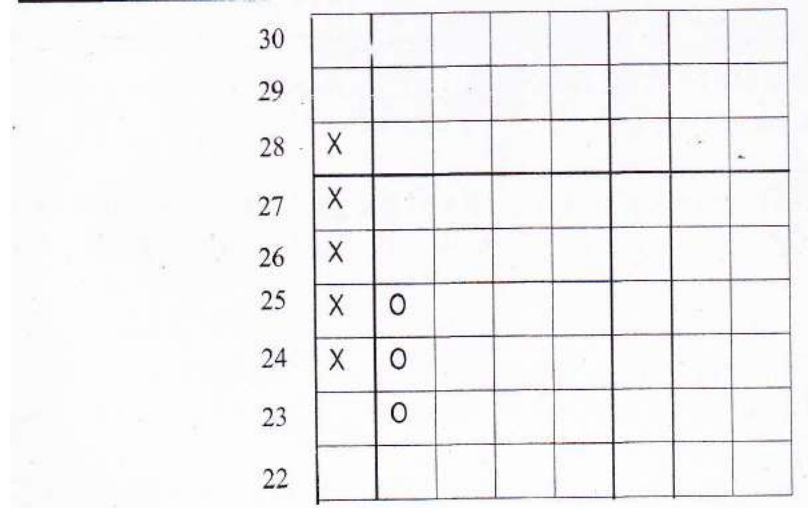
QUESTION NO. 3

Explain briefly 'Technical Analysis' to Portfolio Management? or Write a short note on Evaluation of Technical Analysis ? or What are the charts used by Technical analysts ?

- **Meaning:** Technical Analysis is a method of share price movements based on a study of price graphs or charts on the assumption that share price trends are repetitive, that what is seen to have happened before is likely to be repeated. In other words Technical analysis is based on the proposition that the securities prices and volume in past suggest their future price behavior.
- **Two Basic Question:** The two basic Question that it seeks to answer are:
 1. is there a discernible trend in the prices?
 2. if there is, then are there indications that the trend would reverse?
- **Methods Used:** The methods used to answer these Questions are visual and statistical. The visual methods are based on examination of a variety of charts to make out patterns, while the statistical procedures analyze price and return data to make trading decisions.
- Technical analysts use **three types of charts** for analyzing data. They are:
 1. **Bar Chart:** In a bar chart, a vertical line (bar) represents the lowest to the highest price, with a short horizontal line protruding from the bar representing the closing price for the period. Since volume and price data are often interpreted together, it is a common practice to plot the volume traded, immediately below the line.
 2. **Line Chart:** In a line chart, lines are used to connect successive day's prices. The closing price for each period is plotted as a point. These points are joined by a line to form the chart. The period may be a day, a week or a month.
 3. **Point and Figure Chart:**
 - ✓ Point and Figure charts are more complex than line or bar charts.
 - ✓ They are used to detect reversals in a trend.
 - ✓ For plotting a point and figure chart, we have to first decide the box size and the reversal criterion. The box size is the value of each box on the chart, for example each box could be Re. 1, ₹2 or ₹ 0.50. The smaller the box size, the more sensitive would the chart be to price change. The reversal criterion is the number of boxes required to be retraced to record prices in the next column in the opposite direction.
 - ✓ A chart that plots day-to-day price movements without taking into consideration the passage of time.
 - ✓ Point and figure charts are composed of a number of columns that either consist of a series of stacked Xs or Os. A column of Xs is used to illustrate a rising price, while Os represent a falling price. X's and O's never appear in the same column, levels.
 - ✓ This type of chart is used to filter out non-significant price movements, and enables the trader to easily determine critical support and resistance levels. Traders will place orders when the price moves beyond identified support/resistance



Point and Figure Chart:



QUESTION NO. 4

What are the various forms of Market indicators?

- Breadth Index:** It is an index that covers all securities traded. It is computed by dividing the net advances or declines in the market by the number of issues traded. The breadth index either supports or contradicts the movement of the Dow Jones Averages. If it supports the movement of the Dow Jones Averages, this is considered sign of technical strength and if it does not support the averages, it is a sign of technical weakness i.e. a sign that the market will move in a direction opposite to the Dow Jones Averages. The breadth index is an audition to the Dow Theory and the movement of the Dow Jones Averages.
- Volume of Transactions:** The volume of shares traded in the market provides useful clues on how the market would behave in the near future. A rising index/price with increasing volume would signal buy behavior because the situation reflects an unsatisfied demand in the market. Similarly, a falling market with increasing volume signals a bear market and the prices would be expected to fall further. Arising market with decreasing volume indicates a bull market while a

falling market with dwindling volume indicates a bear market. Thus, the volume concept is best used with another market indicator, such as the Dow Theory.

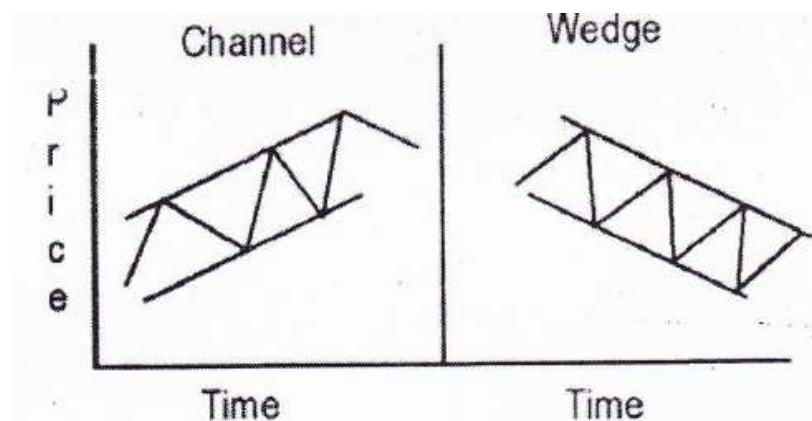
3. **Confidence Index:** It is supposed to reveal how willing the investors are to take a chance in the market. It is the ratio of high-grade bond yields to low-grade bond yields. It is used by market analysts as a method of trading or timing the purchase and sale of stock, and also, as a forecasting device to determine the turning points of the market. A rising confidence index is expected to precede a rising stock market, and a fall in the index is expected to precede a drop in stock prices. A fall in the confidence index represents the fact that low-grade bond yields are rising faster or falling more slowly than high grade yields. The confidence index is usually, but not always a leading indicator of the market. Therefore, it should be used in conjunction with other market indicators.
4. **Relative Strength Analysis:** The relative strength concept suggests that the prices of some securities rise relatively faster in a bull market or decline more slowly in a bear market than Other securities i.e. some securities exhibit relative strength. Investors will earn higher returns by investing in securities which have demonstrated relative strength in the past because the relative strength of a security tends to remain undiminished over time. Relative strength can be measured in several ways. Calculating rates of return and classifying those securities with historically high average returns as securities with high relative strength is one of them. Even ratios like security relative to its industry and security relative to the entire market can also be used to detect relative strength in a security or an industry.
5. **Odd - Lot Theory:** This theory is a contrary - opinion theory. It assumes that the average person is usually wrong and that a wise course of action is to pursue strategies contrary to popular opinion. The odd-lot theory is used primarily to predict tops in bull markets, but also to predict reversals in individual securities.

QUESTION NO. 5

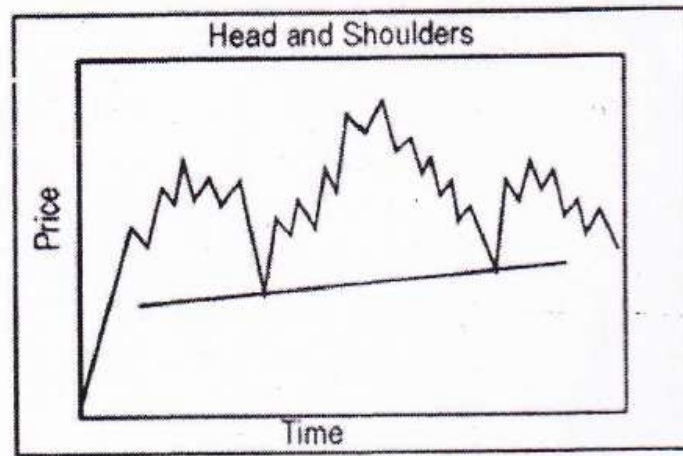
Name some price patterns documented by technical analysts ?

Interpreting Price Patterns: There are numerous price patterns documented by technical analysts but only a few and important of them have been discussed here:

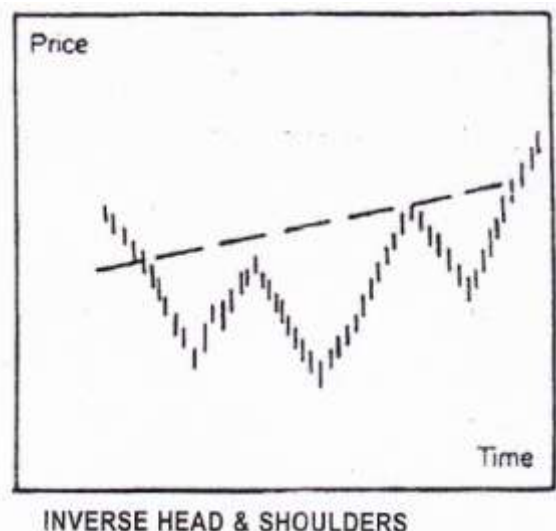
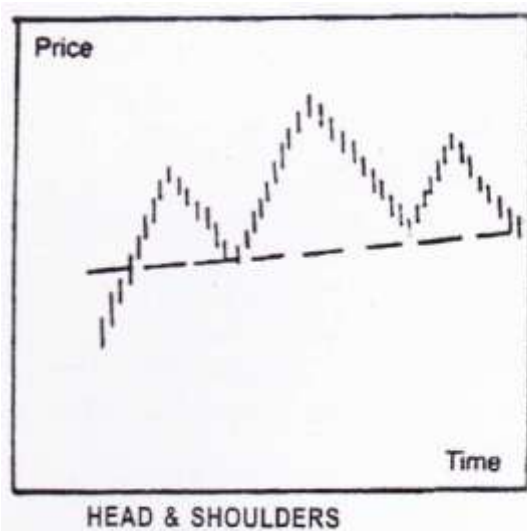
1. **Channel:** A series of uniformly changing tops and bottoms gives rise to a channel formation. A downward sloping channel would indicate declining prices and an upward sloping channel would imply rising prices.



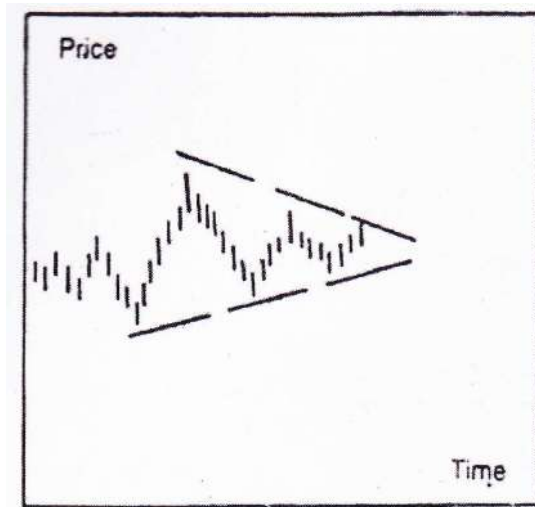
2. **Wedge:** A wedge is formed when the tops (resistance levels) and bottoms (support levels) change in opposite direction (that is, if the tops, are decreasing then the bottoms are increasing and vice versa), or when they are changing in the same direction at different rates over time.
3. **Head and Shoulders:** It is a distorted drawing of a human form, with a large lump (for head) in the middle of two smaller humps (for shoulders). This is perhaps the single most important pattern to indicate a reversal of price trend. The neckline of the pattern is formed by joining points where the head and the shoulders meet. The price movement after the formation of the second shoulder is crucial. If the price goes below the neckline, then a drop in price is indicated, with the drop expected to be equal to the distance between the top of the head and the neckline.



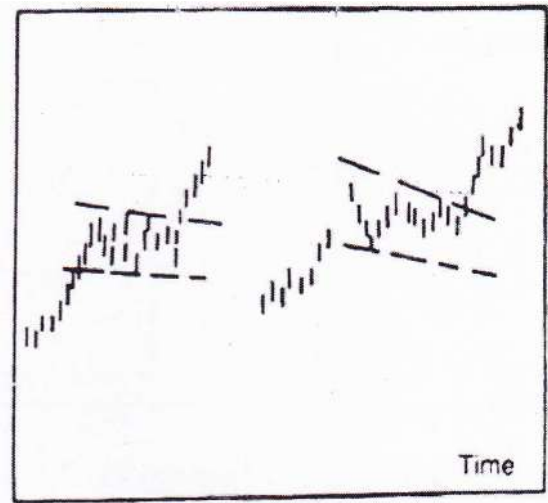
- a) **Head and Shoulder Top Pattern:** This has a left shoulder, a head and a right shoulder. Such formation represents bearish development. If the price falls below the neck line (line drawn tangentially to the left and right shoulders) a price decline is expected. Hence it's a signal to sell.
- b) **Inverse Head and Shoulder Pattern:** As the name indicates this formation, it is an inverse of head and shoulder top formation. Hence it reflects a bullish development. The price rise to above the neck line suggests price rise is imminent and a signal to purchase.



4. **Triangle or Coil Formation:** This formation represents a pattern of uncertainty-and is difficult to predict which way the price will break out.
5. **Flags and Pennants Form:** This form signifies a phase after which the previous price trend is likely to continue.

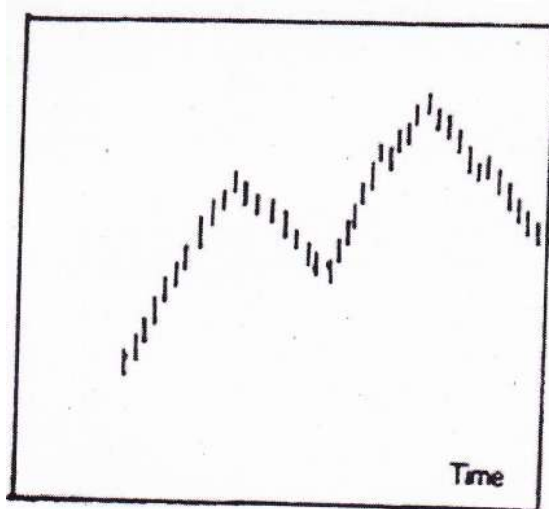


TRIANGLE OR COIL

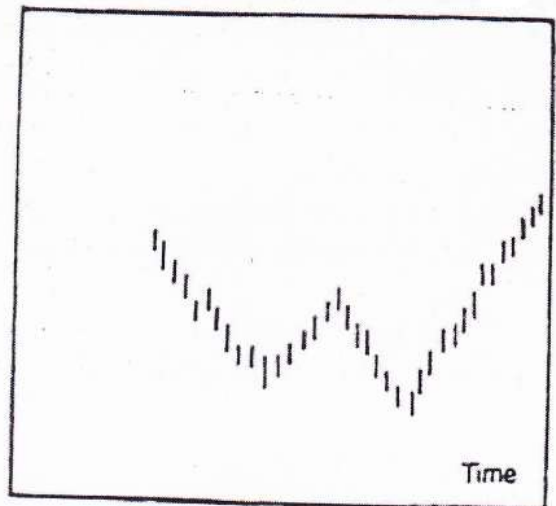


FLAG & PENNANT

6. **Double Top Form:** This form represents a bearish development, signals that price is expected to fall.
7. **Double Bottom Form:** This form represents bullish development signaling price is expected to rise.



DOUBLE TOP



DOUBLE BOTTOM

8. GAP:

- ✓ A Gap is the difference between the opening price on a trading day and the closing price of the previous trading day.
- ✓ The wider the gap the stronger the signal for a continuation of the observed trend.

- ✓ On a rising market, if the opening price is considerably higher than the previous closing price, it indicates that investors are willing to pay a much higher price to acquire the scrip.
- ✓ Similarly, a gap in a falling market is an indicator of extreme selling pressure.
- ✓ Gap Down / Down Gap: An opening price that is below the prior day closing price.
- ✓ Gap Up / Up Gap: An opening price that is above the prior day closing price.

QUESTION NO. 6

Write a short note on Momentum Analysis ?

- ❖ Momentum measures the speed of price change and provides a leading indicator of changes in trend.
- ❖ The momentum line leads price action frequently enough to signal a potential trend reversal in the market.
- ❖ Momentum indicators can warn of dormant strength or weakness in the price well ahead of the turning point.
- ❖ At extreme positive values, momentum implies an overbought position; at extreme negative values, an oversold position.

Interpretation of Momentum Line:

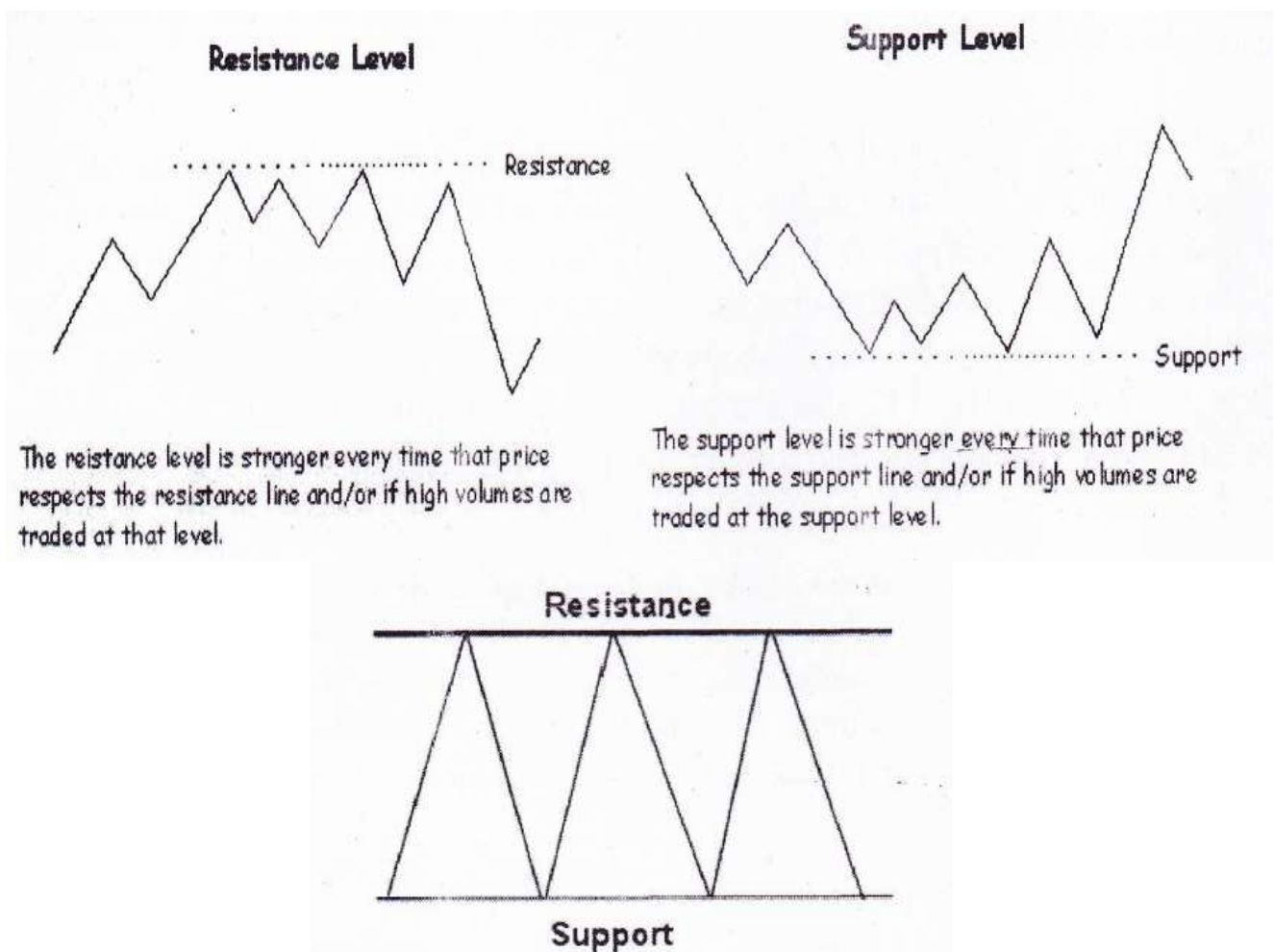
- ✓ A strongly trending market acts like a pendulum; the move begins at a fast pace, with strong momentum. It gradually slows down, or loses momentum, stops and reverses course.
 - ✓ The momentum line is always a step ahead of the price movement. It leads the advance or decline in prices and levels off while the current price trend is still in effect. It then begins to move in the opposite direction as prices begin to level off.
 - ✓ The 10 day momentum line fluctuates on an open scale around a zero line. When the latest closing price is higher than that of 10 days ago, a positive value is plotted above the zero line. If the latest close is lower than 10 days previous, a negative value is plotted.
 - ✓ Ten days or periods are usually used in calculating momentum, but any time period can be employed. The shorter the time frame used the more sensitive momentum becomes to short term fluctuations with more marked oscillations. Oscillator swings are smoother and more stable when a longer number of days are used.
1. **Upward Momentum:** When an up trending momentum line begins to flatten out it means that the new gains being achieved by the latest closing prices are the same as the gains 10 days earlier. The rate of upward momentum has leveled off even though prices may still be advancing. When the momentum line begins to drop further, below the zero line, the uptrend in prices could still be in force, but the last price gains are less than those of 10 days ago. The uptrend is losing momentum.
 2. **Downward Momentum:** When the momentum line moves below the zero line, the latest close is now under the close of 10 days ago and a short term downtrend is in effect. As momentum continues to drop farther below the zero line, the downtrend gains momentum. The downtrend decelerates when the line begins to turn around.

