Quiz Bomb

Indicate whether the following statements are 'True' or 'False'. Support your answer with reason:

- 1. Public finance is the study of money management of individual.
 - False. Public finance is the study of management of money by government. On the other hand, money management by individual is called personal finance.
- 2. Business finance is the study of money management of all forms of business organizations.
 - True. Money management by all forms of business organization (sole, partnership and corporation) is called business finance.
- 3. The primary goal of financial management decisions is to maximize the price of the firm's stock.
 - True. The primary goal of the financial management is to maximize the stock price because this objective considers all stakeholders. If the price of stock is maximized, all parties related with companies will be benefited.
- 4. Finance is related with the acquisition, allocation, management and efficient utilization of firm's financial resources.

 True. Financial management is related with acquisition and utilization of money by the firm which includes allocation and management of money.
- 5. Firms always are short of funds. Therefore, raising funds is the most important function of the financial manager. False. Firms may have short of funds, in this case firm must raise the funds. On the other hand, if firm have surplus funds, then firm should invest these surplus funds. Therefore, the raising of funds is not only the functions of the financial manager i.e. utilization of funds is also the another main function of the financial manager.
- 6. The primary emphasis of the financial manager is on profit maximization.
 - False. Primary emphasis of financial manager is to maximize stock price because this goal considers all parties related with the firm.
- 7. Executive finance functions are handled by the persons with the basic knowledge of accounting.
 - False. Executive finance functions are carried out by Financial manager (chief financial officer, treasurer, controller, and respective department heads). On the other hand, accounting activities are carried out by controller and day to day functions of accounting are carried out by lower level staff of respective departments.
- The board of directors is responsible for managing day to day operation of business and carrying out the policies established by CEO.
 - False. Financial manager (chief financial officer, treasurer, controller, and respective department heads) are responsible for the policy making functions. On the other hand, day to day functions are carried out by lower level staff of respective departments.
- 9. Risk management in the most crucial responsibility of financial manager.
 - True. Financial manager should manage risk for his/her firm by purchasing insurance policy and by hedging tools.
- 10. The objective of profit maximization considers the time value of money.
 - False. Profit maximization does not consider the time value of money and two equal profit projects provides the equal weight.
- 11. A high earnings per share represents the higher stock price of the corporation.
 - True. Stock price is the product of price earnings ratio and earnings per share. Stock price depends on the earning per share, thus higher the earnings per share higher will be the stock price and vice versa
- 12. Investment decision is also known as capital structure decision.
 - False. Investment decision is the decision related with the purchase of fixed asset. On the other hand, capital structure decision is the selection of optimal mix of long term sources of financing.
- 13. Investing in long term assets and projects is related to the firm's financing decision.
 - False. Investment in long term assets (i.e. fixed assets) and projects is investment decision. To make investment decision, financial manager must analyze the risk and return of possible long term assets and projects. To selection of long term assets and projects, the financial manager use various capital budgeting techniques. The popular method is net present value method. If the NPV of the project is positive, the project should be accepted and vice versa. On the other hand, financing decision is the selection of mix of all long term sources of financing. This mix must be optimum and that should maximize the value of the firm.
- 14. The treasurer oversees the accounting activities of the firm.
 - False. Treasurer oversees the financing activities and controller oversees the accounting activities.
- 15. For a firm wealth maximization goal is preferable to profit maximization goal.
 - True. Wealth maximization goal is preferable than profit maximization because wealth maximization goal is clear, consider risk element and time value of money.
- 16. Financial manager places primary emphasis on cash flows.
 - True. Value of the firm is derived from the cash flows so financial manager must emphasis on cash flows. Bigger the cash flows bigger the value of the firm and vice versa.
- 17. Financial management is concerned with the maintenance and creation of wealth.

