UNIT: IV- CAPITAL STRUCTURE THEORIES

SHORT ANSWERS:

Q.1. What is Capital Structure?

Capital structure refers to the kinds of securities and the proportionate amounts that make up capitalization. It is the mix of different sources of long-term sources such as equity shares, preference shares, debentures, long-term loans and retained earnings.

Definitions of Capital Structure:

1. **James C. Van Horne**, "The mix of a firm's permanent long-term financing represented by debt, preferred stock, and common stock equity".

2. **Prasana Chandra**, "The composition of a firm's financing consists of equity, preference, and debt".

3. **Gerstenberg,** "The make-up of a firm's capitalisation".

Q.2. Differentiate 'Capitalization' and 'Capital Structure'.

	Capitalization	Capital Structure
1	Capitalization is a quantitative aspect of financial planning.	Capital Structure is concerned with qualitative aspect of financial planning.
2	Capitalization refers to the total amount of securities issued by a company.	Capital Structure refers to the kinds of securities and proportionate amounts that make up capitalization.

Q.3. Differentiate between 'Financial Structure' and 'Capital Structure'.

a. Financial Structure:

Financial structure means the entire liabilities side of the balance sheet.

Nemmers and Grunewald, "Financial Structure refers to all the financial resources marshalled by the firm, short as well as long term, and all forms of debt as well as equity".

Thus, financial structure, generally is composed of a specified percentage of short-term debt, long-term debt and shareholders' funds.

b. Capital Structure:

Capital structure refers to the kinds of securities and the proportionate amounts that make up capitalization. It is the mix of different sources of long-term sources such as equity shares, preference shares, debentures, long-term loans and retained earnings.

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2. **Prasanna Chandra**, "The composition of a firm's financing consists of equity, preference, and debt".

3. **Gerstenberg,** "The make-up of a firm's capitalisation".

Q.4. What is Cost of Capital?

Cost of capital for a firm may be defined as the cost of obtaining funds, i.e., the average rate of return that the investors in a firm would expect for supplying funds to the firm.

Definitions of Cost of Capital:

1. **Hunt, William and Donaldson**, "Cost of capital may be defined as the rate that must be earned on the net proceeds to provide the cost elements of the burden at the time, they are due".

2. **James C. Van Horne** defines cost of capital as, "a cut-off rate for the allocation of capital to investments of projects. It is the rate of return on a project that will leave unchanged the market price of the stock."

3. **Hampton, John J**. defines cost of capital as, "the rate of return the firm requires from investment in order to increase the value of the firm in the market place".

Thus, we can say that cost of capital is that minimum rate of return which a firm, must and, is expected to earn on its investments so as to maintain the market value of its shares.

Q.5. Write a short note on significance of the cost of capital

SIGNIFICANCE OF THE COST OF CAPITAL

The concept of cost of capital is very important in the financial management. It plays a crucial role in both capital budgeting as well as decisions relating to planning of capital structure. Cost of capital concept can also be used as a basis for evaluating the performance of a firm and it further helps management in taking so many other financial decisions.

1. As an Acceptance Criterion in Capital budgeting
2. As a Determinant of Capital Mix in Capital Structure Decisions
3. As A Basis for Evaluating the Financial Performance
4. As a Basis for taking other Financial Decisions

Q.6. What is composite cost?

COMPOSITE COST OF CAPITAL

Composite cost is the combined cost of various sources of capital. It is the weighted average cost of capital. In case more than one form of capital is used in the business, it is the composite cost which should be considered for decision-making. In capital structure decisions, it is the weighted average cost of capital which should be given consideration.

Q.7. Define Leverage.

In financial management, the term 'leverage' is used to describe the firm's ability to use fixed cost assets or funds to increase the return to its owners; i.e. equity shareholders. **James Horne** has defined leverage as "the employment of an asset or sources of funds for which the firm has to pay a fixed cost or fixed return."

The fixed cost and fixed return remain constant irrespective of the change in volume of output or sales. Thus, the employment of an asset or source of funds for which the firm has to pay a fixed cost or return has a considerable influence on the earnings available for equity shareholders.

There are three types of leverages:
(i) Operating leverage (ii) Financial leverage (iii) Combined leverage.

Q.8. What is combined leverage?