QUESTION NO.7

Write a short note on SUPPORT AND RESISTANCE?

- Support and resistance is one of the most widely used concepts in trading.

- When the index/price goes down from a peak, the peak becomes the resistance level. Resistance levels act like a ceiling for the price of a stock. As the price rises up to a resistance level, it tends to stop, turn around and move lower.
- When the index/price starts falling, the lowest value reached becomes the support level. Support levels act like a floor for the price of stock. As the price of a stock drops down to a support level it tends to stop at that point, turn around and move higher.
- The price is then expected to move between these two levels.
- Whenever the price approaches the resistance level, there is a selling pressure because all investors who failed to sell at the high would be keen to liquidate, while whenever the price approaches the support level, there is a buying pressure as all those investors who failed to buy at the lowest price would like to purchase the share.
- Support levels indicate the price where the most of investors believe that prices will move higher. Resistance levels indicate the price at which the most of investors feel prices will move lower.
- A breach of these levels indicates a distinct departure from status quo, and an attempt to set newer levels. When a resistance level is successfully broken through, that level becomes a support level. Similarly, when a support level is successfully broken through, that level becomes a resistance level.
- Support and resistance levels can be identified by trend lines.



QUESTION NO. 8

Explain the different challenges to Efficient Market Theory.

Information inadequacy - Information is neither freely available nor rapidly transmitted to all participants in the stock market. There is a calculated attempt by many companies to circulate misinformation. Other challenges are as follows:

- 1. Limited information processing capabilities-** Human information processing capabilities are sharply limited. According to Herbert Simon every human organism lives in an environment which generates millions of new bits of information every second but the bottle necks of the perceptual apparatus does not admit more than thousand bits per seconds and possibly much less.
David Dreman maintained that under conditions of anxiety and uncertainty, with a vast interacting information grid, the market can become a giant.
- 2. Irrational Behavior-** It is generally believed that investors' rationality will ensure a close correspondence between market prices and intrinsic values. But in practice this is not true. J. M. Keynes argued that all sorts of consideration enter into the market valuation which is in no way relevant to the prospective yield. This was confirmed by L. C. Gupta who found that the market evaluation processes work haphazardly almost like a blind man firing a gun. The market seems to function largely on hit or miss tactics rather than on the basis of informed beliefs about the long term prospects of individual enterprises.
- 3. Monopolistic Influence-** A market is regarded as highly competitive. No single buyer or seller is supposed to have undue influence over prices. In practice, powerful institutions and big operators wield great influence over the market. The monopolistic power enjoyed by them diminishes the competitiveness of the market.

QUESTION NO. 9

Write short notes on Zero coupon bonds.

As name indicates these bonds do not pay interest during the life of the bonds. Instead, zero coupon bonds are issued at discounted price to their face value, which is the amount a bond will be worth when it matures or comes due. When a zero coupon bond matures, the investor will receive one lump sum (face value) equal to the initial investment plus interest that has been accrued on the investment made. The maturity dates on zero coupon bonds are usually long term. These maturity dates allow an investor for a long range planning. Zero coupon bonds issued by banks, government and private sector companies. However, bonds issued by corporate sector carry a potentially higher degree of risk, depending on the financial strength of the issuer and longer maturity period, but they also provide an opportunity to achieve a higher return.

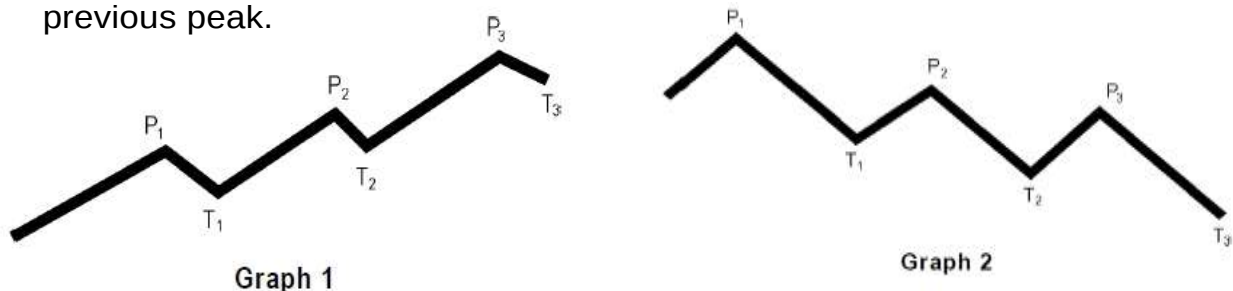
Chapter 7 - Portfolio Theory

QUESTION NO. 1

What is the Dow Jones Theory to Portfolio Management?

- ❖ The Dow Jones Theory is probably the most popular theory regarding the behavior of stock market Prices. The theory derives its name from Charles H. Dow, who established the Dow Jones & Co., and was the first editor of the Wall Street Journal- a leading publication on financial and economic matters in the U.S.A.
- ❖ The Dow Theory is one of the oldest and most famous technical theories.
- ❖ It is a helpful tool for determining the relative strength of the stock market.
- ❖ The Dow Theory is based upon the movements of two indices, constructed by Charles Dow, Dow Jones Industrial Average (DJIA) and Dow Jones Transportation Average (DJTA).
- ❖ The Dow Theory's purpose is to determine where the market is and where it is going.
- ❖ The Dow Jones theory classifies the movements of the prices on the share market into three major categories:

1. Primary Movements : They reflect the trend of the stock market & last from one year to three years, or sometimes even more. During a bull phase, the basic trend is that of rise in prices. Graph 1 shows the behavior of stock market prices in bull phase. As can be seen from the graph that prices do not rise consistently even in a bull phase. They rise for some time and after each rise, they fall. However, the falls are of a lower magnitude than rise. As a result, prices reach higher levels with each rise. Once the prices have risen very high, the bear phase is bound to start, i.e. price will start falling. Graph 2 shows the typical behavior of prices on the stock exchange in the case of a bear phase. It would be seen that prices are not falling consistently and after each fall, there is a rise in prices. However, the rise is not much as to take the prices higher than the previous peak.



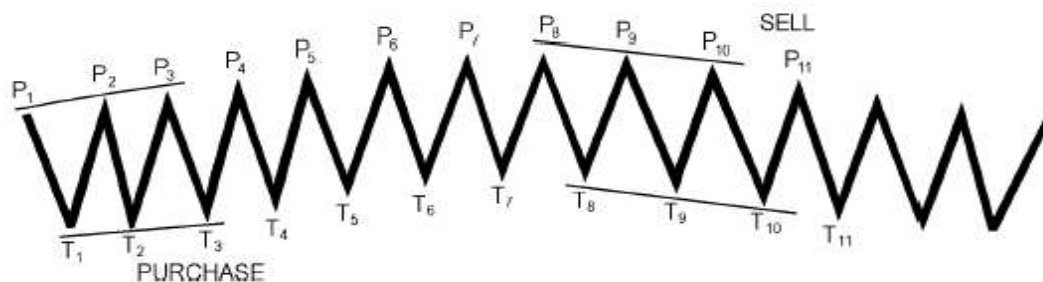
2. Secondary Movements: We have seen that even when the primary trend is upward, there are also downward movements of prices. Similarly, even where the primary trend is downward, there is upward movements of prices also. These movements are known as secondary movements and are shorter in duration and are opposite in direction to the primary movements. These movements normally last from three weeks to three months and ranges from 1/3 (33 %) to 2/3 (66 %) of the previous advance in a bull market or previous fall in the bear market.

Hence in Graph 1 above, Primary Trend is Rising and in Graph 2, Primary Trend is Falling

Hence in Graph 1 above, Secondary Trend is Falling and in Graph 2, Secondary Trend is Rising

- 3. Daily Movements:** There are irregular fluctuations which occur every day in the market. These fluctuations are without any definite trend. Thus if the daily share market price index for a few months is plotted on the graph it will show both upward and downward fluctuations. These fluctuations are the result of speculative factors. An investment manager really is not interested in the short run fluctuations in share prices since he is not a speculator. It may be reiterated that anyone who tries to gain from short run fluctuations in the stock market, can make money only by sheer chance. Speculation is beyond the scope of the job of an investment manager.

Timing of investment decisions on the basis of Dow Jones Theory: Dow Jones theory identifies the turn in the market prices by seeing whether the successive peaks and troughs are higher or lower than earlier. Consider the following graph:



Graph 3

According to the theory, the investment manager should purchase investments when the prices are at T1. At this point, he can ascertain that the bull trend has started, since T2 is higher than T1 and P2 is higher than P1.

Similarly, when prices reach P7 he should make sales. At this point he can ascertain that the bearish trend has started, since P9 is lower than P8 and T8 is lower than T7. Ideally speaking, the investment manager would like to purchase shares at a time when they have reached the lowest trough and sell them at a time when they reach the highest peak. However, in practice, this seldom happens. Therefore, he has to time his decision in such a manner that he buys the shares when they are on the rise and sells them when they are on the fall. It means that he should be able to identify exactly when the falling or the rising trend has begun.

❖ Benefit Of Dow- Jones Theory:

- Timings of Investments:** Investor can choose the appropriate time for his investment/divestment. Investment should be made in shares when their prices have reached the lowest level, and sell them at a time when they reached the highest peak.
- Identification of Trend:** Using Dow-Jones theory, the correct and appropriate movement in the Market Prices can be identified, and depending on the investors preference, decisions can be taken.

QUESTION NO. 2

Write a short note on Asset Allocation Strategies ?

Many portfolios containing equities also contain other asset categories, so the management factors are not limited to equities. There are four asset allocation strategies :

- 1. Integrated Asset Allocation:** Under this strategy, capital market conditions and investor objectives and constraints are examined and the allocation that best

serves the investor's needs while incorporating the capital market forecast is determined.

2. **Strategic Asset Allocation:** Under this strategy, optimal portfolio mixes based on returns, risk, and covariance is generated using historical information and adjusted periodically to restore target allocation within the context of the investor's objectives and constraints.
3. **Tactical Asset Allocation:** Under this strategy, investor's risk tolerance is assumed constant and the asset allocation is changed based on expectations about capital market conditions.
4. **Insured Asset Allocation:** Under this strategy, risk exposure for changing portfolio values (wealth) is adjusted; more value means more ability to take risk.

QUESTION NO. 3

Write a short note on Hedge Funds ?

- ❖ Hedge Fund is an aggressively managed portfolio of investments that uses advanced investment strategies such as leverage, long, short and derivative positions in both domestic and international markets with the goal of generating high returns (either in an absolute sense or over a specified market benchmark).
- ❖ In other words, A hedge fund is a fund that can take both long and short positions, use arbitrage, buy and sell undervalued securities, trade options or bonds, and invest in almost any opportunity in any market where it foresees impressive gains at reduced risk.
- ❖ Some of the points relating to Hedge Funds :
 1. Hedge fund strategies vary enormously- many, but not all, hedge against market downturns - especially important today with volatility and anticipation of corrections in overheated stock markets.
 2. The primary aim of most hedge funds is to reduce volatility and risk while attempting to preserve capital and deliver positive (absolute) returns under all market conditions.
 3. The popular misconception is that all hedge funds are volatile - that they all use global macro strategies and place large directional bets on stocks, currencies, bonds, commodities or gold, while using lots of leverage. In reality, less than 5% of hedge funds are global macro funds. Most hedge funds use derivatives only for hedging or don't use derivatives at all, and many use no leverage.
- ❖ **Benefits of Hedge Funds:** There are many advantages of hedge funds. Some of the important advantages are:
 1. Many hedge fund strategies have the ability to **generate positive returns** in both rising and falling equity and bond markets.
 2. Inclusion of hedge funds in a balanced portfolio **reduces overall portfolio risk and volatility and increases returns**.
 3. Huge variety of hedge fund investment styles - many uncorrelated with each other - **provides investors with a wide choice of hedge fund strategies to meet their investment objectives**. Academic research proves hedge funds have higher returns and lower overall risk than traditional investment funds.
 4. Hedge funds provide an **ideal long-term investment solution**, eliminating the need to correctly time entry and exit from markets.
 5. Adding hedge funds to an investment portfolio **provides diversification** not otherwise available in traditional investing.

- ❖ **Main Features of Hedge Funds:** The key characteristics of hedge funds can be stated as follows:
1. Hedge Funds **utilize a variety of financial instruments to reduce risk, enhance returns and minimize the correlation with equity and bond markets**. Many hedge funds are flexible in their investment options (can use short selling, leverage, derivatives such as puts, calls, options, futures, etc.).
 2. Hedge funds vary enormously in terms of investment returns, volatility and risk. Many, but not all, hedge fund strategies tend to **hedge against downturns in the markets being traded**.
 3. Many hedge funds have the **ability to deliver non-market correlated returns**.
 4. Many hedge funds have as an **objective consistency of returns and capital preservation** rather than magnitude of returns.
 5. Most hedge funds are **managed by experienced investment professionals** who are generally disciplined and diligent.
 6. Pension funds, endowments, insurance companies, private banks and high net worth individuals and families invest in hedge funds to **minimize overall portfolio volatility and enhance returns**.
 7. Most **hedge fund managers are highly specialized** and trade only within their area of expertise and competitive advantage.
 8. **Hedge funds benefit by heavily** linking hedge fund managers' remuneration towards performance incentives, thus **attracting the best brains in the investment business**. In addition, hedge fund managers usually have their own money invested in their fund.

QUESTION NO. 4

What is the Difference Between Hedge Funds and Mutual Funds ?

- ❖ Hedge funds are like mutual funds in two respects:
1. they are pooled investment vehicles (i.e. several investors entrust their money to a manager) and
 2. they invest in publicly traded securities.

But there are important differences between a hedge fund and a mutual fund.

1. **Investors give hedge funds the freedom to pursue absolute return strategies. While Mutual Funds Seek Relative Returns**
2. Unlike mutual funds, which are "long-only" (make only buy-sell decisions), a **hedge fund engages in more aggressive strategies and positions**, such as short selling, trading in derivative instruments like options and using leverage (borrowing) Leveraging and other higher-risk investment strategies are a hallmark of hedge fund management.
3. Hedge funds are more popular in bear markets. **In a bull market**, hedge funds may not perform as well as mutual funds, but in a bear market - taken as a group or asset class - they should do better than mutual funds because they hold short positions and hedges.
4. Hedge funds are "liberated" with respect to registration, investment positions, liquidity and fee structure. **Hedge funds in general are not registered** with the authorities like in USA with SEC. Mutual funds are heavily regulated by the SEC (Securities & Exchange Commission).
5. Furthermore, **hedge funds are prohibited from soliciting or advertising to a general audience**. Hedge funds aren't supposed to publicly market themselves.

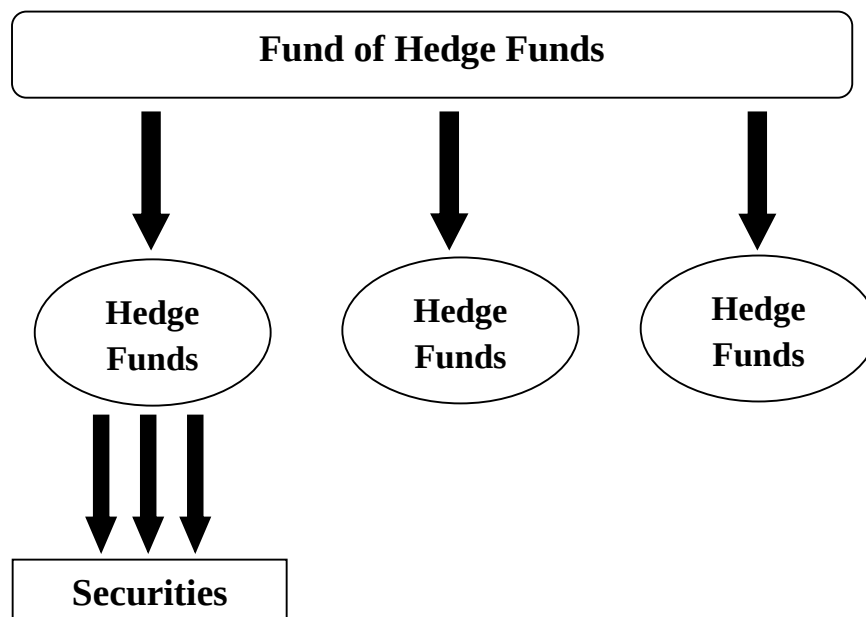
Mutual funds advertise heavily.

6. **In hedge funds**, liquidity is a key concern for investors. Liquidity provisions vary, but **invested funds may be difficult to withdraw "at will"**.
7. **Hedge funds are more expensive** than Mutual Funds.
8. Hedge funds are **private investment pools** that apply aggressive investment strategies and leverage. **Mutual funds are public investment companies** that typically invest in stocks, bonds and cash.
9. Typically hedge funds are used by **wealthy individuals**. The US government only allows high net worth individuals and institutional investors to invest in them. However anyone can invest in mutual funds
10. Hedge Funds are **not required to make periodic reports under the regulations**. Mutual funds report their prices daily.

QUESTION NO. 5

Write a short note on Funds Of Hedge Funds?

- ❖ Investing in a single hedge fund requires time-consuming, due diligence and concentrates risk, funds of hedge funds have become popular.
- ❖ These are pooled funds that allocate their capital among several hedge funds, usually 15 to 25 different hedge funds.
- ❖ Unlike the underlying hedge funds, these vehicles are often registered with the regulatory authorities like SEC in US and promoted to individual investors.
- ❖ Sometimes called a "retail" fund of funds, the net worth and income tests may be lower than usual.
- ❖ The **advantages of funds** of hedge funds include automatic diversification, monitoring efficiency and selection expertise. Because these funds are invested in a minimum of around eight funds, the failure or underperformance of one hedge fund will not ruin the whole. As the funds of funds are supposed to monitor and conduct due diligence on their holdings, their investors should in theory be exposed only to reputable hedge funds. Finally, these funds of hedge funds are often good at sourcing talented or undiscovered managers who may be "under the radar" of the broader investment community. In fact, the business model of the fund of funds hinges on identifying talented managers and pruning the portfolio of underperforming managers.



- ❖ The **biggest disadvantage** is cost, because these funds create a double-fee structure. Typically, you pay a management fee (and maybe even a performance fee) to the fund manager in addition to fees normally paid to the underlying hedge funds. Another important and underestimated risk is the potential for over diversification. Too many single hedge fund holdings (with the aim of diversification) are likely to erode the benefits of active management, while incurring the double-fee structure in the meantime.

QUESTION NO. 6

Two broad choices are required for the formulation of an appropriate portfolio strategy ? What are they?

Two broad choices are required for the formulation of an appropriate portfolio strategy. They are active portfolio strategy and passive portfolio strategy.

Active Portfolio Strategy (APS): An APS is followed by most investment professionals and aggressive investors who strive to earn superior return after adjustment for risk. There are four principle vectors of active strategy. They are:

1. **Market Timing:** Market timing is based on an explicit or implicit forecast of general market movement. A variety of tools are employed for market timing analysis namely business cycle analysis, moving average analysis, advance-decline analysis, Econometric models.
2. **Sector Rotation:** Sector or group rotation may apply to both stock and bond component of the portfolio. It is used more compulsorily with respect to strategy. The components of the portfolio are used when it involves shifting. The weighting for various industry sectors is based on their asset outlook.
3. **Security Selection:** Security selection involves a search for under price security. If one has to resort to active stock selection he may employ fundamental / technical analysis to identify stocks which seems to promise superior return and concentrate the stock components of portfolio on them. Such stock will be over weighted relative to their position in the market portfolio. Likewise stock which are perceived to be unattractive will be under weighted relative to their position in the market portfolio. As far as bonds are concerned security selection calls for choosing bonds which offer the highest yields to maturity and at a given level of risk.
4. **Use of Specialized Investment Concept:** To achieve superior return, one has to employ a specialized concept/ philosophy particularly with respect to investment in stocks. The concept which have been exploited successfully are growth stock, neglected or out of favor stocks, asset stocks, technology stocks and cyclical stocks.

The advantage of cultivating a specialized investment concept is that it helps to:

1. Focus one's effort on a certain kind of investment that reflects one's ability and talent.
 2. Avoid the distraction of perusing other alternatives.
 3. Master an approach or style through sustained practice and continual self criticism.
- The greatest disadvantage of focusing exclusively on a specialized concept is that it may become obsolete. The changes in the market risk may cast a shadow over the validity of the basic premise underlying the investor philosophy.

Passive Portfolio Strategy : Active strategy was based on the premise that the capital market is characterized by efficiency which can be exploited by resorting to market timing or sector rotation or security selection or use of special concept or some combination of these vectors. Passive strategy, on the other hand, rests on the tenet that the capital market is fairly efficient with respect to the available information. Hence they search for superior return. Basically, passive strategy involves adhering to two guidelines. They are :

- a) Create a well-diversified portfolio at a predetermined level of risk.
- b) Hold the portfolio relatively unchanged overtime unless it became adequately diversified or inconsistent with the investor risk return preference.