True. Goal of the financial management or financial manager is to maximize the wealth of the firm and maintain in consistent level

- 18. Shareholder wealth is measured by the market value of the firm's common stock.
 - True. Shareholder wealth is measured by the market value of the firm's common stock. If the market value of the firm's share is increased, then the value of the firm is increased.
- 19. Financial manager has close relation with financial market.
 - True. Performance of the financial manager shown in the market by increasing in the stock price. So, there is close relationship with financial market.
- 20. Day to day functions of the finance department are carried out by financial manager.
 - False. Financial manager (chief financial officer, treasurer, controller, and respective department heads) are responsible for the policy making functions or managerial functions or executive functions. On the other hand, day to day functions are carried out by lower level staff of respective departments.

Cost of capital

- 1. The cost of common stock and weighted average cost of capital are not affected by the firm's tax rate.
 - **False.** Weighted average cost of capital is the weighted average after tax cost of debt and common stock. After tax debt is always calculated on after tax basis because interest on debt is tax deductible to the firm which decreases the after tax cost of debt. On the other hand, dividend in common stock is paid from after tax income. So cost of common stock is not affected by taxes. If the after tax cost of debt is lower than the weighted average cost of capital will be lower due to lower after tax cost of debt. Therefore, cost of common is not affected by tax rate and weighted average cost of capital is affected by tax rate.
- 2. Cost of internal equity is equal to the external equity if there is no flotation costs.
 - **True.** Cost of internal equity or cost of retained earnings is the cost of using retained earnings and it is the opportunity cost. So there is no flotation cost because it is internally raised. On the other hand, if the fund is raised from the market, then the firm must pay flotation cost. If there is flotation cost then cost of external equity is always greater than cost of internal equity. But if the there is no flotation cost then cost of internal equity and external equity will be the same. In practice, without flotation cost, external funds collection is impossible.
- 3. Internal equity capital is cheaper than external equity only because it saves investors' tax.
 - **False.** Cost of internal equity capital (cost of retained earnings) is cheaper than external equity because of flotation cost. If the firm raise fund from the financial market then the firm must pay the flotation cost and that decreases the net proceeds and cost of external equity will increase.
- 4. WACC is the minimum rate of return required from an investment project.
 - **True.** The weighted average cost of capital is the minimum rate of return that the company should earn. If the project offers a rate of return greater than weighted average cost of capital, then the project should be accepted and vice versa. The weighted average cost of capital is the yardstick of the evaluating the project. Therefore, it is an appropriate acceptance criterion for evaluating investment proposal.
- 5. The cost of capital is the minimum required rate of return that must be earned from an investment.
 - **True.** The cost of capital is the minimum rate of return that the company should earn. If the project offers a rate of return greater than weighted average cost of capital, then the project should be accepted and vice versa. The weighted average cost of capital is the yardstick of the evaluating the project. Therefore, it is an appropriate acceptance criterion for evaluating investment proposal.
- 6. Cost of internal equity involves the opportunity cost principle.
 - **True.** The reason we must assign a cost to internal equity (retained earnings) involves the *opportunity cost principle*. The firm's after tax earnings belong to its stockholders. Stockholders could have received the earnings as dividends and invested this money in other stocks, in bonds, in real estate, or in anything else. Thus, the firm should earn on its internal equity (retained earnings) at least as much as the stockholders themselves could earn on alternative investments of comparable risk.
- 7. If company spends the flotation cost on the issue of common stock, then the cost of common stock will be increased.
 - **True.** The firm must incur the flotation costs when selling new common stock. Due to the flotation cost, the full market value of the stocks cannot be used for investment; only the amount left after paying flotation cost is available. The expenses of flotation cost need adjustment in the calculation of cost of equity. If the corporation needs to spend flotation cost on the issue of the common stock, the cost of common stock will be increased. The increasing in the cost of common stock results the increasing in the WACC.
- 8. If interest rates in the economy rise, the weighted average cost of capital will increase.
 - **True.** If interest rates in the economy rise, the cost of debt capital increases because firms will have to pay bondholders a higher interest rate. Higher interest rates also increase the cost of common and preferred equity capital.
- 9. Cost of preferred stock is usually more than the cost of debt.