COMPOSITE OR COMBINED LEVERAGE

Both financial and operating leverage magnify the revenue of the firm. Operating leverage affects the income which is the result of production. On the other hand, the financial leverage is the result of financial decisions.

The composite leverage focuses attention on the entire income of the concern. The risk factor should be properly assessed by the management before using the composite leverage. The high financial leverage may be offset against low operating leverage or vice-versa.

The degree of composite leverage can be calculated as follows:

$$\text{Degree of Composite Leverage (DCL)} = \frac{\text{Percentage Change in EPS}}{\text{Percentage Change in Sales}}$$

Or, Composite Leverage = Operating Leverage × Financial Leverage

Essay Questions:

Q.1. What is meant by Capital Structure? What are the factors determining the capital structure?

Capital structure refers to the kinds of securities and the proportionate amounts that make up capitalization. It is the mix of different sources of long-term sources such as equity shares, preference shares, debentures, long-term loans and retained earnings.

Definitions of Capital Structure:

1. **James C. Van Horne**, "The mix of a firm's permanent long-term financing represented by debt, preferred stock, and common stock equity".

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FACTORS DETERMINING CAPITAL STRUCTURE:

1. Trading on Equity: The word "equity" denotes the ownership of the company. Trading on equity means taking advantage of equity share capital to borrowed funds on reasonable basis. It refers to additional profits that equity shareholders earn because of issuance of debentures and preference shares.

2. Degree of control: In a company, it is the directors who are elected representatives of equity shareholders. If the company's management policies are such that they want to retain their voting rights in their hands, the capital structure consists of debenture holders and loans rather than equity shares.

3. Flexibility of financial plan: In an enterprise, the capital structure should be such that there is both contractions as well as relaxation in plans. Debentures and loans can be refunded back as the time requires. While equity capital cannot be refunded at any point which provides rigidity to plans.

4. Choice of investors: A capital structure should give enough choice to all kind of investors to invest. Bold and adventurous investors generally go for equity shares and loans and debentures are generally raised keeping into mind conscious investors.

5. Capital market condition: In the lifetime of the company, the market price of the shares has got an important influence. During the depression period, the company's capital structure generally consists of debentures and loans. While in period of booms and inflation, the company's capital should consist of share capital generally equity shares.

6. Period of financing: When company wants to raise finance for short period, it goes for loans from banks and other institutions, while for long period it goes for issue of shares and debentures.

7. Cost of financing: In a capital structure, the company has to look to the factor of cost when securities are raised. It is seen that debentures at the time of profit earning of company prove to be a cheaper source of finance as compared to equity shares where equity shareholders demand an extra share in profits.

8. Stability of sales: When sales are high, thereby the profits are high and company is in better position to meet such fixed commitments like interest on debentures and be dividends on preference shares. If company is having unstable sales, then the company is not in position to meet fixed obligations. So, equity capital proves to be safe in such cases.

9. Sizes of a company: Small size business firms capital structure generally consists of loans from banks and retained profits. While on the other hand, big companies having goodwill, stability and an established profit can easily go for issuance of shares and debentures as well as loans and borrowings from financial institutions.

Q.2. Explain the Traditional Approach and Modigliani and Miller Approach of Capital Structure.

THEORIES OF CAPITAL STRUCTURE

Different kinds of theories have been propounded by different authors to explain the relationship between capital structure, cost of capital and value of the firm. The main contributors to the theories are Durand, Ezra, Solomon, Modigliani and Miller.
The important theories are:
1. Net Income Approach.
2. Net Operating Income Approach.
3. The Traditional Approach
4. Modigliani and Miller Approach.

The Traditional Approach:

The traditional approach, also known as Intermediate approach, is a compromise between the two extremes of net income approach and net operating income approach.

According to this theory, the value of the firm can be increased initially or the cost of capital can be decreased by using more debt as the debt is a cheaper source of funds than equity. Thus, optimum capital structure can be reached by a proper debt-equity mix. Beyond a particular point, the cost of equity increases because increased debt increases the financial risk of the equity shareholders. The advantage of cheaper debt at this point of capital structure is offset by increased cost of equity.

After this there comes a stage, when the increased cost of equity cannot be offset by the advantage of low-cost debt. Thus, overall cost of capital, according to this theory, decreases up to a certain point, remains more or less unchanged for moderate increase in debt thereafter, and increases or rises beyond a certain point. Even the cost of debt may increase at this stage due to increased financial risk.