QUESTION NO. 7

Discuss the various kinds of Systematic and Unsystematic risk?

There are two types of Risk – Systematic (or non-diversifiable) and unsystematic(or diversifiable) relevant for investment - also, called as general and specific risk.

Types of Systematic Risk

- a) **Market risk:** Even if the earning power of the corporate sector and the interest rate structure remain more or less uncharged prices of securities, equity shares in particular, tend to fluctuate. Major cause appears to be the changing psychology of the investors. The irrationality in the security markets may cause losses unrelated to the basic risks. These losses are the result of changes in the general tenor of the market and are called market risks.
- b) **Interest Rate Risk:** The change in the interest rate has a bearing on the welfare of the investors. As the interest rate goes up, the market price of existing fixed income securities falls and vice versa. This happens because the buyer of a fixed income security would not buy it at its par value or face value if its fixed interest rate is lower than the prevailing interest rate on a similar security.
- c) **Social or Regulatory Risk:** The social or regulatory risk arises, where an otherwise profitable investment is impaired as a result of adverse legislation, harsh regulatory climate, or in extreme instance nationalization by a socialistic government.
- d) **Purchasing Power Risk:** Inflation or rise in prices lead to rise in costs of production, lower margins, wage rises and profit squeezing etc. The return expected by investors will change due to change in real value of returns.

Classification of Unsystematic Risk

1. **Business Risk:** As a holder of corporate securities (equity shares or debentures) one is exposed to the risk of poor business performance. This may be caused by a variety of factors like heightened competition, emergence of new technologies, development of substitute products, shifts in consumer preferences, inadequate supply of essential inputs, changes in governmental policies and so on. Often of course the principal factor may be inept and incompetent management.
2. **Financial Risk:** This relates to the method of financing, adopted by the company, high leverage leading to larger debt servicing problem or short term liquidity

problems due to bad debts, delayed receivables and fall in current assets or rise in current liabilities.

3. **Default Risk:** Default risk refers to the risk accruing from the fact that a borrower may not pay interest and/or principal on time. Except in the case of highly risky debt instrument, investors seem to be more concerned with the perceived risk of default rather than the actual occurrence of default. Even though the actual default may be highly unlikely, they believe that a change in the perceived default risk of a bond would have an immediate impact on its market price.

QUESTION NO. 8

Explain the three form of Efficient Market Hypothesis.

The EMH theory is concerned with speed with which information effects the prices of securities. As per the study carried out technical analyst it was observed that information is slowly incorporated in the price and it provides an opportunity to earn excess profit. However, once the information is incorporated then investor can not earn this excess profit.

Level of Market Efficiency: That price reflects all available information, the highest order of market efficiency. According to FAMA, there exist three levels of market efficiency:-

1. **Weak form efficiency** - Price reflect all information found in the record of past prices and volumes.
2. **Semi - Strong efficiency** - Price reflect not only all information found in the record of past prices and volumes but also all other publicly available information.
3. **Strong form efficiency** - Price reflect all available information public as well as private.

QUESTION NO. 9

Discuss how the risk associated with securities is effected by Government policy.

The risk from Government policy to securities can be impacted by any of the following factors.

Licensing Policy

1. Restrictions on commodity and stock trading in exchanges
2. Changes in FDI and FII rules.
3. Export and import restrictions
4. Restrictions on shareholding in different industry sectors
5. Changes in tax laws and corporate and Securities laws.

QUESTION NO. 10

Explain the significance of LIBOR in international financial transactions ?

(May 2011) (4 Marks)

LIBOR stands for **L**ondon **I**nter **B**ank **O**ffered **R**ate. Other features of LIBOR are as follows:

- ✓ It is the base rate of exchange with respect to which most international financial transactions are priced.

- ✓ It is used as the base rate for a large number of financial products such as options and swaps.
- ✓ Banks also use the LIBOR as the base rate when setting the interest rate on loans, savings and mortgages.
- ✓ It is monitored by a large number of professionals and private individuals worldwide.

QUESTION NO. 11

Explain the Random Walk Theory to Portfolio Management?

(CA Final)

- Many investment managers and stock market analysts believe that stock market prices can never be predicted because they are not a result of any underlying factors but are mere statistical ups and downs. This hypothesis is known as Random Walk hypothesis which states that the behavior of stock market prices is unpredictable and that there is no relationship between the present prices of the shares and their future prices. Proponents of this hypothesis argue that stock market prices are independent. A British statistician, M. G Kendall, found that changes in security prices behave nearly as if they are generated by a suitably designed roulette wheel for which each outcome is statistically independent of the past history. In other words, the fact that there are peaks and troughs in stock exchange prices is a mere statistical happening-successive peaks and troughs are unconnected. In the layman's language it may be said that prices in the stock exchange behave exactly the way a drunk would behave while walking in a blind lane, i.e., up and down, with an unsteady way going in any direction he likes, bending on the side once and on the other side the second time.
- The supporters of this theory put out a simple argument. It follows that:
 - a) Prices of shares in stock market can never be predicted. The reason is that the price trends are not the result of any underlying factors, but that they represent a statistical expression of past data.
 - b) There may be periodical ups or downs in share prices, but no connection can be established between two successive peaks (high price of stocks) and troughs (low price of stocks).

QUESTION NO. 12

Write short note on Factors affecting investment decisions in portfolio management.

Factors affecting Investment Decisions in Portfolio Management

- (i) **Objectives of investment portfolio:** There can be many objectives of making an investment. The manager of a provident fund portfolio has to look for security (low risk) and may be satisfied with none too higher return. An aggressive investment company may, however, be willing to take a high risk in order to have high capital appreciation.
- (ii) **Selection of investment**
 - a) What types of securities to buy or invest in? There is a wide variety of investment opportunities available i.e. debentures, convertible bonds, preference shares, equity shares, government securities and bonds, income units, capital units etc.
 - b) What should be the proportion of investment in fixed interest/dividend securities and variable interest/dividend bearing securities?

- c) In case investments are to be made in the shares or debentures of companies, which particular industries show potential of growth?
 - d) Once industries with high growth potential have been identified, the next step is to select the particular companies, in whose shares or securities investments are to be made.
- (iii) **Timing of purchase:** At what price the share is acquired for the portfolio depends entirely on the timing decision. It is obvious if a person wishes to make any gains, he should “buy cheap and sell dear” i.e. buy when the shares are selling at a low price and sell when they are at a high price.

QUESTION NO. 13

- (a) What sort of investor normally views the variance (or Standard Deviation) of an individual security's return as the security's proper measure of risk?**
- (b) What sort of investor rationally views the beta of a security as the security's proper measure of risk? In answering the question, explain the concept of beta.**

- (a)** A rational risk-averse investor views the variance (or standard deviation) of her portfolio's return as the proper risk of her portfolio. If for some reason or another the investor can hold only one security, the variance of that security's return becomes the variance of the portfolio's return. Hence, the variance of the security's return is the security's proper measure of risk.

While risk is broken into diversifiable and non-diversifiable segments, the market generally does not reward for diversifiable risk since the investor himself is expected to diversify the risk himself. However, if the investor does not diversify he cannot be considered to be an efficient investor. The market, therefore, rewards an investor only for the non-diversifiable risk. Hence, the investor needs to know how much non-diversifiable risk he is taking. This is measured in terms of beta.

An investor therefore, views the beta of a security as a proper measure of risk, in evaluating how much the market reward him for the non-diversifiable risk that he is assuming in relation to a security. An investor who is evaluating the non-diversifiable element of risk, that is, extent of deviation of returns viz-a-viz the market therefore consider beta as a proper measure of risk.

- (b)** If an individual holds a diversified portfolio, she still views the variance (or standard deviation) of her portfolios return as the proper measure of the risk of her portfolio. However, she is no longer interested in the variance of each individual security's return. Rather she is interested in the contribution of each individual security to the variance of the portfolio.

Under the assumption of homogeneous expectations, all individuals hold the market portfolio. Thus, we measure risk as the contribution of an individual security to the variance of the market portfolio. The contribution when standardized properly is the beta of the security. While a very few investors hold the market portfolio exactly, many hold reasonably diversified portfolio. These portfolios are close enough to the market portfolio so that the beta of a security is likely to be a reasonable measure of its risk.

In other words, beta of a stock measures the sensitivity of the stock with reference to a broad based market index like BSE sensex. For example, a beta of 1.3 for a stock would indicate that this stock is 30 per cent riskier than the sensex. Similarly, a beta of a 0.8 would indicate that the stock is 20 per cent (100 - 80) less risky than the sensex. However, a beta of one would indicate that the stock is as risky as the stock market index.

QUESTION NO. 14

Distinguish between ‘Systematic risk’ and ‘Unsystematic risk’.

Systematic risk refers to the variability of return on stocks or portfolio associated with changes in return on the market as a whole. It arises due to risk factors that affect the overall market such as changes in the nations’ economy, tax reform by the Government or a change in the world energy situation. These are risks that affect securities overall and, consequently, cannot be diversified away. This is the risk which is common to an entire class of assets or liabilities. The value of investments may decline over a given time period simply because of economic changes or other events that impact large portions of the market. Asset allocation and diversification can protect against systematic risk because different portions of the market tend to underperform at different times. This is also called market risk.

Unsystematic risk however, refers to risk unique to a particular company or industry. It is avoidable through diversification. This is the risk of price change due to the unique circumstances of a specific security as opposed to the overall market. This risk can be virtually eliminated from a portfolio through diversification.

QUESTION NO. 15

Discuss the Capital Asset Pricing Model (CAPM) and its relevant assumptions.

Capital Asset Pricing Model: The mechanical complexity of the Markowitz’s portfolio model kept both practitioners and academics away from adopting the concept for practical use. Its intuitive logic, however, spurred the creativity of a number of researchers who began examining the stock market implications that would arise if all investors used this model. As a result what is referred to as the Capital Asset Pricing Model (CAPM), was developed.

The Capital Asset Pricing Model was developed by Sharpe, Mossin and Linter in 1960. The model explains the relationship between the expected return, non-diversifiable risk and the valuation of securities. It considers the required rate of return of a security on the basis of its contribution to the total risk. It is based on the premises that the diversifiable risk of a security is eliminated when more and more securities are added to the portfolio. However, the systematic risk cannot be diversified and is or related with that of the market portfolio. All securities do not have same level of systematic risk. The systematic risk can be measured by beta, β under CAPM, the expected return from a security can be expressed as:

$$\text{Expected return on security} = R_f + \text{Beta} (R_m - R_f)$$

The model shows that the expected return of a security consists of the risk-free rate of interest and the risk premium. The CAPM, when plotted on the graph paper is known as the Security Market Line (SML). A major implication of CAPM is that not only every security but all portfolios too must plot on SML. This implies that in an efficient market, all securities are expected returns commensurate with their riskiness, measured by β .

Relevant Assumptions of CAPM

- (i) The investor’s objective is to maximize the utility of terminal wealth;
- (ii) Investors make choices on the basis of risk and return;
- (iii) Investors have identical time horizon;
- (iv) Investors have homogeneous expectations of risk and return;
- (v) Information is freely and simultaneously available to investors;
- (vi) There is risk-free asset, and investor can borrow and lend unlimited amounts at the risk-free rate;

- (vii) There are no taxes, transaction costs, restrictions on short rates or other market imperfections;
- (viii) Total asset quantity is fixed, and all assets are marketable and divisible.
- Thus, CAPM provides a conceptual frame work for evaluating any investment decision where capital is committed with a goal of producing future returns. However, there are certain limitations of the theory. Some of these limitations are as follows:

- a) **Reliability of Beta:** Statistically reliable Beta might not exist for shares of many firms. It may not be possible to determine the cost of equity of all firms using CAPM. All shortcomings that apply to Beta value apply to CAPM too.
- b) **Other Risks:** It emphasis only on systematic risk while unsystematic risks are also important to shareholders who do not possess a diversified portfolio.
- c) **Information Available:** It is extremely difficult to obtain important information on risk- free interest rate and expected return on market portfolio as there are multiple risk- free rates for one while for another, markets being volatile it varies over time period.

Chapter 8 - Financial Services in India

QUESTION NO. 1

List and briefly explain the main functions of an investment bank. (May 2010)

Main Functions of an Investment Bank: The following are, briefly, a summary of investment banking functions:

- **Managing an IPO (Initial Public Offering):** This includes hiring managers to the issue, due diligence and marketing the issue.
- **Issue of debt:** When a company requires capital, it sometimes chooses to issue public debt instead of equity.
- **Mergers and Acquisitions:** Acting as intermediary between Acquirer and target company
- **Private Placement:** A private placement differs little from a public offering aside from the fact that a private placement involves a firm selling stock or equity to private investors rather than to public investors.
- **Financial Restructuring:** When a company cannot pay its cash obligations - it goes bankrupt. In this situation, a company can, of course, choose to simply shut down operations and walk away or, it can also restructure and remain in business

QUESTION NO. 2

What is Credit rating?

Credit rating: Credit rating is a symbolic indication of the current opinion regarding the relative capability of a corporate entity to service its debt obligations in time with reference to the instrument being rated. It enables the investor to differentiate between instruments on the basis of their underlying credit quality. To facilitate simple and easy understanding, credit rating is expressed in alphabetical or alphanumerical symbols.

Thus Credit Rating is:

- (1) An expression of opinion of a rating agency.
- (2) The opinion is in regard to a debt instrument.
- (3) The opinion is as on a specific date.
- (4) The opinion is dependent on risk evaluation.
- (5) The opinion depends on the probability of interest and principal obligations being met timely.

Credit rating aims to

1. provide superior information to the investors at a low cost;
2. provide a sound basis for proper risk-return structure;
3. subject borrowers to a healthy discipline and
4. assist in the framing of public policy guidelines on institutional investment.

Thus, credit rating financial services represent an exercise in faith building for the development of a healthy financial system. In India the rating coverage is of fairly recent origin, beginning 1988 when the first rating agency CRISIL was established. At present there are few other rating agencies like:

1. Credit Rating Information Services of India Ltd. (CRISIL).
2. Investment Information and Credit Rating Agency of India (ICRA).

3. Credit Analysis and Research Limited (CARE).
4. Duff & Phelps Credit Rating India Pvt. Ltd. (DCRI)
5. ONICRA Credit Rating Agency of India Ltd.

QUESTION NO. 3

Write a short note on Limitations Of Credit Rating ?

(SFM Nov 2009)

1. **Rating Changes** - Ratings given to instruments can change over a period of time. They have to be kept under rating watch. Downgrading of an instrument may not be timely enough to keep investors educated over such matter
2. **Industry Specific rather than Company Specific** - Downgrades are linked to industry rather than company performance. Agencies give importance to macro aspects and not to micro ones; over-react to existing conditions which come from optimistic / pessimistic views arising out of up/down turns.
3. **Cost Benefit Analysis** - Rating being mandatory, it becomes a must for entities rather than carrying out Cost Benefit Analysis. Rating should be left optional and the corporate should be free to decide that in the event of self-rating, nothing has been left out.
4. **Conflict of Interest** - The rating agency collects fees from the entity it rates leading to a conflict of interest. Rating market being competitive there is a distant possibility of such conflict entering into the rating system.
5. **Corporate Governance Issues** - Special attention is paid to (a) Rating agencies getting more of its revenues from a single service or group. (b) Rating agencies enjoying a dominant market position engaging in aggressive competitive practices by refusing to rate a collateralized/securitized instrument or compelling an issuer to pay for services rendered. (c) Greater transparency in the rating process viz. in the disclosure of assumptions leading to a specific public rating.

QUESTION NO. 4

Write a short note on CAMEL MODEL In Credit Rating ? (Nov 2010) 4 Marks

CAMEL Stands for **C**apital, **A**ssets, **M**anagement, **E**arnings and **L**iquidity. The CAMEL model adopted by the Rating Agencies deserves special attention, it focuses on the following aspects:

1. **Capital** - Composition of Retained Earnings and External Funds raised; Fixed dividend component for preference shares and fluctuating dividend component for equity shares and adequacy of long term funds adjusted to gearing levels; ability of issuer to raise further borrowings.
2. **Assets** - Revenue generating capacity of existing/proposed assets, fair values, technological /physical obsolescence, linkage of asset values to turnover, consistency, appropriation of methods of depreciation and adequacy of charge to revenues. Size, ageing and recoverability of monetary assets viz receivables and its linkage with turnover.
3. **Management** - Extent of involvement of management personnel, team-work, authority, timeliness, effectiveness and appropriateness of decision making along with directing management to achieve corporate goals.
4. **Earnings** - Absolute levels, trends, stability, adaptability to cyclical fluctuations ability of the entity to service existing and additional debts proposed.
5. **Liquidity** - Effectiveness of working capital management, corporate policies for stock and creditors, management and the ability of the corporate to meet their commitment in the short run.

These five aspects form the five core bases for estimating credit worthiness of an issuer which leads to the rating of an instrument. Rating agencies determine the pre-dominance of positive/negative aspects under each of these five categories and these are factored in for making the overall rating decision.

QUESTION NO. 5

What is a depository ? Who are the major players of a depository system ?What advantage the depository system offer to the clearing member ?

(May 2010) 4 Marks

- ❖ The term 'Depository' means a place where something is deposited for safe keeping; Depository system is concerned with conversion of securities from physical to electronic form, settlement of trades-in electronic segment, electronic transfer of ownership of shares and electronic custody of securities. All securities in the depositories are identical in all respects and are thus fungible. The system results in instant transfer as compared to six to eight weeks time under physical mode.
- ❖ **Major players of a depository system:**
 - ✓ Depository
 - ✓ Issuers or Company
 - ✓ Depository participants
 - ✓ Clearing members
 - ✓ Corporation
 - ✓ Stock brokers
 - ✓ Clearing Corporation
 - ✓ Investors
 - ✓ Banks
- ❖ **Advantages to Clearing Member**
 - ✓ Enhanced liquidity, safety, and turnover on stock market.
 - ✓ Opportunity for development of retail brokerage business.
 - ✓ Ability to arrange pledges without movement of physical scrip and further increase of trading activity, liquidity and profits.
 - ✓ Improved protection of shareholder's rights resulting from more timely communications from the issuer.
 - ✓ Reduced transaction costs.
 - ✓ Elimination of forgery and counterfeit instruments with attendant reduction in settlement risk from bad deliveries.
 - ✓ Provide automation to post-trading processing.
 - ✓ Standardization of procedures.

❖ Physical Vis-a-Vis Dematerialized Share Trading

Physical	Dematerialized
Actual Delivery of Share is to be exchanged	No Actual Delivery of shares is needed
Open Delivery can be kept	Not possible to keep delivery open
Processing time is long	Processing time is less
Stamp Charges @ 0.5% (approx) are levied for transfer	No Stamp Charges are required for transfer

For sales transaction, no charges other than brokerage are levied	Sales transactions are also charged
For buy transaction, delivery is to be sent to company for Registration	No need to send the document to the company for Registration

❖ **Depositories In India:**

1. National Securities Depository Limited (NSDL)
2. Central Depository Service (India) Limited (CSDL) NSDL was registered by the SEBI on June 7, 1996 as India's first depository to facilitate trading and settlement of securities in the dematerialized form.

❖ **Pros And Cons Of Depository Services:**

The major benefits accruing to investors and other market players are as follows :

- ✓ Securities are held in a safe and convenient manner
- ✓ Transfer of securities is effected immediately
- ✓ Stamp duty for transfer is eliminated and transaction costs are reduced
- ✓ Paper work is minimized
- ✓ Bad deliveries, fake securities and delays in transfers are eliminated.
- ✓ Routine changes viz. change in address of one person owning securities issued by different companies can be taken care of simultaneously for all securities with little delay.
- ✓ Benefit accruing from issue of bonus shares, consolidation, split or merger is credited without much difficulty.
- ✓ Payment of dividends and interest is expedited by the use of electronic clearing system.
- ✓ Securities held in electronic form can be locked in and frozen from either a sale or purchase for any definite period.
- ✓ Securities held in electronic form can also be pledged for any credit facility.

There are however risks as well

1. **Systemic failure** - Input control, process control and output control being parts of computerized environment apply equally to the dematerialization process. Unforeseen failures, intentional or otherwise, on the part of the individuals entrusted with protecting data integrity, could lead to chaos.
2. **Additional record keeping** - In built provisions for dematerialization exist to take care of the needs of individuals who wish to hold securities in physical form. Companies will invariably need to maintain records on a continuous basis for securities held in physical form. Periodical reconciliation between demat segment and physical segment is very much necessary.
3. **Cost of Depository Participant (DP)** - For transacting business, investors have to deal not only with brokers but also with depository participant which acts as an additional tier in the series of intermediaries. A onetime fee is levied by the depository participant which small investors consider to be an avoidable cost.
4. **Human Fraud** - Dematerialization is not a remedy for all ills. Unlawful transfers by individuals against whom insolvency proceedings are pending or transfers by attorney holders with specific or limited powers are possible.

QUESTION NO. 6

Write short note on Advantages of a depository system.

Advantages of a Depository System

The different stake-holders have advantages flowing out of the depository system. They are:-

1. For the Capital Market:

- a) It eliminates bad delivery;
- b) It helps to eliminate voluminous paper work;
- c) It helps in the quick settlement of dues and also reduces the settlement time;
- d) It helps to eliminate the problems concerning odd lots;
- e) It facilitates stock-lending and thus deepens the market.