True. No tax adjustments are made when calculating cost of preferred stock because preferred dividends, unlike interest expense on debt, are not tax deductible; hence there are no tax savings. The flotation cost of issuing preferred stock is also higher than debt.

10. If the corporate tax rate is lowered, then the after tax cost of debt and WACC will increase.

True. Tax rates are used in the calculation of the cost of debt, which is one of the component costs used to develop the WACC. If corporate tax rate is lower, then the after tax cost of debt will be higher because of less tax advantage and WACC will be higher. For example, assume before tax cost of debt (kd) = 10%, weight of debt (Wd) = 40% and cost of equity (ks) = 16% and weight of equity is 60%. The tax rate is 40%. The WACC is 12%. WACC = Wd × kd (1 - T) + Ws × ks = 0.40×10 (1- 0.4) + $0.60 \times 16\%$ = 12%. Assume tax rate lowered to 30%. Then WACC is 12.4%. WACC = Wd × kd (1 - T) + Ws × ks = 0.40×10 (1- 0.3) + $0.60 \times 16\%$ = 12.4%.

11. The use of retained earnings have no any costs.

False. The use of retained earnings have opportunity costs. The reason we must assign a cost to internal equity (retained earnings) involves the *opportunity cost principle*. The firm's after tax earnings belong to its stockholders. Stockholders could have received the earnings as dividends and invested this money in other stocks, in bonds, in real estate, or in anything else. Thus, the firm should earn on its internal equity (retained earnings) at least as much as the stockholders themselves could earn on alternative investments of comparable risk.

12. The dividend paid to the preference shareholders is a tax-deductible expense.

False. No tax adjustments are made when calculating cost of preferred stock because preferred dividends, unlike interest expense on debt, are not tax deductible; hence there are no tax savings. Therefore, the dividend paid to the preference shareholders is a tax deductible expense.

13. Funds acquired by the firm through preferred stock have a cost to the firm equal to the preferred dividend by the net issuing price, the price the firm receives on preferred after deducting flotation costs.

True. The component cost of preferred stock, k_P , is the preferred dividend, D_P , divided by the net issuing price (P_n) receives after deducting flotation costs:

$$k_P = \frac{D_P}{P_P}$$

For example, assume that Necon Air has preferred stock that pays a Rs 11 dividend per share and sells for Rs 100 per share. If Necon issued new shares of preferred it would incur an flotation cost of 2.5 percent. Therefore, Necon's cost of preferred stock is 11.28 percent.

$$k_P = \frac{Rs11}{Rs \ 97.5} = 0.1128 \text{ or } 11.28\%$$

Where net issuing price = Rs 100 - 2.5% of Rs 100 = Rs 97.5

14. The calculation for a firm's WACC includes an adjustment to the cost of debt for taxes, since interest is deductible, and includes the cost of all current liabilities.

False. Weighted average cost of capital is the weighted average after tax cost of debt and common stock. After tax debt is always calculated on after tax basis because interest on debt is tax deductible to the firm which decreases the after tax cost of debt. And weighted average cost of capital is the average cost of long term sources of financing (e.g. debt, preferred stock and common equity) thus, cost of all current liabilities is excluded.

15. The cost of capital used in capital budgeting should reflect the average cost of the various sources of long-term funds a firm uses to acquire assets.

True. The cost of capital is the minimum rate of return that the firm should earn which is the average cost of various long term sources of financing. If the project offers a rate of return greater than cost of capital, then the project should be accepted and vice versa. The weighted average cost of capital is the yardstick of the evaluating the project. Therefore, it is an appropriate acceptance criterion for evaluating investment proposal.

16. The before-tax cost of debt, which is lower than the after-tax cost, is used as the component cost of debt for purposes of developing the firm's WACC.