Modigliani and Miller Approach:

Modigliani and Miller approach states that the financing decision of a firm does not affect the market value of a firm in a perfect capital market. In other words, MM approach maintains that the average cost of capital does not change with change in the debt weighted equity mix or capital structures of the firm.

Modigliani and Miller approach is based on the following important assumptions:

- There is a perfect capital market.
- There are no retained earnings.
- There are no corporate taxes.
- The investors act rationally.
- The dividend pay-out ratio is 100%.
- The business consists of the same level of business risk.

Value of the firm can be calculated with the help of the following formula:

$$\frac{EBIT}{K_0}(1-t)$$

Where

EBIT = Earnings before interest and tax

K_o = Overall cost of capital

t = Tax rate

Q.3. What is cost of capital? Explain the significance of cost of capital.

Cost of capital for a firm may be defined as the cost of obtaining funds, i.e., the average rate of return that the investors in a firm would expect for supplying funds to the firm.

Definitions of Cost of Capital:

1. **Hunt, William and Donaldson**, "Cost of capital may be defined as the rate that must be earned on the net proceeds to provide the cost elements of the burden at the time, they are due".

2. **James C. Van Horne** defines cost of capital as, "a cut-off rate for the allocation of capital to investments of projects. It is the rate of return on a project that will leave unchanged the market price of the stock."

3. **Solomon Ezra,** "Cost of capital is the minimum required rate of earnings or the cut-off rate of capital expenditures."

4. **Hampton, John J**. defines cost of capital as, "the rate of return the firm requires from investment in order to increase the value of the firm in the market place".

Thus, we can say that cost of capital is that minimum rate of return which a firm, must and, is expected to earn on its investments so as to maintain the market value of its shares.

SIGNIFICANCE OF THE COST OF CAPITAL

1. As an Acceptance Criterion in Capital budgeting: Capital budgeting decisions can be made by considering the cost of capital. The present value of expected returns is calculated by discounting the expected cash inflows at cut-off rate (which is the cost of capital). Hence, the concept of cost of capital is very useful in capital budgeting decision.

2. As a Determinant of Capital Mix in Capital Structure Decisions: While designing an optimal capital structure, the management has to keep in mind the objective of maximising the value of the firm and minimising the cost of capital. Measurement of cost of capital from various sources is very essential in planning the capital structure of any firm.

3. As A Basis for Evaluating the Financial Performance: The actual profitability of the project is compared to the projected overall cost of capital and the actual cost of capital of funds raised to finance the project If the actual profitability of the project is more than the projected and the actual cost of capital, the performance may be said to be satisfactory.

4. As a Basis for taking other Financial Decisions: The cost of capital is also used in making other financial decisions such as dividend policy, capitalisation of profits, making the rights issue and working capital.

Q.4. Distinguish between Operating leverage and Financial Leverage

In financial management, the term 'leverage' is used to describe the firm's ability to use fixed cost assets or funds to increase the return to its owners; i.e. equity shareholders.

James Horne has defined leverage as “the employment of an asset or sources of funds for which the firm has to pay a fixed cost or fixed return." There are three types of leverages:

(i) Operating leverage (ii) Financial leverage (iii) Combined leverage.

	Operating Leverage	**Financial Leverage**
1	Operating Leverage is associated with investment activities of the company.	Financial Leverage is associated with the financing activities of the company.
2.	Operating Leverage consists of fixed operating expenses of the company.	Financial Leverage consists of operating profit of the company.
3.	It represents the ability to use fixed operating cost.	It represents the relationship between EBIT and EPS.
4.	Operating Leverage can be calculated by OL = C/OP	Financial Leverage can be calculated by FL=OP/PBT
5.	A percentage change in the profits resulting from a percentage change in the sales is called as degree of operating leverage.	A percentage change in taxable profit is the result of percentage change in EBIT.
6.	Trading on equity is not possible while the company is operating leverage.	Trading on equity is possible only when the company uses financial leverage.
7.	Operating Leverage depends upon fixed cost and variable cost.	Financial Leverage depends upon the operating profits.
8.	Tax rate and interest rate will not affect the operating leverage.	Financial leverage will change due to tax rate and interest rate.