2. For the Investor:

- a) It reduces the risks associated with the loss or theft of documents and securities and eliminates forgery;
- b) It ensures liquidity by speedy settlement of transactions;
- c) It makes investors free from the physical holding of shares;
- d) It reduces transaction costs; and
- e) It assists investors in securing loans against the securities.

3. For the Corporate Sector or Issuers of Securities:

- a) It provides upto date information on shareholders' names and addresses;
- b) It enhances the image of the company;
- c) It reduces the costs of the secretarial department;
- d) It increases the efficiency of registrars and transfer agents; and
- e) It provides better facilities of communication with members.

QUESTION NO. 7

Write a short note on

A. Shareholder Value Analysis (SVA)

(May 2002)(5 Marks)

- **Meaning:** SVA is an approach to Financial Management developed in 1980s. This approach focuses on the creation of economic value for shareholders, as measured by share price performance and flow of funds. SVA is used as a way of linking management strategy and decisions to the creation of value for shareholders.
- **Value Drivers:** The factors, called 'value drivers' are identified which will influence the shareholder's value. They may be : growth in sales, improvement in profit margin, capital investment decisions, capital structure decisions etc. The management is required to pay attention to such value drivers while taking investment & finance decisions.
- **Benefits:**
 - 1. SVA helps the management to concentrate on activities which create value to the shareholders rather than on short-term profitability.
 - 2. SVA helps to strengthen the competitive position of the firm, by focusing on wealth creation.

3. They provide an objective and consistent framework of evaluation and decision making across all functions, departments and units of the company.

- The shareholder value analysis got recognition only after 1986, when Prof. Rappaport of USA published his book Creating Shareholder Value. As per the concept of Shareholder Value Analysis (SVA), all business activity should aim to maximize the value of company's equity shares in the long run. As per SVA, the primary responsibility of management (not only of the finance manager) is to create value for the shareholders. All the decisions of the management should have only one target and that is value creation for the shareholders.

B. Credit Cards As A Part Of Consumer Finance

(May 2008)

- **Meaning:** Credit cards are primarily seen as a means of convenience in meeting ones expenses. A person who holds a credit card need not pay in cash at the time of every expenditure. Instead, he can deposit a lump sum in the bank or the agencies of which he holds the credit card, to meet the expenditures. Credit Cards are a good substitute for cash and the resultant safety and convenience, the competition in this business has made credit cards a source of short-term finance also for individuals.
- **Parties Involved In Credit Card Transaction:** Every transaction on a credit card involves three parties:
 1. The credit card issuer
 2. The credit cardholder and
 3. The party to whom the cardholder is supposed to pay, say the merchant outlet (MO). Examples of MO are: a departmental store, hotel, railways, airlines etc.
- **Advantages & Disadvantages:**

Advantages:

1. They allow you to make purchases on credit without carrying around a lot of cash. This allows you a lot of flexibility.
2. They allow accurate record-keeping by consolidating purchases into a single statement.
3. They allow convenient remote purchasing - ordering/shopping online or by phone. They allow you to pay for large purchases in small, monthly installments.
4. Under certain circumstances, they allow you to withhold payment for merchandise which proves defective.
5. They are cheaper for short-term borrowing - interest is only paid on the remaining debt, not the full loan amount.
6. Many cards offer additional benefits such as additional insurance cover on purchases, cash back, air miles and discounts on holidays.
7. Beside this, the credit-card may also expend the benefit of roll over credit, supplementary cards and travel assistance.
8. Credit cards enable a person to track and document all his expenses
9. It is safer to carry Credit Cards rather than cash as it provides 100% safety of cash against theft

Disadvantages:

1. You may become an impulsive buyer and tend to overspend because of the ease of using credit cards. Cards can encourage the purchasing of goods and

services you cannot really afford.

2. Credit cards are a relatively expensive way of obtaining credit if you don't use them carefully, especially because of the high interest rates and other costs.
3. Lost or stolen cards may result in some unwanted expense and inconvenience.
4. The use of a large number of credit cards can get you even further into debt.
5. Using a credit card, especially remotely, introduces an element of risk as the card details may fall into the wrong hands resulting in fraudulent purchases on the card. Fraudulent or unauthorized charges may take months to dispute, investigate, and resolve.

C. Financial Engineering

(May 2002, Nov 2008)(5Marks)

- According to John Finnerty 'Financial Engineering' involves the design, development and implementation of innovative financial instruments and processes and the formulation of creative solutions to problems in finance. Financial Engineering lies in innovation and creativity to promote market efficiency. It involves construction of innovative asset-liability structures using a combination of basic instruments so as to obtain hybrid instruments which may either provide a risk-return configuration otherwise unviable-or result in gain by heading efficiently, possibly by creating an arbitrage opportunity. It is of great help in corporate finance, investment management, money management, trading activities and risk management.
- **Computational finance or financial engineering** is a cross-disciplinary field which relies on mathematical finance, numerical methods and computer simulations to make trading, hedging and investment decisions, as well as facilitating the risk management of those decisions.
- Over the years, Financial Managers have been coping up with the challenges of changing situations. Different new techniques of financial analysis and new financial instruments have been developed. The process that seeks to adopt existing financial instruments and develop new ones so as to enable financial market participants to cope more effectively with changing conditions is known as financial engineering.
- In recent years, the rapidly with which corporate finance and investment finance have changed in practice has given birth to a new area of study known as financial engineering. It involves use of complex mathematical modeling and high speed computer solutions. Financial Engineering refers to an includes all this. It also involves any moral twist to an existing idea and is not limited to corporate finance. It has been practised by commercial banks in offering new and tailor made products to different types of customers acquisitions.
- The term financial engineering is often used to refer to risk management also because it involves a strategic approach to risk management.
- A number of factors have accelerated the process of financial innovation.
 1. Interest Rate Volatility
 2. Exchange Rate Volatility
 3. Price Volatility
 4. Regulatory & Tax Changes
 5. Globalization of the Markets
 6. Increased competition among Investment Bankers
- In the midst of globalization, our economy zoomed for a big boom especially in information technology, share/money market etc. When boom is expected, the economy should also be prepared for recession/fall. As the tools of statistics can be

used very effectively to guard against perils associated with globalization, the expertise of financial engineers will be most sought after.

QUESTION NO. 8

What is the role of Financial Advisor in PSU? (May 2001) (May 2007)(May2010)

The financial adviser occupies an important position in all public sector undertakings (PSU). He functions as the principal advisor to the chief executive of the enterprise on all financial matters. The committee on public sector undertakings has specified the following functions and responsibilities for a financial adviser:

1. **Determination of financial needs** of the firm and the ways these needs are to be met.
2. **Formulation of a program** to provide most effective cost-volume profit relationship.
3. **Analysis of financial results** of all operations and recommendations concerning future operations.
4. **Examination of feasibility studies** & detailed project reports from the point of view of overall economic viability of the project.
5. **Conduct of special studies** with a view to reduce costs and improve efficiency and profitability.

QUESTION NO. 9

Write a short note on Functions Of Merchant Bankers?

(RTP Nov 11)

The basic function of merchant banker or investment banker is marketing of corporate and other securities. In the process, he performs a number of services concerning various aspects of marketing, viz., origination, underwriting, and distribution, of securities. During the regime of erstwhile Controller of Capital Issues in India, when new issues were priced at a significant discount to their market prices, the merchant banker's job was limited to ensuring press coverage and dispatching subscription forms to every corner of the country. Now, merchant bankers are designing innovative instruments and perform a number of other services both for the issuing companies as well as the investors. The activities or services performed by merchant bankers, in India, today include:

1. Project promotion services.
2. Project finance.
3. Management and marketing of new issues.
4. Underwriting of new issues.
5. Syndication of credit.
6. Leasing services.
7. Corporate advisory services.
8. Providing venture capital.
9. Operating mutual funds and off shore funds.
10. Investment management or portfolio management services.
11. Bought out deals.
12. Providing assistance for technical and financial collaborations and joint ventures.
13. Management of and dealing in commercial paper.
14. Investment services for non-resident Indians.

Chapter 9 - Mutual Funds

QUESTION NO. 1

Write a short note on various types of Mutual Funds ?

EQUITY DIVERSIFIED FUNDS

A Diversified funds is a fund that contains a wide array of stocks. The fund manager of a diversified fund ensures a high level of diversification in its holdings, thereby reducing the amount of risk in the fund.

VARIOUS KINDS OF DIVERSIFIED FUNDS

1. Flexi cap/Multi cap Fund: These are by definition, diversified funds. The only difference is that unlike a normal diversified fund, the offer document of a multi cap/flexi cap fund generally spells out the limits for minimum and maximum exposure to each of the market caps.
2. Contra fund: A contra fund invests in those out-of-favor companies that have unrecognized value. It is ideally suited for investors who want to invest in a fund that has the potential to perform in all types of market environments as it blends together both growth and value opportunities.
3. Index fund: An index fund seeks to track the performance of a benchmark market index like the BSE Sensex or S&P CNX Nifty. Simply put, the fund maintains the portfolio of all the securities in the same proportion as stated in the benchmark index.
4. Dividend Yield fund: A dividend yield fund invests in shares of companies having high dividend yields. Dividend yield is defined as dividend per share divided by the share's market price. Most of these funds invest in stocks of companies having a dividend yield higher than the dividend yield of a particular index, i.e., Sensex or Nifty. The prices of dividend yielding stocks are generally less volatile than growth stocks. Besides, they also offer the potential to appreciate.

EQUITY UNKED TAX SAVINGS SCHEME

1. Equity Linked Saving Schemes (ELSS) are tax saving mutual fund schemes that enable you to get tax benefits under Section 80C of the Income Tax Act.
2. They also offer the perfect way to participate in the growth of the capital market. It is having a lock-in-period of three years. Besides, ELSS has the potential to give better returns than any traditional tax savings instrument. Moreover, by investing in an ELSS through a Systematic Investment Plan (SIP), one can not only avoid the problem of investing a lump sum towards the end of the year but also take advantage of "averaging".
3. An equity-linked saving scheme (ELSS) is a great investment option that offers the twin benefits of tax saving & capital gains.

QUESTION NO. 2

Write a short note on Key Players of Mutual Fund ?

Mutual Fund is formed by a trust body. The business is set up by the sponsor, the money invested by the asset management company and the operations monitored by the trustee. There are five principal constituents and three market intermediaries in the formation and functioning of mutual fund. The five constituents are :

- **Sponsor:** A company established under the Companies Act forms a mutual fund.

- **Asset Management Company:** An entity registered under the Companies Act to manage the money invested in the mutual fund and to operate the schemes of the mutual fund as per regulations. It carries the responsibility of investing and managing the investors' money.
- **Trustee:** The trust is headed by Board of Trustees. The trustee holds the property of the mutual fund in trust for the benefit of unit holders and looks into the legal requirements of operating and functioning of the mutual fund. The trustee may also form a limited company under the Companies Act in some situations.
- **Unit Holder:** A person/entity holding an undivided share in the assets of a mutual fund scheme.
- **Mutual Fund:** A mutual fund established under the Indian Trust Act to raise money through, the sale of units to the public for investing in the capital market. The funds thus collected are passed on to the Asset Management Company for investment. The mutual fund has to be registered with SEBI.

The **three market intermediaries** are: (1) Custodian (2) Transfer Agents (3) Depository.

1. **Custodian:** A custodian is a person who has been granted a Certificate of Registration to conduct the business of custodial services under the SEBI (Custodian of Securities) Regulations 1996. Custodial services include safeguarding clients' securities along with incidental services provided. Maintenance of accounts of clients' securities together with the collection of benefits / rights accruing to a client falls within the purview of custodial service. Mutual funds require custodians so that AMC can concentrate on areas such as investment and management of money.
2. **Transfer Agents :** A transfer agent is a person who has been granted a Certificate of Registration to conduct the business of transfer agent under SEBI (Registrars to an Issue and Share Transfer Agents) Regulations Act 1993. Transfer agents' services include issue and redemption of mutual fund units, preparation of transfer documents and maintenance of updated investment records. They also record transfer of units between investors where depository does not function.
3. **Depository :** Under the Depositories 1996, a depository is body corporate who carries out the transfer of units to the unit holder in dematerialised form and maintain records thereof.

QUESTION NO. 3

Write a short note on classification of Mutual Funds ?

Classification of Mutual Funds: There are three different types of classification of mutual funds. (1) Functional (2) Portfolio and (3) Ownership. Each classification is mutually exclusive.

Functional Classification: Funds are divided into: Open Ended and Close Ended.

Open-end Vs. Closed-end Funds

(Nov 2010)(SFM Exam)

- **Number Of Units:** The number of units outstanding under the schemes of Open Ended Funds keeps on changing . A closed-end mutual fund is a publicly traded

investment company with a limited number of units i.e. number of units under Close Ended Funds is fixed.

- **Maturity Period:** Open Ended schemes usually don't have a fixed maturity period whereas Close Ended Schemes have fixed maturity period.
- **NAV / Market Price:** The price at which an investor buys or sell shares of a Close Ended Fund after the NFO (New Fund Offer) is the market price, as determined by the demand and supply market principles. In contrast, the price at which an investor buys or sells shares of a mutual fund is the NAV of the Mutual Fund at the close of a given business day.
- **Sale and Purchase:** The Units of Open Ended Funds are available for subscription and redemption on an ongoing basis. An investor is allowed to join or withdraw from the fund at any time by the mutual fund companies at NAV related prices. The Units of Close Ended Funds can be purchased or sold by the investor only from the secondary market i.e. stock market after the initial public offerings or there may be periodic repurchase at NAV related price by Mutual Fund itself.
- **Listing:** Open Ended Funds are not listed on any stock exchange. While listing of close ended funds are compulsory on any Stock Exchange.
- **Example :** The Unit Scheme -1964 (US- 64) was an open ended mutual fund scheme. Recently introduced Reliance Natural Resources Fund was also an Open Ended Mutual Fund . UTI has recently come up with new fund offer (NFO) with name "India Lifestyle Fund". This will be the three year close ended scheme .

Portfolio Classification: Funds are classified into Equity Funds, Debt Funds and Special Funds.

Equity Funds are invested in equity stocks. They are of the following types viz.

- **Growth Funds:** They seek to provide long term capital appreciation to the investor and are best to long term investors
- **Aggressive Funds:** They look for super normal returns for which investment is made in start-ups, IPOs and speculative shares. They are best to investors willing to take risks.
- **Income Funds :** They seek to maximize present income of investors by investing in safe stocks paying high cash dividends and in high yield money market instruments. They are best to investors seeking current income
- **Balanced Funds:** They are a mix of growth and income funds. They buy shares for growth and bonds for income and best for investors seeking to strike golden mean.

Debt Funds are of two types viz.

- **Bond Funds:** They invest in fixed income securities e.g. government bonds, corporate debentures, convertible debentures, money market. Investors seeking tax free income go in for government bonds while those looking for safe, steady income buy government bonds or high grade corporate bonds
- **Gilt Funds:** They are mainly invested in Government securities.

Special Funds are of four types viz.

- **Index Funds:** Every stock market has a stock index which measures the upward and downward sentiment of the stock market. Index Funds are low cost funds and

influence the stock market. The investor will receive whatever the market delivers.

- **International Funds:** A mutual fund located in India to raise money in India for investing globally.
- **Offshore Funds :** A mutual fund located in India to raise money globally for investing in India.
- **Sector Funds:** They invest their entire fund in a particular industry e.g. utility fund-for utility industry like power, gas, public works.

Ownership Classification: Funds are classified into Public Sector Mutual Funds, Private Sector Mutual Funds, Foreign Mutual Funds,

- **Public Sector Mutual Funds** are sponsored by a company of the public sector.
- **Private Sector Mutual Funds** are sponsored by a company of the private sector.
- **Foreign Mutual Funds** are sponsored by companies for raising funds in India, operate from India and invest in India.

QUESTION NO. 4

Write a short note on Advantages Of Mutual Fund ?

1. **Professional Management:** The funds are managed by skilled and professionally experienced managers with a back up of a Research team.
2. **Diversification:** Mutual Funds offer diversification in portfolio which reduces the risk.
3. **Convenient Administration:** There are no administrative risks of share transfer, as many of the Mutual Funds offer services in a demat form which save investor's time and delay.
4. **Higher Returns:** Over a medium to long-term investment, investors always get higher returns in Mutual Funds as compared to other avenues of investment. This is already seen from excellent returns, Mutual Funds have provided in the last few years.
5. **Low Cost of Management:** No Mutual Fund can increase the cost beyond prescribed limits of 2.5% maximum and any extra cost of management is to be borne by the AMC.
6. **Liquidity:** In all the open ended funds, liquidity is provided by direct sales / repurchase by the Mutual Fund and in case of close ended funds, the liquidity is provided by listing the units on the Stock Exchange.
7. **Transparency:** The SEBI Regulations now compel all the Mutual Funds to disclose their portfolios on a half-yearly basis. However, many Mutual Funds disclose this on a quarterly or monthly basis to their investors. The NAVs are calculated on a daily basis in case of open ended funds and are now published through AMFI in the newspapers.
8. **Other Benefits:** Mutual Funds provide regular withdrawal and systematic investment plans according to the need of the investors. The investors can also switch from one scheme to another without any load.
9. **Highly Regulated:** Mutual Funds all over the world are highly regulated and in India all Mutual Funds are registered with SEBI and are strictly regulated as per the Mutual Fund Regulations which provide excellent investor protection.

QUESTION NO. 5

What are the limitations/drawbacks of investing in Mutual Fund?(RTP, Nov 2009)

- 1. No guarantee of Return** - There are three issues involved :
 - a) All Mutual Funds cannot be winners There may be some who may underperform the benchmark index i.e. it may not even perform well as a beginner who invests in the stocks constituting the index.
 - b) A mutual fund may perform better than the stock market but this does not necessarily lead to a gain for the investor. The market may have risen and the mutual fund scheme increased in value but the investor would have got the same increase had he invested in risk free investments than in mutual fund.
 - c) Investors may forgive if the return is not adequate. But they will not do so if the principal is eroded. Mutual Fund investment may depreciate in value.
- 2. Diversification** - Diversification may minimize risk but does not guarantee higher return.
- 3. Selection of Proper Fund** - It may be easier to select the right share rather than the right fund. For stocks, one can base his selection on the parameters of economic, industry and company analysis. In case of mutual funds, past performance is the only criteria to fall back upon. But past cannot predict the future.
- 4. Cost Factor/ High Management Fee** - Mutual Funds carry a price tag. Fund Managers are the highest paid executives. While investing, one has to pay for entry load and when leaving he has to pay for exit load. Such costs reduce the return from mutual fund. The fees paid to the Asset Management Company is in no way related to performance. The Management Fees charged by the Fund reduces the return available to the investors.
- 5. Unethical Practices** - Mutual Funds may not play a fair game. There may be unethical practices e.g. diversion of Mutual Fund amounts by Mutual Funds to their sister concerns for making gains for them.
- 6. Others-**
 - ✓ Mutual Funds systems do not maintain the kind of transparency they should maintain
 - ✓ Many MF scheme are, at times, subject to lock in period, therefore, deny the market drawn benefits
 - ✓ At times, the investments are subject to different kind of hidden costs.
 - ✓ Redressal of grievances, if any, is not easy

QUESTION NO.6

Write short note on 'Exchange Traded Funds' ?

- ❖ **Meaning:** Exchange Traded Funds (ETFs) were introduced in US in 1993 and came to India around 2001 Exchange-Traded Funds (ETFs) are mutual fund schemes that are listed and traded on exchanges like any other stocks. An Exchange Traded Fund (ETF) is a hybrid product that combines the features of an index fund.
- ❖ ETFs invest in a basket of stocks and try to **replicate a stock market index** such as the S&P CNX Nifty or BSE Sensex.
- ❖ **Advantage:**
 1. By owning an ETF, you get the **diversification of an index fund** as well as the ability to sell short, buy margin and purchase as little as one share.

2. Another advantage is that the **expense ratios for most ETFs are lower than those of the average mutual fund**. They have very low operating and transaction costs, since there are no loads required to purchase ETFs.
 3. There is **no paper work involved for investing in an ETF**. These can be bought like any other stock by placing an order with a broker.
 4. A great reason to consider Exchange Traded Funds is that **they simplify index and sector investing in a way that is easy to understand**. If investors feel a turnaround is around the corner, they can go long, If, however, they think ominous clouds will be over the market for some time, they have the option of going short.
 5. The combination of the instant diversification, **low cost and the flexibility that Exchange Traded Funds offer makes these instruments** one of the most useful innovations and attractive pieces of financial engineering to date.
- ❖ **Indian Scenario:** The following Exchange Traded Funds (ETFs) are being presently traded at National Stock Exchange of India:
1. S&P CNX Nifty UTI Notional Depository Receipts Scheme (Sunder)
 2. Liquid Benchmark Exchange Traded Scheme (Liquid BeES)
 3. Junior Nifty BeES
 4. Nifty BeES
 5. Bank BeES
- ❖ Some other important features of ETF are as follows:
1. It gives an investor the benefit of investing in a commodity without physically purchasing the commodity like gold, silver, sugar etc.
 2. It is launched by an asset management company or other entity.
 3. The investor does not need to physically store the commodity or bear the costs of upkeep which is part of the administrative costs of the fund.

Chapter 10 - Money Market Operations

QUESTION NO. 1

What is the difference between Capital Market and Money Market?