False. Tax rates are used in the calculation of the cost of debt, which is one of the component costs used to develop the WACC. Interest is tax deductible sources and after tax cost of debt is used to calculate the WACC and after tax cost of debt is always lower than before tax cost of debt in case of positive tax rate.

17. For capital budgeting and cost of capital purposes, the firm should always consider retained earnings as the first source of capital--i.e., use these funds first--because retained earnings have no cost to the firm.

False. The use of retained earnings have opportunity costs. The reason we must assign a cost to internal equity (retained earnings) involves the *opportunity cost principle*. The firm's after tax earnings belong to its stockholders. Stockholders could have received the earnings as dividends and invested this money in other stocks, in bonds, in real estate, or in anything else. Thus, the firm should earn on its internal equity (retained earnings) at least as much as the stockholders themselves could earn on alternative investments of comparable risk.

18. The cost of equity raised by retaining earnings can be less than, equal to, or greater than the cost of external equity raised by selling new issues of common stock, depending on tax rates, flotation costs, the attitude of investors, and other factors.

False. Cost of internal equity capital (cost of retained earnings) is cheaper than external equity because of flotation cost. If the firm raise fund from the financial market then the firm must pay the flotation cost and that decreases the net proceeds and cost of external equity will increase. If there is no flotation cost, then the cost of retained earnings is equal with cost of external equity. Thus cost of external equity may be greater than or equal to cost of retained earnings and cost of external equity will not be lower than cost of retained earnings.

- 19. The firm's cost of external equity raised by issuing new stock is the same as the required rate of return on the firm's outstanding common stock.
 - **False.** The required rate of return on the firm's outstanding common stock is the cost of common stock or cost of retained earnings. If company use external equity then the flotation cost must be paid to raise the funds which lower the net proceeds and increases the cost. Therefore the cost of issuing new stock is higher than the required rate of return of the firm's outstanding common stock.
- If a firm's marginal tax rate is increased, this would, other things held constant, lower the cost of debt used to calculate its WACC.
 - **True.** Tax rates are used in the calculation of the cost of debt, which is one of the component costs used to develop the WACC. If corporate tax rate is increased, then the after tax cost of debt will be lower because of high tax advantage and WACC will be lower. For example, assume before tax cost of debt (kd) = 10%, weight of debt (Wd) = 40% and cost of equity (ks) = 16% and weight of equity is 60%. The tax rate is 40%. The WACC is 12%. WACC = Wd × kd (1 T) + Ws × ks = 0.40×10 (1- 0.4) + $0.60 \times 16\%$ = 12%. Assume tax rate increased to 50%. Then WACC is 12.4%. WACC = Wd × kd (1 T) + Ws × ks = 0.40×10 (1- 0.5) + $0.60 \times 16\%$ = 11.6%.
- 21. Suppose the debt ratio (D/TA) is 50%, the interest rate on new debt is 8%, the current cost of equity is 16%, and the tax rate is 40%. An increase in the debt ratio to 60% would have to decrease the weighted average cost of capital (WACC).

True. Higher the debt ratio, lower will be the weighted average cost of capital other things being the same.

Given: Weight of debt (Wd) = 50%, Interest rate (kd) = 8%; Cost of equity (ks) = 16%, weight of equity (Ws) = 60%; Tax rate (T) = 40%, Weighted average cost of capital (WACC) = ?

The WACC is 10.4%. WACC = $W_d \times k_d (1 - T) + W_S \times k_S = 0.50 \times 8 (1 - 0.4) + 0.50 \times 16\% = 10.4\%$.

If debt ratio increased to ($W_d = 60\%$) and weight of equity (W_s) = 40%. Then WACC is 12.4%. WACC = $W_d \times k_d$ (1 – T) + $W_s \times k_s = 0.60 \times 8$ (1 - 0.4) + 0.40 × 16% = 9.28%.