(CA Final)

Basics	Money Market	Capital Market
Tenure	It is a market for lending and borrowing of short term funds, upto one year .	Capital markets deals in long term securities for a period beyond one year.
Well defined place	It is a not a well-defined market where business is done .	It is a well defined market where business is done e.g. stock exchange.
Short Term /Long Term	It deals in short term financial assets e.x .interbank call money, treasury bills, commercial paper, etc.	It deals in medium & long term financial assets e.g equity shares, debentures etc.
Classification	There is no sub-division in money market .	Capital Market is classified between Primary Market and Secondary Market
Volume of business	The total value of transaction in money market far exceeds the capital market. According to DFHI only in call money market daily lending is ₹ 6000 crores around	Capital market lag behind the total value of transaction done in money market.
No. of instrument	The number of instruments dealt in money market are various, e.g.(a) Interbank call money (b) Notice money upto 14 days (c) Short term deposits upto 3 months (d) 91 days treasury bill (e) 182 days treasury bill (f) Commercial paper etc.	The number of instruments in capital market are shares and debentures.
Participants	The participants in money market are Bankers, RBI and Government .	The participants in capital market are general investors, brokers, merchant bankers, registrars to issue, underwriters, corporate investors, FIs & Bankers
Liquidity	The important features of money market instrument is that it is liquid.	Whereas Capital market are not as liquid as money market instrument.
Regulator	It is regulated by the guidelines of RBI	It is regulated by the guidelines of SEBI.
End Use	Capital raised are used for Working Capital needs only	Capital raised being long term, are used for fixed & working capital
Risk	Low Credit & Market Risk	High Credit & Market Risk

QUESTION NO. 2

Write a short note on :

A. Call/Notice Money

- The core of the Indian money market structure is the interbank call money market which is centralized primarily in Mumbai, but with sub-markets in Delhi, Calcutta, Chennai and Ahmedabad.
- **Meaning** : Call money or inter-bank call money is the medium through which the scheduled commercial banks lend, borrow or call at short notice to manage the day-to-day surpluses and deficits in the cash flow. The money that is lent for one day in this market is known as 'call money' and if it exceeds one day (but less than 15 days), it is referred as 'notice money'.
- **Participants**: The participants in the markets are commercial banks, cooperative banks and primary dealers who can borrow and lend funds. Large mutual funds promoted by nationalized banks, private sector mutual funds and all India financial institutions can participate in the market as lenders only. Brokers are not permitted in the market.
- **Risk Involved** :
 1. Interest rate in the market is market driven and is highly sensitive to the forces of demand and supply. Hence, the participants in the markets are exposed to a high degree of interest rate risk.
 2. The activities in the money market are subjected to fluctuations due to seasonal factors, i.e. busy (November to April) and slack (May to October) seasons.
- **Factor Affecting Call Rates**: There are different factors which affect & make the call rates to be volatile. Some of these factors are :
 1. **Liquidity Position**: Call rates depend on the liquidity position of the economy in general and of the banking system in particular
 2. **CRR Requirement** : A reduction in CRR results in lesser cash balance to be maintained by banks which dampens the demand in call market and thus reducing the call rate.
 3. **Volatility in the Foreign Exchange Market**: Volatility in the foreign exchange market affects fluctuations in call rates.
 4. **Capital Market Conditions**: The volatility in call rate is also affected by the capital market conditions.
 5. **Level of Competition in the Call Market** : The level of competition and the number of participants affect the volatility in the call money market.
- **Security**: No collateral security is required to cover these transactions .
- **Account with RBI** : In view of the short tenure of such transactions , both the Borrowers and the Lenders are required to have current accounts with the Reserve Bank of India .
- **Indian Scenario** : The emergence of a purely interbank call money market is shaping up. In a recent development, Corporate are now not allowed to route call money transactions through primary dealers
- **Benefits** :
 1. **Even out day to day deficits**: Call Market enables Banks and Financial institutions to even out their day-to-day deficits and surplus of money.

2. **Cash Reserve Requirements:** Commercial Banks, Co-operative Banks and Primary Dealers are allowed to borrow and lend in this market for adjusting their cash reserve requirements.
3. **Outlet for Deploying Funds:** It serves as an outlet for deploying funds on short-term basis to the lenders having steady inflow of funds..

B. INTER-BANK PARTICIPATION CERTIFICATE (IBPC)

- **Meaning :** A IBPC is a deed of transfer through which a bank, sells or transfers to a third party (transferee) a part or all of a loan made to its clients (borrowers). In other words The Inter Bank Participation Certificates are short term instruments to even out the short term liquidity within the Banking system particularly when there are imbalances affecting the maturity mix of assets in Banking Book.
- **Why it is called so? :** It is called a participation certificate because through it, the PC holder participates in a bank loan, and so also in the interest, the security of the loan, and risk of default on a proportionate basis.
- **Objective:** The primary objective is to provide some degree of flexibility in the credit portfolio of banks & to smoothen the consortium arrangements.
- **Who can Issue & Subscribe:** The IBPC can be issued by scheduled commercial bank and can be subscribed by any commercial bank.
- **Issued against underlying Advance :** The IBPC is issued against an underlying advance, classified standard during the currency of the participation.
- **Types :** The participation can be issued in two types, viz. with and without risk to the lender.
- While the participation without risk can be issued for a period not exceeding 90 days. Participation with risk can be issued for a period between 91 days and 180 days.
- **Benefits :** The scheme is beneficial both to the issuing and participating banks. The issuing bank can secure funds against advances without actually diluting its asset-mix. A bank having the highest loans to total asset ratio and liquidity bind can square the situation by issuing IBPCs. To the lender, it provides an opportunity to deploy the short term surplus funds in a secured and profitable manner. The IBPC with risk can also be used for capital adequacy management.
- **Interest Rate:** The interest rate on IBPC is freely determined in the market. The certificates are neither transferable nor prematurely redeemable by the issuing bank.
- **Current Scenario :** Despite its advantages, the IBPC scheme has not become a popular money market instrument. One of the reason for this may be the prohibition against transferability as the participants are not allowed to transfer the certificates. Secondly due to the absence of a ceiling on the interest rate the borrower bank has to pay the issuing bank a rate higher than that agreed with the borrower.

C. MONEY MARKET MUTUAL FUNDS (MMMFs)

- MMMF pools the resources from the investors and invests them in a basket of money market instruments to generate the desired income.

- The Government of India thought of introducing Money Market Mutual Funds (MMMFs) on Indian financial canvass in 1992.
- The aim of the Government was to develop the money market and to enable individual investors to gain from money market instruments since it is practically impossible for individuals to invest in instruments like Commercial Papers (CPs), Certificate of deposits (CDs) and Treasury bills (TBs) which require huge investments.
- MMMFs operated under the RBI guideline from 1992 till March 2000. When the RBI decided that MMMFs should also be brought within the purview of SEBI to ensure investors protection, particularly after UTI fiasco. Now after March 2000, SEBI (MF) Regulations 1996 are applicable to the MMMFs as well.
- Resources mobilised by MMMFs could be invested exclusively in the following money market instruments:
 1. T-Bills
 2. Call notice money
 3. Commercial Bills
 4. Commercial Papers
 5. Certificate of deposit
- Units/shares of MMMFs can be issued only to individuals. Individual who are non-resident Indians may also subscribe subject to the condition that they can only repatriate dividend/income, but not the principal amount of subscription
- The setting up of a MMMF required the prior authorisation of the RBI.
- The units issued by the MMMFs are subject to stamp duty. Similarly the units transferred after holding for a lock-in period are also subject to stamp duty.
- Money Market Mutual Funds (MMMFs) can be set up by the banks and public financial institutions.

D. TREASURY BILLS (TBs)

- **Meaning** : T-Bills are short term instruments issued by RBI on behalf of the Government of India to tide over short term liquidity shortfalls.
- **Periodicity** : The periodicity of the T-Bills is 14 days, 28 days, 91 days, 182 days & 364 days.
- **Issue Price** : Treasury Bills are issued at a discount and redeemed at face value .
- **SGL Account** : T-Bills transactions are routed through the Special General Ledger (SGL) Accounts.
- **Yield / Return** : The return from T-Bills is in the form of Capital Profit i.e. difference between issue price (which is at a discount) & redemption price (at par) . Their yields can be calculated with the help of the following formula :

$$Y = \frac{FV - \text{Issue Price}}{\text{Issue Price}} \times \frac{12}{\text{Required Period}} \times 100$$

- **Features** :
 1. Government's contribution to the money market,
 2. Mop-up short-term funds in the money market
 3. Sold through auctions,
 4. Discount rate is market driven
 5. Focal Point for monetary policy.
- **Advantages to Investor**
 1. Manage cash position with minimum balances,
 2. Increased liquidity,
 3. Very little risk,

4. Market related yield,
5. Eligible for repos,
6. SLR security,
7. Two-way quotes by DFHI/Primary Dealers Bank
8. No capital loss,

- **Auction** : T-bills are issued by the RBI through the auction method. There are two types of auctions for T-Bills
 1. Multiple Price Based
 2. Uniform Price Based

In **Multiple Price Based** all bids equal to or above the cut off price is accepted however, the bidder has to obtain the T-bills at the price quoted by him.

In **Uniform Price Based** all the bids equal to or above the cut off price are accepted at the cut off level. However unlike the multiple price based model, the bidder obtains the T-Bills at the cut off price and not the price quoted by him.

91 days T-Bills are auctioned under uniform price auction method where as 364 days T- Bills are auctioned on the basis of multiple price auction method .

- **RBI Role** : The amount to be accepted at the auctions and the cut-off price are decided by the Reserve Bank of India on the basis of its public debt management policy, the conditions in money market and its monetary policy .
- **Participants** : TBs can be purchased by any person, firm, company, corporate body and institutions.
- **Lots** : TBs are issued in lots of ₹ 25,000 (14 days and 91 days)/₹ 1,00,000 (364 days)
- **Importance** : The treasury bills are extremely important among money market instruments, both for the issuer & investors. Through these instruments, Government can raise funds for short term to meet the temporary mismatches in cash flows & mop up excess liquidity in the system. Thus it have emerged as an effective instrument for dynamic asset-liability management.

E. COMMERCIAL BILLS or Derivative Usance Promissory Notes (DUPNs) :

- The commercial bill is a instrument drawn by a seller of goods on a buyer of goods.
- RBI has pioneered its efforts in developing bill culture in India, keeping in mind the distinct advantages of commercial bills, like, self-liquidating in nature, recourse to two parties, knowing exact date of transactions, transparency of transactions etc.
- Under the Scheme, commercial banks can discount with approved institutions (i.e. Commercial Banks, Insurance Companies, Development Financial Institutions, Mutual Funds, Primary Dealers, etc.) the bills which were originally discounted by them provided that the bills should have arisen out of genuine commercial trade transactions.
- The need for physical transfer of commercial bills has been waived and the rediscounting institution can now raise Derivative Usance Promissory Notes (DUPNs).
- **DUPN** is an innovative instrument issued by the RBI to eliminate movement of papers and facilitating easy rediscounting.
- **Backing** : DUPN is backed by up to 90 Days Usance Commercial Bills
- **Transfer** : DUPN is transferable by endorsement and delivery and hence liquid .
- **Stamp Duty** : Government has exempted stamp duty on derivative usance promissory notes.
- **Maturity** : These DUPNs are sold to investors in convenient lots and maturities (15 days to 90 days) on the basis of genuine trade bills, discounted by the discounting bank.
- **Condition** : The discounting bank should, comply with the following conditions,
 1. Bank which originally discounts the bills only draw DUPN.

2. Continue to hold unencumbered usance bills till the date of maturity of DUPN.
 3. Matured bills should be substituted by fresh eligible bills.
 4. The transactions underlying the DUPN should be bonafide commercial or trade transactions.
 5. The usance of the bill should not exceed 120 days & the un matured period of such bills for drawing DUPN should not exceed 90 days.
- **Issue at a discount** : The DUPN is issued at a discount which is realised at front-end.
 - **Yield** : The yield to the investor can be calculated with the following formula
 -

$$Y = \frac{FV - \text{Issue Price}}{\text{Issue Price}} \times \frac{12}{\text{Required Period}} \times 100$$

Where Y = Actual Yield, D = Discount Rate, M = Period of discount compounded for one year (12/Number of months or 365/number of days)

- **Importance** : Commercial bills re-discounting is a safe and highly liquid instrument having advantage to both borrower and lender. It can be better used for management of temporary mismatches in cash flows and asset-liability management. Hence it can be said that it is a negotiable self-liquidity instrument with low degree of risk.

F. CERTIFICATE OF DEPOSITS (CDs)

- **Meaning** : Certificate of Deposit (CD) is a front ended negotiable instrument, issued at a discount and the face value is payable at maturity by the issuing bank. In short CDs are money market instruments in the form of usance Promissory Notes issued at a discount & are negotiable in character. There is a lock-in-period of 15 days, after which they can be sold.
- **History** : The CDs were introduced in June, 1989 with the primary objective of providing a wholesale resource base to banks at market related interest rates.
- **Eligible Issuers Of CD** - CDs can be issued only by scheduled commercial banks excluding Regional Rural Banks (RRBs). Recently Financial Institution (FIs) has also been allowed to issue CDs.
- **Subscribers/Investors to CDs** : CDs can be issued to individuals, corporations, companies, trusts, funds, association, etc. Non-Resident Indians (NRIs) may also subscribe to CDs, but only on non-repatriable basis which should be clearly stated on the Certificate. Such CDs cannot be endorsed to another NRI in the secondary market.
- **Yield** : In the case of CDs effective rate/yield to the bank will be calculated on the basis of the following formula

$$Y = \frac{FV - \text{Issue Price}}{\text{Issue Price}} \times \frac{12}{\text{Required Period}} \times 100$$

- **Minimum size of issue**: CDs can be issued for minimum amount of ₹ 5 lakhs to a single investor. CDs above ₹ 5 lacs should be in multiples of ₹ 1 lakh. There is however no limit on the total quantum of funds raised through CDs
- **Transferability** : CDs are freely transferable by endorsement and delivery but only 15 days after the date of issue.
- **Stamp Duty** : CDs are eligible to stamp duty as per provisions of Indian Stamps Act.
- **Reserve requirements** : Banks have to maintain CRR and SLR on the issue price of the CDs.
- **Loans/buy backs** - Banks cannot grant loans against CDs. Further, they cannot buy-back their own CDs before maturity
- **Interest** : The rate of interest is determined by the parties to the transaction freely.
- **Importance** : The instrument has emerged as effective asset-liability management.

G. COMMERCIAL PAPER (CP)

- **Meaning:** CP is an unsecured debt instrument in the form of a promissory note issued by highly rated borrowers for tenors ranging between 15 days to one year for meeting working capital requirement directly from the market instead of borrowing from banks.
- **Origination :** The concept of CPs was originated in USA in early 19th century when commercial banks monopolized and charged high rate of interest on loans and advances. In India, the CP was introduced in January 1990 on the recommendation of Vaghul Committee.
- **Conditions under which the CPs can be issued are:**
 1. the issuer company should have a minimum net worth and fund-based working capital limit of not less than ₹ 4 crores each.
 2. the company should obtain a minimum rating as required from CRISIL/ICRA/CARE etc. which should not be more than 2 months old at the time of issue of CPs.
 3. CP should be issued for a minimum period of 7 days and a maximum of less than 1 year
 4. minimum amount of CP issued for a single investor will be ₹ 25 Lakhs in the minimum denomination of ₹ 5 Lakhs,
 5. CPs can be issued to a maximum of 100% of the fund-based working capital limits of issuer company,
 6. the banks can neither extend any stand-by or underwriting facility nor guarantee payment of the instrument on maturity.
 7. the CPs are subject to stamp duty. Besides, the issuer has to incur rating agency fee, issuing and paying agents fee, etc.
- **Mode of CP:** CP has to be issued at a discount to face value. Discount rate has to be freely determined by the market.
- **Negotiability of CP:** CP (being usance promissory note) would be freely negotiable by endorsement and delivery.
- **Stamp Duty:** The issue of CP would be subject to payment of stamp duty.
- **Benefits of CP to the Issuer**
 1. **Low interest expenses :** The interest cost associated with the issuance of CP is normally expected to be less than the cost of bank financing.
 2. **Access to short term funding :** CP issuance provides a company with increased access to short term funding sources.
 3. **Flexibility and liquidity :** CP affords the issuer increased flexibility and liquidity in matching the exact amount and maturity of its debt to its current working capital requirement.
 4. **Investor recognition :** The issuance of CP provides the issuer with favourable exposure to major institutional investors as well as wider distribution of its debt.
 5. **Ease and low cost of establishment :** A CP programme can be established with ease at a low cost, once the basic criteria have been satisfied.
- **Benefits of CP to the Investor**
 1. **Higher yield :** Higher yields are expected to be generally obtainable on CP than on other short term money market instruments like bank deposits.
 2. **Portfolio diversification :** Commercial Paper provides an attractive avenue for short term portfolio diversification.
 3. **Flexibility :** CPs can be issued for periods ranging from 15 days to less than one year, thereby affording an opportunity to precisely match cash flow requirements.
 4. **Liquidity :** Liquidity in CP is generally provided by a dealer offering to buy it back from an investor prior to maturity, for which a market quote will be available. The investment in CP will therefore be quite liquid.
- **Principal Parties to a Commercial Paper Transaction :**

(i) The Issuer	(ii) The Head Bank	(iii) The Issuing and Paying Agency
(iv) The Investor	(v) The Dealer	(vi) Credit Rating Agency, e.g., CRISIL, ICRA etc.

(vii) RBI

- **Governing Authority** : Issue of CP is governed by RBI guidelines as amended from time to time.
- **Limitation of Commercial Paper** : CP as a source of financing has its own limitations :
 - (i) Only highly credit rating firms can use it. New and moderately rated firms generally are not in a position to issue CP
 - (ii) CP can neither be redeemed before maturity nor can be extended beyond maturity.

QUESTION NO. 3

Write a Short Note on Repo [Repurchase Option] Agreement ? Briefly state the difference between Repo & Reverse Repo? Or What is Repo and Reverse Repo. (RTP SFM May 2010)

- **A Repurchase Agreement (or repo)** is an agreement of sale of a security with a commitment to repurchase or buy the security back at a specified price and on a specified date .
- **Reverse repo** is a term used to describe the opposite side of a repo transaction. Reverse Repo is a purchase of security with a commitment to sell at a pre-determined price and date. Accordingly, there are two possible motives for entering into a reverse repo: short-term investment of funds, or to obtain temporary use of a particular security.
- **Repos/Reverse Repos are used** :
 - (i) to meet shortfall in cash position
 - (ii) augment returns on funds held
 - (iii) to borrow securities to meet regulatory requirement
 - (iv) An SLR surplus bank and a CRR deficit bank can use the Repo deals as a convenient way of adjusting CRR/SLR positions simultaneously
 - (v) RBI uses Repo and Reverse Repo deals as a convenient way of adjusting liquidity in the system.
- **The securities eligible for trading under Repo/Reverse Repo are:**
 - (i) GOI & State Govt. Securities
 - (ii) Treasury Bills
 - (iii) PSU bonds,
 - (iv) FI bonds & Corporate bonds held in Dematerialised form
- **Issuer** : In India, only RBI, Banks and PDs are allowed to enter into Repos. Financial institutions and others specified can only do reverse Repos.
- **Coupon/Interest terms** :
 - (i) **Computation**: Interest for the period of Repo is the difference between Sale Price and Purchase Price .The amount of interest earned on funds invested in a Repo is determined as follows :

$$\text{Interest earned} = \text{Funds Invested} \times \text{Repo Rate} \times \text{Number of Days}/365$$

- (ii) **Recognition** : Interest should be recognized on a time -proportion basis , both in the books of the buyer and seller.
- (iii) **Time Period** : Interest to be payable on maturity and rounded-off to the nearest rupee. Interest to be calculated on an actual/365-day year basis.
- **Maturity** : Repos are normally done for a minimum maturity period of one day & a maximum maturity period of fourteen days.
- **Minimum denomination and transaction size** : Generally Repo transactions are done in market lots of Rs 5 crores.
- **The essential feature of Repo transaction are** :

- (i) A financial institution places certain securities (presently restricted to Treasury bills) with the buyer and borrows a certain amount of money.
- (ii) On a given date specified in advance (between 14 days to 1 year) the entire transaction is reversed.
- (iii) The difference between the purchase and sale price is the interest or gain to the buyer. Sometimes the seller may also gain from a transaction. This is when the buyer is in need of securities and initiates the transaction.

Difference Between Repo & Reverse Repo :

- Reverse repo is a term used to describe the opposite side of a repo transaction.
- The term Repurchase Agreement (Repo) and Reverse Repurchase Agreement (Reverse Repo) refer to a type of transaction in which money market participant raises funds by selling securities and simultaneously agreeing to repurchase the same after a specified time generally at a specified price, which typically includes interest at an agreed upon rate.
- Such a transaction is called a Repo when viewed from the perspective of the seller of securities (the party acquiring funds) and Reverse Repo when described from the point of view of the supplier of funds.
- Thus, whether a given agreement is termed a Repo or a Reverse Repo depends largely on which party initiated the transaction.
- Under a Repo transaction, there are two counter parties : a lender and a borrower. The borrower in a Repo borrows cash and pledges securities. The lender lends cash and purchases the securities and is said to enter into a Reverse Repo transaction. Hence borrowing by pledging securities is a Repo transaction and lending by accepting the pledge is a Reverse Repo transaction.
- Hence a transaction is a Repo for one party and a Reverse Repo for the other party.

India's Position: Indian Repo market is governed by Reserve Bank of India. At present Repo is permitted between 64 players against Central and State Government Securities (including T-Bills) at Mumbai.

QUESTION NO. 4

Discuss the major sources available to an Indian Corporate for raising foreign currency finances.

- 1. Foreign Currency Term Loan from Financial Institutions:** Financial Institutions provide foreign currency term loan for meeting the foreign currency expenditures towards import of plant, machinery, and equipment and also towards payment of foreign technical knowhow fees.
- 2. Export Credit Schemes:** Export credit agencies have been established by the government of major industrialized countries for financing exports of capital goods and related technical services. These agencies follow certain consensus guidelines for supporting exports under a convention known as the Berne Union. As per these guidelines, the interest rate applicable for export credits to Indian companies for various maturities is regulated. Two kinds of export credit are provided i.e., buyer's and supplier's credit.

Buyer's Credit- Under this arrangement, credit is provided directly to the Indian buyer for purchase of capital goods and/or technical service from the overseas exporter.

Supplier's Credit - This is a credit provided to the overseas exporters so that they can make available medium-term finance to Indian importers.

- 3. External Commercial Borrowings:** Subject to certain terms and conditions, the Government of India permits Indian firms to resort to external commercial borrowings for the import of plant and machinery. Corporates are allowed to raise up to a stipulated amount from the global markets through the automatic route. Companies wanting to raise more than the stipulated amount have to get an approval of the MOF. ECBs include bank loans, supplier's and buyer's credit, fixed and floating rate bonds and borrowing from private sector windows of Multilateral Financial Institution such as International Finance Corporation.
- 4. Euro Issues:** The two principal mechanisms used by Indian companies are Depository Receipts mechanism and Euro convertible Issues. The former represents indirectly equity investment while the latter is debt with an option to convert it into equity.
- 5. Issues in Foreign Domestic Markets:** Indian firms can also issue bonds and Equities in the domestic capital market of a foreign country. In recent year, Indian companies like Infosys Technologies and ICICI have successfully tapped the US equity market by issuing American Depository Receipts (ADRs). Like GDRs, ADRs represent claim on a specific number of shares. The principal difference between the two is that the GDRs are issued in the euro market whereas ADRs are issued in the U.S. domestic capital market.

QUESTION NO. 5

What is interest rate risk, reinvestment risk & default risk & what are the types of risk involved in investments in G-Sec.?

- **Interest Rate Risk:** Interest Rate Risk, market risk or price risk are essentially one and the same. These are typical of any fixed coupon security with a fixed period to maturity. This is on account of inverse relation of price and interest. As the interest rate rises the price of a security will fall. However, this risk can be completely eliminated in case an investor's investment horizon identically matches the term of security.
- **Re-investment Risk:** This risk is again akin to all those securities, which generate intermittent cash flows in the form of periodic coupons. The most prevalent tool deployed to measure returns over a period of time is the yield-to-maturity (YTM) method. The YTM calculation assumes that the cash flows generated during the life of a security is reinvested at the rate of YTM. The risk here is that the rate at which the interim cash flows are reinvested may fall thereby affecting the returns.
- **Default Risk:** This type of risk in the context of a Government security is always zero. However, these securities suffer from a small variant of default risk i.e. maturity risk. Maturity risk is the risk associated with the likelihood of government issuing a new security in place of redeeming the existing security. In case of Corporate Securities it is referred to as credit risk. Government Securities are usually referred to as risk free securities. However, these securities are subject to only one type of risk i.e. interest rate risk. Subject to changes in the overall interest rate scenario, the price of these securities may appreciate or depreciate.

QUESTION NO. 6

What is money market? What are its features? What kind of inefficiencies it is suffering from?

Answer

In a wider spectrum, a money market can be defined as a market for short-term money and financial assets that are near substitutes for money with minimum transaction cost.

Features:

- The term short-term means generally a period upto one year and near substitutes to money is used to denote any financial asset which can be quickly converted into money.
- Low cost.
- It provides an avenue for equilibrating the short-term surplus funds of lenders and the requirements of borrowers.
- It, thus, provides a reasonable access to the users of short term money to meet their requirements at realistic prices.
- The money market can also be defined as a center in which financial institutions congregate for the purpose of dealing impersonally in monetary assets.

Inefficiencies:

- (i) Markets not integrated,
- (ii) High volatility,
- (iii) Interest rates not properly aligned,
- (iv) Players restricted,
- (v) Supply based-sources influence uses,
- (vi) Not many instruments,
- (vii) Players do not alternate between borrowing and lending,
- (viii) Reserve requirements,
- (ix) Lack of transparency,
- (x) Inefficient Payment Systems,
- (xi) Seasonal shortage of funds,
- (xii) Commercial transactions are mainly in cash, and
- (xiii) Heavy Stamp duty limiting use of exchange bills

Chapter 11 - FDI, FII and International Financial Management

QUESTION NO. 1

Write a short note on the following topics :

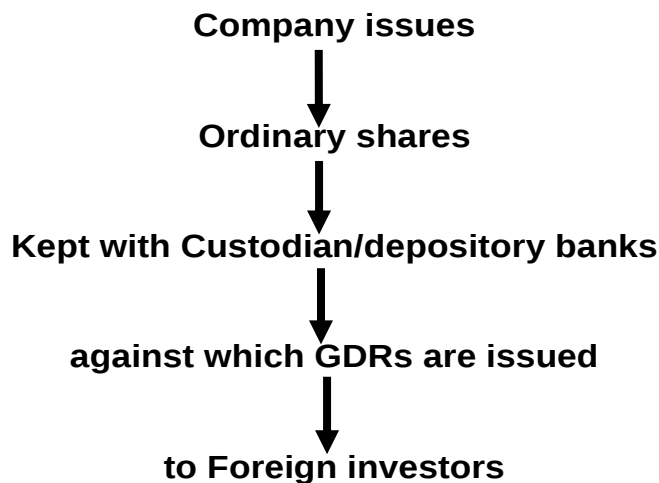
A. FCCB (Foreign Currency Convertible Bonds) Or Explain Briefly the salient features of FCCB. (4 Marks)(Nov 2010)

- A type of convertible bond issued in a currency different than the issuer's domestic currency. In other words, the money being raised by the issuing company is in the form of a foreign currency. A convertible bond is a mix between a debt and equity instrument. It acts like a bond by making regular coupon and principal payments, but these bonds also give the bondholder the option to convert the bond into stock. These types of bonds are attractive to both investors and issuers. The investors receive the safety of guaranteed payments on the bond & are also able to take advantage of any large price appreciation in the company's stock.
- FCCBs are important source of raising funds from abroad. Their salient features are -
 1. FCCB is a bond denominated in a foreign currency issued by an Indian company which can be converted into shares of the Indian Company denominated in Indian Rupees.
 2. Prior permission of the Department of Economic Affairs, Government of India, Ministry of Finance is required for their issue
 3. There will be a domestic and a foreign custodian bank involved in the issue
 4. FCCB shall be issued subject to all applicable Laws relating to issue of capital by a company.
 5. Tax on FCCB shall be as per provisions of Indian Taxation Laws and Tax will be deducted at source.
 6. Conversion of bond to FCCB will not give rise to any capital gains tax in India
- **Advantages of FCCBs**
 1. The convertible bond gives the **investor the flexibility to convert the bond into equity** at a price or redeem the bond at the end of a specified period, normally three years if the price of the share has not met his expectations.
 2. Companies prefer bonds as **it defers the dilution of equity and earnings per share**.
 3. **FCCBs are easily marketable** as investors enjoys option of conversion into equity if resulting to capital appreciation. Further investor is assured of a minimum fixed interest earnings.
- **Disadvantages of FCCBs**
 1. **Exchange Risk is more in FCCBs as interest on bonds would be payable in foreign currency.** Thus companies with low debt equity ratios, large forex earnings potential only opt for FCCBs.
 2. **FCCBs mean creation of more debt and a forex outgo** in terms of interest which is in foreign exchange.
 3. **There is exchange risk** on the interest payment as well as re-payment **if the bonds are not converted into equity shares.**

- **Recent Example:** In the first quarter of 2007 Reliance Communications company raised \$1 billion FCCB. It was one of the biggest FCCBs from India.

B. GDR (Global Depository Receipts) Or Impact of GDRs on Indian Capital Market (SFM, Nov 2009)

- A Global Depository Receipt or Global Depository Receipt (GDR) is a certificate issued by a depository bank, which purchases shares of foreign companies and deposits it on the account.
- Global Depository Receipts facilitate trade of shares, and are commonly used to invest in companies from developing or emerging markets.
- Several international banks issue GDRs, such as JPMorgan Chase, Citigroup, Deutsche Bank, Bank of New York. GDRs are often listed in the Frankfurt Stock Exchange, Luxembourg Stock Exchange and in the London Stock Exchange, where they are traded on the International Order Book (IOB).
- GDR are negotiable instruments issued to Overseas Depository Bank on behalf of an Indian Company to raise funds abroad.
- **The mechanics of a GDR issue may be described with the help of following diagram.**



- **Impact of GDRs on Indian Capital Market** Since the inception of GDRs a remarkable change in Indian capital market has been observed as follows.
 1. Indian stock market to some extent is shifting from Bombay to Luxemburg.
 2. There is arbitrage possibility in GDR issues.
 3. Indian stock market is no longer independent from the rest of the world. This puts additional strain on the investors as they now need to keep updated with worldwide economic events.
 4. Indian retail investors are completely sidelined. By placement of GDRs to Foreign Institutional Investors' plus free pricing implies that retail investors can no longer expect to make easy money on heavily discounted rights/public issues.

As a result of introduction of GDRs a considerable foreign investment has flown into India.
- **Markets of GDR'S**
 1. GDR's are sold primarily to institutional investors.
 2. Demand is likely to be dominated by emerging market funds.

3. Switching by foreign institutional investors from ordinary shares into GDRs is likely.
4. Major demand is also in UK, USA, South East Asia (Hong Kong, Singapore), and to some extent continental Europe (principally France and Switzerland) .

➤ **Profile of GDR investors:** The following parameters have been observed in regard to GDR investors.

1. Dedicated convertible investors
2. Equity investors who wish to add holdings on reduced risk or who require income enhancement.
3. Fixed income investors who wish to enhance returns.
4. Retail investors: Retail investment money normally managed by continental European banks which on an aggregate basis provide a significant base for Euro-convertible issues.

➤ **Characteristics**

1. Holders of GDRs participate in the economic benefits of being ordinary shareholders though they do not have voting rights.
2. GDRs are settled through CEDEL & Euro-clear international book entry systems.
3. GDRs are listed on the Luxemburg stock exchange.
4. Trading takes place between professional market makers on an OTC (over the counter) basis.

➤ **Advantages of GDRs:**

1. The issuer has the benefit of collecting the issue proceeds in foreign currency which may be utilized for meeting the foreign exchange component of the project cost, repayment of foreign currency / loan etc.
2. It has been perceived that a GDR issue has been able to fetch higher prices from international investors than those that a domestic public issue would have been able to extract from Indian investors.
3. GDR does not entitle the holder to any voting rights, so there is no fear of loss of management and control.
4. GDR does not involve any foreign exchange risk to the issuing company , as the shares represented by GDR are expressed in rupees.

➤ **Current Scenario:** It has been perceived that a GDR issue has been able to fetch higher prices from international investors than those that a domestic public issue would have been able to extract from Indian investors.

➤ **Indian Example:** Among the Indian companies, Reliance Industries Ltd. was the first company (1992) to raise funds through a GDR Issue. Recently Tata Motors on 9th Oct 2009 raised \$375 million through a GDR issue, becoming the third company from the Tata Empire, after Tata Steel and Tata Power.

C. Euro Convertible Bonds

➤ A convertible bond is a debt instrument which gives the holders of the bond an

option to convert the bond into a predetermined number of equity shares of the company. Usually, the price of the equity shares at the time of conversion will have a premium element. The bonds carry a fixed rate of interest.

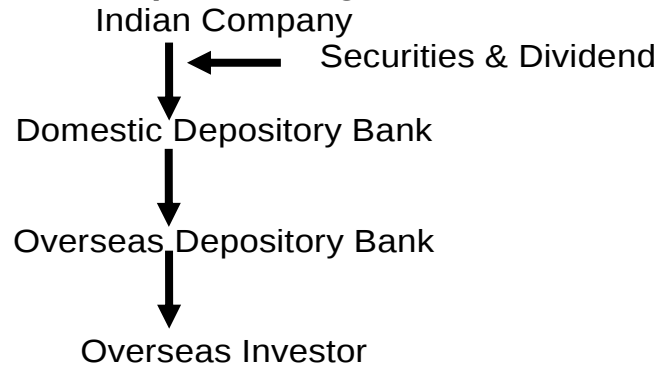
- If the issuer company desires, the issue of such bonds may carry two options viz. –
 - 1. Call Options:(Issuer's Option)** - Where the terms of issue of the bonds contain a provision for call option, the issuer company has the option of calling (buying) the bonds for redemption before the date of maturity of the bonds. Where the issuer's share price has appreciated substantially, i.e. far in excess of the redemption value of the bonds, the issuer company can exercise the option. This call option forces the investors to convert the bonds into equity. Usually, such a case arises when the share prices reach a stage near 130% to 150% of the conversion price. Also if the market interest rate decreases, then the company will exercise the call option on the Bonds and re-market it for the remaining maturity period.
 - 2. Put Options:(Holder's Option)** - A provision of put option gives the holder of the bonds a right to put (sell) his bonds back to the issuer company at a pre-determined price and date. If the market interest rate increases, then the investor will exercise the put option on the Bonds for redemption earlier to the date of maturity.
- In case of Euro-convertible bonds, the payment of interest and the redemption of the bonds will be made by the issuer company in US dollars.
- Indian companies which have opted ECBs issue are Jindal Strips, Reliance, Essar Gujarat, Sterlite etc. Indian companies are increasingly looking at Euro-Convertible bond in place of Global Depository Receipts because GDRs are falling into disfavour among international fund managers.

D. American Depositary Receipts

- **B:** An American Depositary Receipt (abbreviated ADR) represents ownership in the shares of a non-U.S. company that trades in U.S. financial markets. The stock of many non-US companies trade on US stock exchanges through the use of AD` ADRs enable U.S. investors to buy shares in foreign companies without the hazards or inconveniences of cross-border & cross-currency transactions. ADRs carry prices in US dollars, pay dividends in US dollars, and can be traded like the shares of US-based companies.
- The first ADR was introduced by JPMorgan in 1927, for the British retailer Selfridges. Four major commercial banks that provide depository bank services - JPMorgan, Citibank, Deutsche Bank and the Bank of New York Mellon.
- **Statutory Compliance:** Such receipts have to be issued in accordance with the provisions stipulated by the Securities and Exchange Commission of USA (SEC) which are very stringent. Regulations include requirement such as minimum size of issue, reporting to SEC, adherence to US GAAP in reporting etc.
- **Mechanism for ADR issue :** An ADR is generally created by the deposit of the securities of a non-United States company with a custodian bank in the country of

incorporation of the issuing company. The custodian bank informs the depository in the United States that the ADRs can be issued. ADRs are United States dollar denominated and are traded in the same way as are the securities of United States companies.

➤ **The pictorial representation of the process is given below**



➤ **Types of ADRs:** There are three types of ADRs:

1. **Un-sponsored ADRs** are issued without any formal agreement between the issuing company and the depository, although the issuing company must consent to the creation of the ADR facility. For the issuing company, they provide a relatively inexpensive method of accessing the United States capital markets (especially because they are also exempt from most of reporting requirements of the Securities and Exchange Commission).
 2. **Sponsored ADRs** are created by a single depository which is appointed by the issuing company under rules provided in a deposit agreement. There are two broad types of sponsored ADRs
 3. **Restricted ADRs (RADRs)** These are restricted with respect to the type of buyer which is allowed and are privately placed. They are allowed to be placed only among selected accredited investors and face restrictions on their resale. As these are not issued to the general public, they are exempt from reporting requirements of the Securities and Exchange Commission and are not even registered with it. Restricted ADR issues are sometimes issued by companies that seek to gain some visibility and perhaps experience in the United States capital markets before making an unrestricted issue.
 4. **Unrestricted ADRs (URADRs)** are issued to and traded by the general investing public in United States capital markets. There are three classes of URADR, each increasingly demanding in terms of reporting requirements of the Securities and Exchange Commission, but also increasingly attractive in terms of degree of visibility provided. The three classes of Unrestricted ADRs are
 - a) Level 1 URADRs ,
 - b) Level II URADRs and
 - c) Level III URADRs
- a) **Level 1** - This is the most basic and easiest type of ADR where foreign companies either don't qualify or don't wish to have their ADR listed on an exchange. Level 1 ADRs are found on the over-the-counter market and are an easy and inexpensive way to gauge interest for its securities in North America. Level 1 ADRs also have the loosest requirements from the Securities and Exchange Commission (SEC).

- b) Level 2** - When a foreign company wants to set up a Level 2 program, it has to follow slightly more) requirements from the SEC, e.g. to file a registration statement with the SEC under SEC regulation. In addition to their filings, the company is required to follow GAAP standards. Though this is a little complicated procedure but the advantage is that not only the shares can be listed on U.S. stock exchanges but they also get higher visibility trading volume. These exchanges include the New York Stock Exchange (NYSE), NASDAQ, and the American Stock Exchange (AMEX).
- c) Level 3** - Since the company is required to adhere to stricter rules that are similar to those followed by U.S. companies, this level is most prestigious of the three; this is when an issuer floats a public offering of ADRs on a U.S. exchange. Level 3 ADRs are able to raise capital and gain substantial visibility in the U.S. financial markets. Setting up a Level 3 program is equivalent to the foreign company taking some of its shares from its home market and depositing them to be traded in the U.S. In addition to filing requirements, any material information given to shareholders in the home market, must be filed with the SEC through requisite Forms.

QUESTION NO. 2

Write a short note on Euro-Issues ?

- The term Euro-issue, in the Indian context, denotes that the issue is listed on a European Stock Exchange.
However, subscription can come from any part of the world except India. Finance can be raised by Global Depository Receipts (GDRs), Foreign Currency Convertible Bonds (FCCB) and pure debt bonds. However, GDRs, and FCCBs are more popular instruments.
- **Eligibility of Companies for Euro-Issue:** Companies with following profile are the ones that may embark on a Euro-issue:
 1. Good financial track record at least for a period of three years,
 2. Market price stability
 3. Market capitalization
 4. Good industry prospects
 5. Good company growth including EPS
 6. Better quality management
 7. Sound investment policies
- **Advantages of Euro-issues:**

For Company: The advantages of a Euro-issue for a company are many. Some of which are :

1. **Attractive Pricing:** First of all the attractive pricing of Euro-issues has drawn the attention of Indian companies. Euro issues are priced around the market price of share. In fact, in the case of Euro-convertibles. the shares eventually get issued at a premium to the ruling-market price. This results in dramatic reduction in the cost of the capital to the company.
2. **Cost of issue:** If we compare the cost of Euro issue which is generally 4.5% with 17 to 20% overdraft rate, that has to be paid to the bankers, the former seem to be quite attractive & that is why business houses are increasingly resorting to the Euro-issues.

- 3. Foreign Exchange Fluctuation:** The foreign exchange fluctuations are to the account of investor and not to the company. Since the investors in Euro-issues become shareholders, a depreciation in the value of the Indian rupee only affects investor profits and does not lead to any extra outflow for the company.
- 4. Little Monitoring:** Another advantage of Euro-issues, which was earlier available and has however now been frozen by the revised guidelines, arose out of the fact that earlier there was very little monitoring over the end-use of funds collected through such issues.
- 5. Image:** This enhances the image of the company's products, services or financial instruments in a market place outside their home country. This also provides a mechanism for raising capital or as a vehicle for an acquisition.

For Investors: Euro issues also provides a number of advantages to foreign investors. Increasingly, investors are aiming to diversify their portfolios internationally. As a result, more and more investors are using GDRs route. The investors are, however, benefited since.

1. GDRs are usually quoted in dollars, and interest and dividend payments are also in dollars.
2. GDRs overcome obstacles that mutual funds, pension funds and other institutions may have in purchasing and holding securities outside their domestic markets.
3. Global custodians or safe-keeping charges are eliminated, saving GDR investors 30 to 60 basis points annually.
4. GDRs are as liquid as the underlying securities because the two are interchangeable,
5. GDRs are negotiable.
6. GDRs overcome foreign investment restrictions.

➤ **Disadvantages of Euro-Issue**

1. As straight equity, a GDR issue would be immediately earnings dilutive.
2. Pricing of GDRs are expected to be at a discount to the local market price.
3. It is sometimes necessary to use warrants with GDRs to disguise discount, which can increase dilution,
4. In India, GDR issues have an uneven track record for international investors.

QUESTION NO. 3

Write a short note on Leading And Lagging ?

- This technique is used by subsidiaries for optimizing cash flow movements by adjusting the timing of payments to determine expectations about future currency movements.
- MNCs accelerate (lead) or delay (lag) the timing of foreign currency payments through adjustment of the credit terms extended by one unit to another.
- The technique helps to reduce foreign exchange exposure or to increase available working capital.
- Firms accelerate payments of hard currency payables and delay payments of soft currency payables in order to reduce foreign exchange exposure.
- A MNC in the USA has subsidiaries all over the world. A subsidiary in India purchases its supplies from another subsidiary in Japan. If the Indian subsidiary expects the rupee to fall against the yen, then it shall be the objective of that firm to accelerate the timing of its payment before the rupee "depreciates. Such a strategy

is called Leading. On the other hand, if the Indian subsidiary expects the rupee to rise against the yen then it shall be the objective of that firm to delay the timing of its payment before the rupee appreciates. Such a strategy is called Lagging. MNCs should be aware of the government restrictions in such countries before availing of such strategies.