22. The lower the firm's tax rate, the lower will be its after-tax cost of debt and also its WACC, other things held constant. **False.** Tax rates are used in the calculation of the cost of debt, which is one of the component costs used to develop the WACC. If corporate tax rate is lower, then the after tax cost of debt will be higher because of less tax advantage and WACC will be higher. For example, assume before tax cost of debt (kd) = 10%, weight of debt (Wd) = 40% and cost of equity (ks) = 16% and weight of equity is 60%. The tax rate is 40%. The WACC is 12%. WACC = Wd × kd (1 - T) + Ws × ks = 0.40 × 10 (1- 0.4) + 0.60 × 16% = 12%. Assume tax rate lowered to 30%. Then WACC is 12.4%. WACC = Wd × kd (1 -

Thus, if the tax rate is lower than the after tax cost of debt and WACC is higher.

Capital Budgeting

- The net present value profile is a graph showing how a project's NPV changes as the IRR changes.
 False. NPV profile is a graph which shows the how a project's NPV changes with change in cost of capital.
- 2. Both the IRR rule and the accounting rate of return rule take into consideration the time value of money.
 - **False.** IRR rule consider the time value of money and accounting rate of return does not consider the time value of money.
- 3. The NPV of a project will equal zero whenever the payback period of a project equals the required rate of return.
 - **False.** NPV of a project will equal zero if the required rate of return of the project must be equal with its internal rate of return.
- 4. NPV is a better capital-budgeting technique than IRR.

T) + Ws × ks = $0.40 \times 10 (1-0.3) + 0.60 \times 16\% = 12.4\%$.

- **True.** NPV is a better capital budgeting technique because it measures the firm's value in rupees and there will be only one decision. But in case of IRR, there may be multiple IRR.
- 5. The NPV assumes cash flows are reinvested at the firm's cost of capital.
 - True. NPV method assumes cash flows from the project are reinvested at firm's cost of capital.
- 6. Projects with nonnormal cash flows sometimes have multiple MIRRs.
 - **False.** If there is nononrmal cash flows there will be multiples IRR but in case of
 - MIRR there is no multiple MIRR there is only MIRR in case of nonnormal cash flows.
- 7. The IRR of a project whose cash flows accrue relatively rapidly is more sensitive to changes in the discount rate than is the IRR of a project whose cash flows come in more slowly.
 - False. Because the IRR is independent of the discount rate.
- 8. There are many conditions under which a project can have more than one IRR.
 - One such condition is where an otherwise normal project has a negative cash flow at the end of the life.
 - True. The situation identified is that of a project with nonnormal cash flows, which has multiple IRRs.