The advantages associated with-Leading and Lagging are:

1. No formal recognition of indebtedness is required and the credit terms can be altered by increase/decrease of the terms on the accounts.
2. It helps in minimizing foreign exchange exposure and helps in transferring liquidity among affiliates by changing credit terms and is dependent on the opportunity cost of funds to both paying and receiving units.
3. It is an aggressive technique aimed at taking advantage of expected revaluations and devaluations of currency movements.

QUESTION NO. 4

Write a short note on Exposure Netting ?

- **Meaning:** Exposure Netting refers to offsetting exposures in one currency with Exposures in the same or another currency, where exchange rates are expected to move in such a way that losses or gains on the first exposed position should be offset by gains or losses on the second currency exposure.
- **Objective:** The objective of the exercise is to offset the likely loss in one exposure by likely gain in another.
- It is a technique of optimizing cash flow movements with the combined efforts of the subsidiaries thereby saving administrative and transaction costs resulting from currency conversion.
- There is a co-ordinate international interchange of materials, finished products and parts among the different units of MNC with many subsidiaries buying /selling from/to each other. Netting helps in minimizing the total volume of inter-company fund flow.

Advantages derived from netting system includes:

1. Reduces the number of cross-border transactions between subsidiaries thereby decreasing the overall administrative costs of such cash transfers
2. Reduces the need for foreign exchange conversion and hence decreases transaction costs associated with foreign exchange conversion.
3. Improves cash flow forecasting since net cash transfers are made at the end of each period
4. Gives an accurate report and settles accounts through coordinated efforts among all subsidiaries

There are two types of Netting :

1. **Bilateral Netting System** - It involves transactions between the parent and a subsidiary or between two subsidiaries. If subsidiary X purchases \$ 20 million worth of goods from subsidiary Y and subsidiary Y in turn buy \$ 30 million worth of goods from subsidiary X, then the combined flows add up to \$ 50 million. But in a bilateral netting system subsidiary X would pay subsidiary Y only \$ 10 million. Thus bilateral netting reduces the number of foreign exchange

transactions and also the costs associated with foreign exchange conversion. A more complex situation arises among the parent firm and several subsidiaries paving the way to multinational netting system.

- 2. Multilateral Netting System**-Each affiliate nets all its inter affiliate receipts against all its disbursements. It transfers or receives the balance on the position of it being a net receiver or a payer thereby resulting in savings in transfer / exchange costs. For an effective multilateral netting system, these should be a centralized communication system along with disciplined subsidiaries. This type of system calls for the consolidation of information and net cash flow positions for each pair of subsidiaries.

Subsidiary P sells \$ 50 million worth of goods to Subsidiary Q, Subsidiary Q sells \$ 50 million worth of goods to Subsidiary R and Subsidiary R sells \$ 50 million worth of goods to Subsidiary P. Through multilateral netting inter affiliate fund transfers are completely eliminated.

QUESTION NO. 5

Write a short note on Application of Double taxation agreements on Global depository receipts.? **(RTP SFM May 2010)**

- a) During the period of judiciary ownership of shares in the hands of the overseas depository bank, the provisions of avoidance of double taxation agreement entered into by the Government of India with the country of residence of the overseas depository bank will be applicable in the matter of taxation of income from dividends from the underline shares and the interest on foreign currency convertible bonds.
- b) During the period if any, when the redeemed underline shares are held by the non-residence investors on transfer from fiduciary ownership of the overseas depository bank, before they are sold to resident purchase` the avoidance of double taxation agreement entered into by the government of India with the country of residence of the non-resident investor will be applicable in the matter of taxation of income from dividends from the underline shares, or interest on foreign currency convertible bonds or any capital gains arising out of the transfer of the underline shares.

QUESTION NO. 6

Write a short note on Forfaiting.

Forfaiting: During recent years the forfaiting has acquired immense importance as a source of financing. It means 'surrendering' or relinquishing rights to something. This is very commonly used in international practice among the exporters and importers. In the field of exports, it implies surrenders by an exporter of the claim to receive payment for goods or services rendered to an importer in return for cash payment for those goods and services from the forfaiter (generally a bank), who takes over the importer's promissory notes or the exporters' bills of exchange. The forfaiter, thus assumes responsibility for the collection of such documents from the importer. This arrangement is to help exporter, however, there is always a fixed cost of finance by way of discounting of the debt instruments by the forfaiter.

Forfaiting assumes the nature of a purchase transaction without recourse to any previous holder in respect of the instrument of debts at the time of maturity in future. The exporter generally takes bill or promissory notes to the forfaiter which buys the

instrument at a discount from the face value. The importer party's bank has already guaranteed payment unconditionally and irrevocably, and the exporter party's bank now takes complete responsibility for collection without recourse to exporter. Thus a forfaiting arrangement eliminates all credit risks. It also protects against the possibility that interest rate may fluctuate before the bills or notes are paid off. Any adverse movement in exchange rate, any political uncertainties or business conditions may change to the disadvantage of the parties concerned. The forfaiting business is very common in Europe and has come as an important source of export financing in leading currencies.

QUESTION NO. 7

Write a brief note on External Commercial Borrowings (ECBs).

ECB include bank loans, supplier credit, securitized instruments, credit from export credit agencies and borrowings from multilateral financial institutions. These securitized instruments may be FRNs, FRBs etc. Indian corporate sector is permitted to raise finance through ECBs within the framework of the policies and procedures prescribed by the Central Government. Multilateral financial institutions like IFC, ADB, AFIC, CDC are providing such facilities while the ECB policy provides flexibility in borrowing consistent with maintenance of prudential limits for total external borrowings, its guiding principles are to keep borrowing maturities long, costs low and encourage infrastructure/core and export sector financing which are crucial for overall growth of the economy. The government of India, from time to time changes the guidelines and limits for which the ECB alternative as a source of finance is pursued by the corporate sector. During past decade the government has streamlined the ECB policy and procedure to enable the Indian companies to have their better access to the international financial markets.

The government permits the ECB route for variety of purposes namely expansion of existing capacity as well as for fresh investment. But ECB can be raised through internationally recognized sources. There are caps and ceilings on ECBs so that macro economy goals are better achieved. Units in SEZ are permitted to use ECBs under a special window.

QUESTION NO. 8

Distinguish between Forfeiting and Factoring.

Factoring	Forfeiting
This may be with recourse or without recourse to the supplier.	This is without recourse to the exporter. The risks are borne by the forfeiter.
It usually involves trade receivables of short maturities.	It usually deals in trade receivables of medium and long term maturities.
It does not involve dealing in negotiable instruments.	It involves dealing in negotiable instrument like bill of exchange and promissory note.
The seller (client) bears the cost of factoring.	The overseas buyer bears the cost of forfeiting.
Usually it involves purchase of all book debts or all classes of book debts	Forfeiting is generally transaction or project based. Its structuring and costing is case to case basis.
Factoring tends to be a 'case of' sell of debt obligation to the factor, with no secondary market.	There exists a secondary market in forfeiting. This adds depth and liquidity to forfeiting.

Chapter 12 - Foreign Exchange Exposure & Risk Management

QUESTION NO. 1

What are the various types of Foreign Exchange Risk ?

There are several types of risk that an investor should consider and pay careful attention to. Deciding the potential return while respecting risk is the age-old decision that investors must make.

1. **Financial Risk:** It is the potential loss or danger due to the uncertainty in movement of foreign exchange rates, interest rates, credit quality, liquidity position, investment price, commodity price, or equity price, as well as the unpredictability of sales price, growth, and financing capabilities. Balance sheet and cash flow hedges as well as derivatives tools mitigate financial risks by reducing uncertainty faced by firms.
2. **Business Risk:** On a micro scale, business risk involves the variability in earnings due to variation in the cash inflows and outflows of capital investment projects undertaken. This risk, also known as investment risk, may materialize because of forecasting errors made in market acceptance of products, future technological changes, and changes in costs related to projects. The firm can reduce this risk, also referred to as portfolio risk, by seeking out capital projects and merger candidates that have a low or negative correlation with its present operations.
3. **Credit or Default Risk:** This is the risk that a company or individual will be unable to pay the contractual interest or principal on its debt obligations. This type of risk is of particular concern to investors who hold bonds within their portfolio. Government bonds have the least amount of default risk and least amount of returns while corporate bonds tend to have the highest amount of default risk but also the higher interest rates. Bonds with lower chances of default are considered to be "investment grade," and bonds with higher chances of default are considered to be junk bonds.
4. **Country Risk:** This refers to the risk that a country would not be able to honour its financial commitments. When a country defaults it can harm the performance of all other financial instruments in that country as well as other countries it has relations with. Country risk applies to stocks, bonds, mutual funds, options and futures that are issued within a particular country. This type of risk is most often seen in emerging markets or countries that have a severe deficit.
5. **Interest Rate Risk:** It refers to the change in the interest rates. A rise in interest rates during the term of an investor's debt security hurts the performance of stocks and bonds.
6. **Political Risk:** This represents the financial risk that a country's government will suddenly change its policies.
7. **Market Risk:** It is the day-to-day fluctuations in a stocks price. Also referred to as volatility. Market risk applies mainly to stocks and options. As a whole, stocks tend to perform well during a bull market and poorly during a bear market.
8. **Foreign Exchange Risk:** When investing in foreign countries one must consider the fact that currency exchange rate can change the price of the asset as well. Foreign exchange risk applies to all financial instruments that are in a currency other than your domestic currency. As an example, if you are a resident of America and invest in some Canadian stock in Canadian dollars, even if the share value appreciates, you may lose money if the Canadian dollar depreciates in relation to the American dollar.

QUESTION NO. 2

What are the Difference between Options and Futures?

Distinction between Options and Futures: There are certain fundamental differences between a futures and an option contract. Let us look at the main comparative features given below:

Options	Futures
Only the seller (writer) is obliged to perform	Both the parties are obligated to perform.
Premium is paid by the buyer to the seller	No premium is paid by any party.
Loss is restricted while there is unlimited gain potential loss for the futures for the option buyer.	There is potential/risk for unlimited gain/ buyer.

QUESTION NO. 3

Write short Note on

A. ARBITRAGE

(SFM Nov 2008)

- **Meaning** : Arbitrage by definition is a financial transaction that makes an immediate profit without involving any risk. Arbitrage is a strategy to take advantage of price differential of a product in different markets. An arbitrageur makes money by buying an asset at low price in a market and selling it in any other market at a relatively higher price.
- **For instance.** If one can buy an asset for \$5, sell it for \$20 and make a profit of \$15 that is arbitrage. The \$15 gain represents an arbitrage profit.
- **Arbitrage profits are the result of**
 - a) the difference in exchange rates at two different exchange centres,
 - b) the difference, due to interest yield which can be earned at different exchanges.
- Thus depending upon the nature of deal, arbitrage maybe of space and time arbitrage. The space arbitrage is because of separation of two exchange markets due to physical dispersion wherein the rates may vary while on the other hand in the time arbitrage an investor may gain by executing a spot and forward deal to buy and sell a currency.
- **Types of Arbitrage**
 1. **Geographical/Space Arbitrage** - It occurs when one currency sells for two prices in two different markets.
 2. **Cross - Rate Arbitrage** - In a given market, exchange rates for currencies A and B and for currencies A and C imply an exchange rate called a cross - rate between currencies B and C. If the rate implied for C does not match the actual rate between C in some other market, an arbitrage opportunity exists.
 3. **Time Arbitrage** - In time arbitrage, an investor may gain by executing a spot and forward deal to buy and sell a currency.

B. NOSTRO, VOSTRO AND LORO ACCOUNT

- In interbank transactions, foreign exchange is transferred from one account to another account and from one center to another center. Therefore, the banks maintain three types of current accounts in order to facilitate quick transfer of funds in different currencies. These accounts are Nostro, Vostro and Loro accounts meaning "our", "your" and "their".

- A bank's foreign currency account maintained by the bank in a foreign country and in the home currency of that country is known as Nostro Account or "our account with you". For example. An Indian bank's Swiss franc account with a bank in Switzerland.
- Vostro account is the local currency account maintained by a foreign bank/branch. It is also called "your account with us". For example, Indian rupee account maintained by a bank in Switzerland with a bank in India.
- The Loro account is an account wherein a bank remits funds in foreign currency to another bank for credit to an account of a third bank.

QUESTION NO. 4

Write a short note on INTEREST RATE CAP/ FLOOR/COLLAR?

(Nov 10)

INTEREST RATE CAP

- An interest rate cap is a derivative in which the buyer receives payments at the end of each period in which the interest rate exceeds the agreed strike price.
- It is a type of European Call Option and for this buyer is required to pay premium.
- In other words A caplet is an interest rate call option that provides the purchaser an upper limit on interest rates.
- The payoff (Gross Profit) of a cap is given by the following formula:
- $(\text{Actual Interest Rate} - \text{Strike or Floating Rate}) \times (\text{Days to maturity} / 360) \times (\text{Nominal Loan Amount})$
- **An interest rate cap is characterized by:**
 - ✓ a notional principal amount upon which interest payments are based;
 - ✓ an interest rate index, typically some specified maturity of LIBOR;
 - ✓ a cap rate, which is equivalent to a strike or exercise price on an option; and
 - ✓ the period of the agreement, including payment dates and interest rate reset dates.

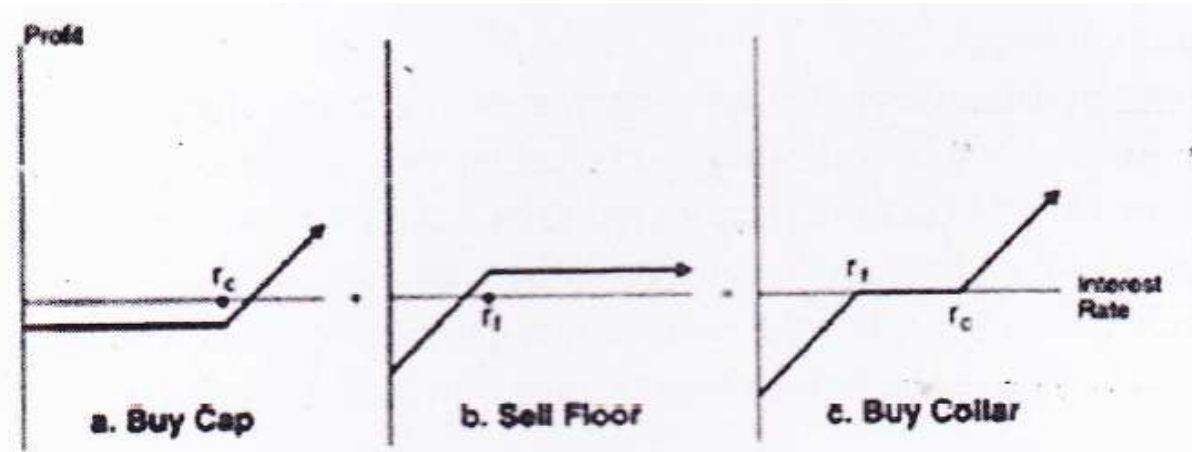
INTEREST RATE FLOOR

- An interest rate floor is a derivative in which buyer of the floor receives money if on the maturity, the interest rate is below the agreed strike price of the floor.
- It is a type of European Put Option and for this buyer is required to pay premium.
- A floor let is an interest rate put option that provides the purchaser an lower limit, on interest rates
- The payoff (Gross Profit) of a Floor is given by the following formula:
- $(\text{Strike or Floating Rate} - \text{Actual Interest Rate}) \times (\text{Days to maturity} / 360) \times (\text{Nominal Loan Amount})$

INTEREST RATE COLLAR

- **Collar can be created in two manner:**
- Buy a collar (whereby you buy a cap and sell a floor both with the same expiry but different strike prices and notionals)
Premium is received by Selling a Floor and Premium is paid by Buying a Cap.
- Sell a collar (whereby you sell a cap and buy a floor both with the same expiry but different strike prices and notionals)
Premium is received by Buying a Floor and Premium is paid by Selling a Cap.
- When the premium of the floor exactly matches that of the cap this is known as a Zero Cost Collar.

- An Interest Rate Collar sets a maximum (cap) and minimum (floor) boundary on a given floating rate
- Interest rates quoted in cap/floor & Collar agreements follow money market day-count conventions, so that payment calculations assume a 360-day year.
- The figure illustrates the payoff to buying a one-period zero-cost interest rate collar.



QUESTION NO. 5

Explain the various types of risks to which the Swap Dealer is exposed to?
(RTP May 2010)

In the process of swap, the role of swap dealer is significant insofar as it brings together two counter-parties whose interests are complementary to each other. For this role, it takes a small part of the interest payment flow. Since the principal amount is large, even a small percentage of the interest payment adds considerably to its profit. But, on the other hand, the swap dealer has to face a variety of risks. These different forms of risks are as follows:

a) Interest-rate Risk: Interest-rate risk arises when the interest rate on a particular loan fails to keep abreast of the movement of the market interest rate. Thus it can be said that the fixed loans under the swap carry higher risk. On the contrary, floating interest rate should not be risky because it changes with the changing profile of the money market. But it does carry risk at least between two reset dates when the interest rate of a particular loan may not be reset despite changes in the market interest rates.

The swap dealer is faced with the interest-rate risk, especially when it has a naked position in the swap. Suppose the swap dealer pays fixed-rate interest to the enduser or to the counter-party; and in exchange it receives LIBOR. If LIBOR moves to the swap dealer's disadvantage, it will have to pay more in form of interest. But the risk can be reduced if the swap dealer does not have a naked position and passes on the risk to another counter-party.

b) Exchange-rate Risk: Changes in the exchange rate are a common affair in the foreign exchange market. If the swap dealer pays fixed rate of interest on a loan denominated in a currency which is going to depreciate, it will have to pay a greater amount of interest to the end-user. Here it may be noted that if the swap dealer faces both the interest-rate risk and the exchange-rate risk simultaneously, the quantum of risk will be very large. If the two risks are positively correlated, the risk

will be still higher. But if they are negatively correlated or uncorrelated, the risk will not be so high.

- c) **Credit Risk:** Credit risk arises when a counter-party defaults payment to the swap dealer. In such cases, the contract is terminated. However, termination of the contract does not protect the swap dealer from loss. This is because the contract is terminated only with one counter-party. The other needs payment which the swap dealer has to make.
- d) **Mismatch Risk:** There are occasions when it is difficult for the swap dealer to find a perfect match for a counter-party. When a perfect match is not available, the swap dealer offers concessions to attract suitable counter-party. Any such concession causes loss to it. Sometimes after giving concessions, perfect match is not available on different counts, such as notional principal, maturity, swap coupon, reset dates, etc. The swap dealer may have to pay more interest.
- e) **Sovereign Risk:** Sovereign risk arises when the government of a country to which one of the two counter-party belongs, puts restrictions on the flow of foreign exchange. This entails upon payments received by the swap dealer. It should not be called to default risk or credit risk because the counter-party is willing to make payments. It is the governmental restriction that comes in the way.
- f) **Delivery Risk:** Delivery risk arises when the two counter-parties are located in two different time zones so that the date of maturity differs by one day. However, the swap dealer is not very much affected by it.

QUESTION NO. 6

**“Operations in foreign exchange market are exposed to a number of risks.”
Discuss.**

A firm dealing with foreign exchange may be exposed to foreign currency exposures. The exposure is the result of possession of assets and liabilities and transactions denominated in foreign currency. When exchange rate fluctuates, assets, liabilities, revenues, expenses that have been expressed in foreign currency will result in either foreign exchange gain or loss. A firm dealing with foreign exchange may be exposed to the following types of risks:

- a) **Transaction Exposure:** A firm may have some contractually fixed payments and receipts in foreign currency, such as, import payables, export receivables, interest payable on foreign currency loans etc. All such items are to be settled in a foreign currency. Unexpected fluctuation in exchange rate will have favorable or adverse impact on its cash flows. Such exposures are termed as transactions exposures.
- b) **Translation Exposure:** The translation exposure is also called accounting exposure or balance sheet exposure. It is basically the exposure on the assets and liabilities shown in the balance sheet and which are not going to be liquidated in the near future. It refers to the probability of loss that the firm may have to face because of decrease in value of assets due to devaluation of a foreign currency despite the fact that there was no foreign exchange transaction during the year.
- c) **Economic Exposure:** Economic exposure measures the probability that fluctuations in foreign exchange rate will affect the value of the firm. The intrinsic value of a firm is

calculated by discounting the expected future cash flows with appropriate discounting rate. The risk involved in economic exposure requires measurement of the effect of fluctuations in exchange rate on different future cash flows.

QUESTION NO. 7

Explain the terms 'Intrinsic Value of an Option' & the 'Time Value of an Option'? (Nov 2004)

OR

Distinguish between Intrinsic Value & Time Value of an option? (May 2006)

**Option Premium is the component of two parts:
Intrinsic value + Time Value of an option**

Intrinsic Value:

- Intrinsic Value is the gross profit that the option buyer would realize upon immediate exercise of the option.
- It is defined as the difference between the option's strike price and the stock's actual current price.
- Intrinsic Value is the value or profit that any given option would have if it were exercised today.
- It can never be negative (always equal to or greater than zero).
- Intrinsic Value of Call Option = Maximum of (0, Market Price - Exercise Price)
- Intrinsic Value of Put Option = Maximum of (0, Exercise Price - Market Price).
- An option which is out of the money or at the money has zero intrinsic value.

Example: If Wipro stock is selling at Rs 105, and Call Option on Wipro stock is Rs 100, then Intrinsic Value of Wipro stock is Rs 5 (Rs 105 - 100). Again if Wipro stock is selling at Rs 105 and Put Option on Wipro is Rs 100 then Intrinsic Value will be zero (Rs 100 - Rs 105 = -5) as it cannot be negative.

Time Value of Option:

- Time Value of Option is the amount by which the option price exceeds the Intrinsic Value. On the expiration date, the time value of option is zero and the premium is entirely represented by the Intrinsic Value.
- If there is At The Money or Out Of The Money position, it means there is no intrinsic value and the entire premium is represented by the time value.
- Time Value is basically the risk premium that the seller requires, to provide the option buyer with the right to buy/sell the stock up to the expiration date. This component may be regarded as "insurance premium" of the option.
- This is also known as extrinsic value. Time Value decays over time. In other words, the time value of an option is directly related to how much time an option has until expiration. i.e. lesser the time, lesser is the time value.

Example: If Wipro stock's current market price is ` 20 Exercise Price is ` 100 Call Option Premium on Wipro stock is Rs 25. Then the time value of option in such case will be Rs 5 (Option Premium Rs 25 - Intrinsic Value Rs 20 = Time Value Rs 5)

Chapter 13 - Merger and Acquisition

QUESTION NO. 1

What are the Types of Mergers?

- **Horizontal merger**- The two companies which have merged are in the same industry, normally the market share of the new consolidated company would be larger and it is possible that it may move closer to being a monopoly or a near monopoly.
- **Vertical merger**- The merger of two companies which are in different field altogether, the coming together of two concerns.
- **Reverse merger**- Where, in order to avail benefit of carry forward of losses which are available according to tax law only to the company which had incurred them, the profit making company is merged with companies having accumulated losses.
- **Conglomerate Mergers**: Such mergers involve firms engaged in unrelated type of business operations. In other words, the business activities of acquirer and the target are not related to each other horizontally (i.e., producing the same or competing products) nor vertically (Having relationship of buyer and supplier).
- **Congeneric Merger**: In these mergers, the acquirer and the target companies are related through basic technologies, production processes or markets.

QUESTION NO. 2

What is a Takeover by Reverse Bid or Reverse Takeover?

- **Meaning**: It is the act of a smaller company gaining control over a larger one .In ordinary case, the company taken over is the smaller company; in a 'Reverse Takeover', a smaller company gains control of a larger one. The concept of takeover by reverse bid, or of reverse merger, is thus not the usual case of amalgamation of a sick unit which is non-viable with a healthy or prosperous unit but is a case whereby the entire undertaking of the healthy and prosperous company is to be merged and vested in the sick company which is non viable.
- **Tests For Identifying Takeover by Reverse Bid**:
The three tests in a takeover by reverse bid that are required to be satisfied are, namely,
 - a) the assets of the transferor company are greater than the transferee company,
 - b) equity capital to be issued by the transferee company pursuant to the acquisition exceeds its original issued capital, and
 - c) the change of control in the transferee company through the introduction of a minority holder or group of holders.

Takeover by reverse bid could happen where already a significant percent of the shareholding is held by the transfer company, to exploit economies of scale, to enjoy better trading advantages and other similar reasons.
- **Application of the concept of “takeover by reverse bid”** The concept of takeover by reverse bid has been successfully employed in schemes formulated for revival and rehabilitation of sick industrial companies under the Sick Industrial Companies (Special Provisions) Act 1985.
- **Indian Example**: A recent example of a non-sick unit 'reverse merger' was that of ICICI Bank (smaller unit) merging with ICICI Ltd. (larger unit) to form ICICI Bank

Ltd. The aim was to give the company an identity of a 'Universal Banking Company'.

QUESTION NO. 3

How to Defend a company in a Takeover Bid ?

- The speed with which a hostile takeover is attempted puts the target Company at a disadvantage. One of observations on the prevailing regulations pertaining to takeover is that, there is very little scope for a target company to defend itself in a takeover battle.
- **Defensive Tactics:** A target company can adopt a number of tactics to defend itself from hostile takeover through a tender offer.
 - a) **Divestiture:** In a divestiture the target company divests or spins off some of its businesses in the form of an independent, subsidiary company. Thus, reducing the attractiveness of the existing business to the acquirer.
 - b) **Crown jewels:** When a target company uses the tactic of divestiture it is said to sell the crown jewels. In some countries such as the UK, such tactic is not allowed once the deal becomes known and is unavoidable.
 - c) **Poison pill:** Sometimes an acquiring company itself becomes a target when it is bidding for another company. The tactics used by the acquiring company to make itself unattractive to a potential bidder is called poison pills. For instance, the acquiring company may issue substantial amount of convertible debentures to its existing shareholders to be converted at a future date when it faces a takeover threat. The task of the bidder would become difficult since the number of shares to having voting control of the company increases substantially.
 - d) **Poison Put:** In this case the target company issue bonds that encourage holder to cash in at higher prices. The resultant cash drainage would make the target unattractive.
 - e) **Greenmail:** Greenmail refers to an incentive offered by management of the target company to the potential bidder for not pursuing the takeover. The management of the target company may offer the acquirer for its shares a price higher than the market price.
 - f) **White knight:** In this a target company offers to be acquired by a friendly company to escape from a hostile takeover. The possible motive for the management of the target company to do so is not to lose the management of the company. The hostile acquirer may change the management.
 - g) **White squire:** This strategy is essentially the same as white knight and involves sell out of shares to a company that is not interested in the takeover. As a consequence, the management of the target company retains its control over the company.
 - h) **Golden parachutes:** When a company offers hefty compensations to its managers if they get ousted due to takeover, the company is id to offer golden parachutes. This reduces their resistance to takeover.
 - i) **Pac-man defense:** This strategy aims at the target company making a counter bid for the acquirer company. This would force the acquirer to defend itself and consequently may call off its proposal for takeover.

QUESTION NO. 4

What a short note on Reasons for demerger and different ways of demerger?

- **Reasons For Demerger:** There are various reasons for divestment or demerger viz.,

- a) To pay attention on core areas of business;
- b) The Division's/business may not be sufficiently contributing to the revenues;
- c) The size of the firm may be too big to handle;
- d) The firm may be requiring cash urgently in view of other investment opportunities.

- **Different ways of demerger:** Different ways of divestment or demerger are as follows:
- **Sell off:** A sell off is the sale of an asset, factory, division, product line or subsidiary by one entity to another for a purchase consideration payable either in cash or in the form of securities.
- **Spin-off:** In this case, a part of the business is separated and created as a separate firm. The existing shareholders of the firm get proportionate ownership. So there is no change in ownership and the same shareholders continue to own the newly created entity in the same proportion as previously in the original firm. The management of spun-off division is however, parted with. Spin-off does not bring fresh cash. The reasons for spin off may be:
 - a) Separate identity to a part/division.
 - b) To avoid the takeover attempt by a predator by making the firm unattractive to him since a valuable division is spun-off.
 - c) To create separate Regulated and unregulated lines of business.
- **Split-up:** This involves breaking up of the entire firm into a series of spin off (by creating separate legal entities). The parent firm no longer legally exists and only the newly created entities survive. For instance a corporate firm has 4 divisions namely A, B, C, D. All these 4 division shall be split-up to create 4 new corporate firms with full autonomy and legal status. The original corporate firm is to be wound up. Since demerged units are relatively smaller in size, they are logistically more convenient and manageable. Therefore, it is understood that spin-off and split-up are likely to enhance shareholders value and bring efficiency and effectiveness.
- **Carve outs:** This is like spin off however, some shares of the new company are sold in the market by making a public offer, so this brings cash. In carve out, the existing company may sell either majority stake or minority stake, depending upon whether the existing management wants to continue to control it or not.
- **Sale of A Division:** In the case of sale of a division, the seller company is demerging its business whereas the buyer company is acquiring a business. For the first time the tax laws in India propose to recognize demerge`

Recent Example: Demerger has been realized as "a powerful tool for facilitating business growths. Creating shareholder value through Demerger is the flavor of the month. There are many instances of the recent demergers in Corporate India. Demergers are the in-thing in corporate India at the moment. The recent announcement by Bajaj Auto on planned demerger of the company is the latest.

ZEE Telefilms (ZTL), the media company, which is one of the largest listed entity with a market capitalization in excess of Rs 12,000 crore and revenues of about Rs 1,500 crore, has announced that it will hive off operations into four units, each focused on a certain line of business. The another biggest example of demerger in recent times is

the division of the Reliance empire where the oil and chemical business remained with Mr. Mukesh Ambani, while power, financial services and telecom were hived off to Mr. Anil Ambani.

QUESTION NO. 5

What a short note on LBO?

- **Meaning: A Leveraged buy-out (LBO)** is an acquisition of a company in which the acquisition is substantially financed through debt. Typically in the LBO 90% or more of the purchase price is financed with debt.
- While some leveraged buyouts involve a company in its entirety most involve a business unit of a company. After the buyout, the company invariably becomes a Private Company.
- A large part of the borrowings is secured by the firm's assets, and the lenders, because of a high risk, take a portion of the firm's equity. Junk bonds have been routinely used to raise amounts of debt needed to finance LBO transaction.
- The success of the entire operation it depends on their ability to improve the performance of the unit, curtail its business risk, exercise cost controls and liquidate disposable asset. If they fail to do so, the high fixed financial costs can jeopardize the venture.
- An attractive candidate for acquisition through leveraged buyout should possess three basic attributes
 - a) If firm have a good position in its industry with a solid profit history and reasonable expectations of growth.
 - b) The firm should have a relatively low level of debt and a high level of bankable assets that can be used as loan collateral.
 - c) It must have a stable and predictable cash flows that are adequate to meet interest and principle payment of the debt and provide adequate working capital.
- Typical **advantages** of the leveraged buy-out method include:
 - a) **Low capital or cash requirement** for the acquiring entity
 - b) **Synergy gains**, by expanding operations outside own industry or business,
 - c) **Efficiency gains** by eliminating the value-destroying effects of excessive diversification.
 - d) **Improved Leadership and Management:** Sometimes managers run companies in ways that improve their authority (control and compensation) at the expense of the companies' owners, shareholders, and long-term strength. Takeovers weed out or discipline such manage` Large interest and principal payments can force management to improve performance and operating efficiency. This "discipline, of debt" can force management to focus on certain initiatives such as divesting non-core businesses, downsizing, cost cutting or investing in technological upgrades that might otherwise be postponed or rejected outright.
 - e) **Leveraging:** as the debt ratio increases, the equity portion of the acquisition financing shrinks to a level at which a private equity firm can acquire a company by putting up anywhere from 20-40% of the total purchase price.
 - f) Acquiring Company **pay less taxes** because interest payments on debt are tax-deductible
- **Critics of Leveraged buy-outs:**
 - a) The major risk of the leveraged buyout is **bankruptcy** of the acquired company.

the company's cash flow and the sale of assets are insufficient to meet the interest payments arising from its high levels of debt, the LBO is likely to fail and the company may go bankrupt.

- b) The risk associated with a leveraged buyout is that of financial distress, and unforeseen events such as recession, litigation, or changes in the regulatory environment can lead to difficulties meeting scheduled interest payments, technical default (the violation of the terms of a debt covenant) or outright liquidation.
- c) Leveraged buyouts **can harm the long-term competitiveness** of firms involved
- d) Attempting an LBO can be particularly dangerous for companies that are **vulnerable to industry competition or volatility in the overall economy**.
- e) If the company does fail following an LBO, this can cause **significant problems for employees and suppliers**, as lenders are usually in a better position to collect their money.
- f) Another disadvantage is that paying high interest rates on LBO debt **can damage a company's credit rating**.
- g) Finally, it is possible that management may propose an LBO only **for short-term personal profit**.

Recent example: India has experienced a number of buyouts and leveraged buyouts . A successful example of LBO is the acquisition of Tetley brand, the biggest tea brand of Europe by TATA Tea of India at 271 million pounds. It was one of the biggest cross border acquisition by an Indian Company. Another recent example of a leveraged buyout is Tata Steel (India) acquiring Corus (United Kingdom) for \$ 11.3 billion .

QUESTION NO. 6

Write a short note on Financial Restructurings

(SFM Nov 2008)

- When a company cannot pay its cash obligations - for example, when it cannot meet its bond payments or its payments to other creditors (such as vendors) - it goes bankrupt. In this situation, a company can, of course, choose to simply shut down operations and walk away. On the other hand, it can also restructure and remain in business.
- **What does it Mean to Restructure?** The process can be thought of as two-fold: financial restructuring and organizational restructuring.
- Restructuring from a **financial viewpoint** involves renegotiating payment terms on debt obligations, issuing new debt, and restructuring payables to vendors.
- From an **organizational viewpoint**, a restructuring can involve a change in management, strategy and focus.
- Restructuring can take many forms. Some typical approaches to financial restructuring include:
 - a) Vertical Restructuring;
 - b) Horizontal Restructuring;
 - c) Corporate Restructuring
- **Financial restructuring refers to a kind of internal changes made by the management in Assets and Liabilities of a company with the consent of its various stakeholders.** This is a suitable mode of restructuring for corporate entities who have suffered from sizeable losses over a period of time. Consequent upon losses the share capital or net worth of such companies get substantially eroded. In fact, in some cases, the accumulated losses are even more than the share capital and thus leading to negative net worth, putting the firm on the verge of

liquidation. In order to revive such firms, financial restructuring is one of the technique to bring into health such firms who are having potential and promise for better financial performance in the years to come.

- To achieve this desired objective, such firms needs to re-start with a fresh balance sheet free from losses and fictitious assets and shows share capital at its real true worth. To nurse back such firms a plan of restructuring need to be formulated involving a number of legal formalities (which includes consent of court, and other stake-holders viz., creditors, lenders and shareholders etc.). An attempt is made to do Refinancing and rescue financing while Restructuring. Normally equity shareholders make maximum sacrifice by foregoing certain accrued benefits, followed by preference shareholders and debenture holders, lenders and creditors etc. The sacrifice may be in the form of waving a part of the sum payable to various liability holders. The foregone benefits may be in the form of new securities with lower coupon rates so as to reduce future liabilities. The sacrifice may also lead to the conversion of debt into equity. Sometime, creditors, apart from reducing their claim, may also agree to convert their dues into securities to avert pressure of payment. This measures will lead to better financial liquidity.
- The financial restructuring leads to significant changes in the financial obligations and capital structure of corporate firm, leading to a change in the financing pattern, ownership and control and payment of various financial changes.
- In nutshell it may be said that financial restructuring (also known as internal re-construction) is aimed at reducing the debt/payment burden of the corporate firm. This results into
 - a) Reduction/Waiver in the claims from various stakeholders;
 - b) Real worth of various properties/assets by revaluing them timely;
 - c) Utilizing profit accruing on account of appreciation of assets to write off accumulated losses and fictitious assets (such as preliminary expenses and cost of issue of shares and debentures) and creating provision for bad and doubtful debts.

QUESTION NO. 7

Write a short note on Cross-Border M&A?

- Cross-border M&A is a popular route for global growth and overseas expansion. Cross border M&A is also playing an important role in global M&A. This is especially true for developing countries such as India.
- Factors that motivate multinational companies to engage in cross-border M&A in Asia include the following:
 - a) Globalization of production and distribution of products and services.
 - b) Integration of global economies.
 - c) Expansion of trade and investment relationships on International level.
 - d) Many countries are reforming their economic and legal systems, and providing generous investment and tax incentives to attract foreign investment.
 - e) Privatization of state-owned enterprises and consolidation of the banking industry

LIST OF PAST YEARS EXAM QUESTIONS

SFM-Nov 2008

QUESTION NO. 1 What are the drawbacks of investments in Mutual Funds ?

QUESTION NO. 2 Write short notes on any four of the following :

- a) Financial restructuring
- b) Cross border leasing
- c) Embedded derivatives
- d) Arbitrage operations
- e) Rolling settlement.

SFM-Nov 2009

QUESTION NO. 1 What are the limitations of Credit Rating?

QUESTION NO. 2 What is the impact of GDRs on Indian Capital Market?

SFM-May 2010

QUESTION NO. 1 List and briefly explain the main functions of an investment bank.

QUESTION NO. 2 How is a stock market index calculated? Indicate any two important market indices.

QUESTION NO. 3 Write a short note on Debt Securitisation.

QUESTION NO. 4 Write a short note on Exchange Traded Funds (ETFs)

QUESTION NO. 5 Explain briefly, how financial policy is linked to Strategic Management.

SFM-Nov 2010

QUESTION NO. 1

- (i) What is the meaning of NBFC?
- (ii) What are the different categories of NBFCs?
- (iii) Explain briefly the regulation of NBFCs under RBI Act.

QUESTION NO. 2 Explain the concept 'Zero date of a Project' in project management.

QUESTION NO. 3 Give the meaning of 'Caps, Floors and Collars' options.

QUESTION NO. 4 Distinguish between Open-ended and Close-ended Schemes.

QUESTION NO. 5 Explain CAMEL model in credit rating.

SFM-May 2011

QUESTION NO. 1 Mention the functions of a stock exchange. (4 marks)

QUESTION NO. 2 Mention the various techniques used in economic analysis (4 marks)

QUESTION NO. 3 4x4=16 marks

- (a) Explain the significance of LIBOR in international financial transactions.
- (b) Discuss how the risk associated with securities is effected by Government policy.
- (c) What is the meaning of : (i) Interest rate parity and (ii) Purchasing power parity ?
- (d) What is the significance of an underlying in relation to a derivative instrument?
- (e) What are the steps for simulation analysis?

SFM-Nov 2011

QUESTION NO. 1 Write short note on any four of the following:

- a) Capital Rationing
- b) Embedded Derivatives
- c) Depository Participants
- d) Money Market Mutual Funds
- e) Leading and Lagging
- f) Takeover by Reverse Bid.

SFM-May 2012

QUESTION NO. 1 Write short note on any four of the following:

- a) Zero Coupon Bonds
- b) Interest Swap
- c) Inter-Bank Participation Certificate
- d) Meaning and Advantages of Netting
- e) Nostro, Vostro and Loro Accounts.

SFM-Nov 2012

QUESTION NO. 1 Write short note on any four of the following:

- a) Interface of Financial Policy and Strategic Management
- b) Commercial Paper
- c) American Depository Receipt
- d) Advantages of holding securities in 'Demat' form
- e) Synergy in the context of Mergers and Acquisitions

SFM-May 2013

QUESTION NO. 1 Write short notes on any four of the following:

- a) Credit Rating
- b) Asset Securitization
- c) Call Money
- d) Euro Convertible Bonds
- e) Financial Restructuring

SFM-Nov 2013

QUESTION NO. 1 Write short notes on any four of the following:

- a) Explain “Zero date of the Project” in Project Management.
- b) XYZ Bank, Amsterdam, wants to purchase ₹ 25 million against £ for funding their Nostro account and they have credited LORO account with Bank of London, London. Calculate the amount of £'s credited.
Ongoing inter-bank rates are per \$, ₹ 61.3625/3700 & per £, \$ 1.5260/70.
- c) What is an Exchange Traded Fund? What are its key features?
- d) What is an Equity Curve out? How does it differ from a Spin Off?
- e) What is Money Market? What are its features? What kind of inefficiencies it is suffering from?

SFM-May 2014

QUESTION NO. 1 Write short notes on any four of the following:

- a) Traditional and Walter approach to Dividend Policy.
- b) Factors affecting the value of an Option.
- c) Forward Rate Agreement.
- d) American Depository Receipts.
- e) Balancing Financial goals vis-a-vis sustainable growth.

SFM-Nov 2014

QUESTION NO. 1 Write short notes on any four of the following:

- a) What are the signals that indicate that is time for an investor to exit a mutual fund scheme?
- b) What is cross border leasing? State its objectives.
- c) Explain Takeover by reverse bid.
- d) What are the risks to which foreign exchange transactions are exposed?
- e) Explain the term "Insider Trading" and why Insider Trading is punishable?

SFM-May 2015

QUESTION NO. 1 Write short notes on any four of the following:

- a) Explain the meaning of the following relating to Swap transactions:
 - i. Plain Vanilla Swaps
 - ii. Basis Rate Swaps
 - iii. Asset Swaps
 - iv. Amortising Swaps
- b) Distinction between Open ended schemes and Closed ended schemes
- c) State any four assumptions of Black Scholes Model
- d) Give the meaning of Caps, Floors and Collar options with respect to Interest.
- e) Global depository receipts

SFM-Nov 2015

QUESTION NO. 1 Write short notes on any four of the following:

- a) Assumptions of Modigliani & Miller Hypothesis.
- b) Define the following Greeks with respect to options :
 - i. Delta
 - ii. Gamma
 - iii. Vega
 - iv. Rho
- c) Money Market Mutual Funds
- d) Instruments of international finance
- e) Forfeiting Vs Export factoring.

SFM- May 2016

QUESTION NO. 1 Write short notes on any four of the following:

- a) Distinguish between Investment Bank and Commercial Bank.
- b) Horizontal merger and Vertical merger.
- c) Distinguish between Money market and Capital market
- d) Operations in foreign exchange market are exposed to number of risks
- e) Interface of financial policy and strategic management