- 9. The phenomenon called multiple internal rates of return arises when two or more mutually exclusive projects that have different lives are being compared.
 - False. Multiple IRRs occur with projects with nonnormal cash flows, not with mutually exclusive projects with different lives.
- 10. The modified IRR method has wide appeal to professors, but most business executives prefer the NPV method to either the regular or modified IRR.
 - **Fasle.** Business executives tend to prefer the IRR because it gives a measure of the project's safety margin.
- 11. If a project has an NPV greater than zero, then taking on the project will increase the value of the firm's stock.
 - **True.** If the NPV is greater than zero, the value of firm will increase by NPV amount.
- 12. Underlying the IRR is the assumption that cash flows can be reinvested at the firm's cost of capital.
 - Fasle. The IRR assumes reinvestment at the IRR.
- 13. The discounted payback period always leads to the same accept /reject decisions as the NPV method.
 - **False.** Since the discounted payback ignores cash flows beyond the payback period, it could lead to rejections of projects with high late cash flows and hence NPV >0.
- 14. Under mutually exclusive projects we can choose both projects.
 - **False.** If two projects are mutually exclusive (that is, only one can be accepted), the one with the higher NPV should be chosen, assuming that the NPV is positive. If both projects have negative NPVs, neither should be chosen.
- 15. Under independent projects can be accepted or rejected individually.
 - **True.** Independent projects can be selected independently because there is no effect by selecting one project to others. All projects having positive NPV are accepted assuming unlimited budget.
- 16. You are thinking of buying a motorbike. You are considering (i) Hero Honda (ii)
 - CBZ (iii) Yamaha and (iv) Pulsar. This is an independent case.
 - **False.** We are choosing one out of three so this is mutually exclusive case.
- 17. While calculating relevant cash flows for capital budgeting decision, additional working capital represents cash inflow at the end of project period.
 - **True.** If working capital is additional in zero year than it will be release at the end of project period and it will be cash inflow at the end of the project.
- 18. Project that adds the capacity to the existing one to increase the output or increase the distribution channel is termed as replacement project.
 - **False.** It is expansion project. In expansion project, a company may add capacity to its existing product lines to expand existing operations. For example, a fertilizer company may increase its plant capacity to manufacture more urea.
- 19. As an expansion project, a company is considering selling a truck used for delivery of its products and purchasing two new vans for same delivery purpose.
 - False. This is replacement project. Companies invest in two new vans by replacing truck, so this replacement project.
- 20. If cost of capital is more than the crossover rate, there is no conflict in decisions given by net present value and internal rate of return techniques.
 - **True.** If the cost of capital is more than the crossover rate there will be no conflict because decision will be same accept or reject. Below crossover rate there will be conflict.
- 21. Other things held constant, a decrease in cost of capital (discount rate) will cause an increase in project's internal rate of return.
 - **False.** The computation of IRR is independent of the project's cost of capital.
- 22. In any case NPV and IRR do not give conflicting results.
 - **False.** Three basic conditions can lead to conflict between NPV and IRR: (i) Scale of investment: Costs of projects differ; (ii) Cash flow pattern: timing of cash flows differs; (iii) Project life: Projects have unequal useful lives.
- 23. Depreciation is non-cash expense. Therefore, it is ignored while estimating the cash flow of a project.
 - **False.** Every capital budgeting decision should consider this depreciation i.e., reduction in tax liability as a result of depreciation. The depreciation is added back to the figure of profit after taxes to arrive at the cash inflows from the project. Add back of depreciation increases the cash flows and increases the value of the firm.
- 24. There may be conflict in decisions given by Net Present Value (NPV) and Internal Rate of Return (IRR) while selecting independent projects.
 - **False.** Both the NPV and IRR methods lead to the same accept reject decisions for independent projects. Thus, there will not be conflict between IRR method and NPV method when choosing independent projects.
- 25. If a firm's projects differ in risk, then one way of handling this problem is to evaluate each project with the appropriate risk-adjusted discount rate.
 - **True.** Most firms use risk adjusted discount rates to incorporate differential project risk in the capital budgeting process. The risk adjusted discount rate is the discount rate that applies to a particular risky stream of income; the riskier the project's income stream, the higher the discount rate.
- 26. If debt is to be used to finance a project, then when cash flows for a project are estimated, interest payments should be included in the analysis.

False. Capital budgeting techniques (NPV and IRR) include the cost of funds by using a discount rate that reflects the required return. If we were to include interest expense in the cash flow estimate, we would be, in essence, double charging the project for financing. Therefore, interest payments should not be included in the capital budgeting analysis.

Capital structure and leverage

1. Total leverage is the product of operating leverage and financial leverage.

True. It is the product of DOL and DFL i.e. DTL = DOL \times DFL

2. The optimal capital structure can be defined as the mix of financing sources that minimize the company's debt cost.

False. The optimal capital structure is the combination of debt, preferred stock, and common equity that minimizes the WACC. At the capital structure where the WACC is minimized, the value of firm's securities (or value of the firm) is maximized. As a result, the minimum cost of capital structure is called optimal capital structure.

3. A firm with high interest cost has high business risk.

False: High interest cost has financial cost which causes the financial risk to the firm.

4. Other things being constant, increase in variable costs increases are level of breakeven point.

True: Increase in variable costs increases the break-even point because increase in variable cost increases the operating costs, so break even quantity also increases to cover the increased costs.

5. If a firm's degree of operating leverage is 2, it means that 10 percent increase in sales leads to 20 percent increase in net income.

False: If DOL is 2, it means that 10% increase in sales leads to 20 % increase in earnings before and taxes. i.e. DOL = % change in EBIT/% change in sales Or, 2 = % change in EBIT / 10% OR, % change in EBIT = 20%.

6. Financial leverage measures the extent to which fixed costs are used in a firm's operation.

False. Financial leverage measures the extent to which financial fixed costs used in the firm.

7. Financial breakeven point includes coverage of firm's interest on debt security, preference dividend after tax, and bonus to the employees.

False. Financial BEP includes the fixed financial costs i.e. interest and preference dividend.

8. Breakeven sales is that level of sales where revenues are greater than variable cost.

False. Breakeven sales is the level of sales where contribution margin and fixed costs are equal.

9. Other things being constant, increase in fixed costs increases breakeven point.

True. Increase in the fixed cost increases the breakeven point because total cost will increase and to cover the total cost the firm must also produce and sold more units to meet the no loss and no loss point.

10. The sensitivity of a firm to a change in sales as measured by degree of operating leverage is constant at each level of output (or sales).

False. Degree of operating leverage measure a small change in sales will result large change in operating profit i.e. earnings before interest and taxes and it will be different according to level of output.

11. A firm's cash breakeven point is always at higher level than its operating breakeven level.

False. Cash breakeven point is always lower (because less amount to recover) than its operating breakeven level if there is depreciation in total fixed cost. In case of no depreciation, both points will be same.

12. A high degree of operating leverage indicates that a small change in earnings before tax results in large change in return on equity.

False. High degree of operating leverage indicates that a small change in sales will result large change in operating profit i.e. earnings before interest and taxes.

13. Capital structure is optimal when the value of the firm is maximum.

True. The optimal capital structure is the combination of debt, preferred stock, and common equity that minimizes the WACC. At the capital structure where the WACC is minimized, the value of firm's securities (or value of the firm) is maximized. As a result, the minimum cost of capital structure is called optimal capital structure.

14. The capital structure that maximizes the stock price is also the one that minimizes the weighted average cost of capital.

True. The optimal capital structure is the combination of debt, preferred stock, and common equity that minimizes the WACC. At the capital structure where the WACC is minimized, the value of firm's securities (or value of the firm) is maximized. As a result, the minimum cost of capital structure is called optimal capital structure.

15. Capital structure is concerned with the amount of investment a firm wishes to make.

False. Capital structure refers to the sources of long term funds. Capital structure represents the relationship of different kinds of long-term sources of capital and their amount. Normally, a firm raises long-term capital through the issue of common shares, preference shares, and debts.

16. When the variable costs are 60% of sales rupees, the contribution ratio is also 60%.

False. The contribution ratio is the complement of the variable costs expressed as a percent of sales dollars. In this case, the contribution margin is 40% (100% - 60% = 40%).

17. If the contribution margin is Rs.49,000 and the total sales are Rs.166,000, total variable costs must equal Rs.117,000.

True. Contribution margin is the total revenues minus variable costs. In this case Rs.166,000 - Rs.117,000 = Rs.49,000.

18. If the variable costs of a product equal Rs.75 and the selling price is Rs.100, then the contribution margin for the product is Rs. 25

True. The contribution margin represents the amount of sales price per unit that is available for use to pay fixed costs. It is computed by subtracting the variable cost per unit from the per-unit sales price. i.e. contribution margin = Rs 100 - Rs 75 = Rs 25

19. If the variable costs to make and sell the unit are Rs.36 and the contribution margin ratio is 25%, then the selling price of a unit is Rs. 54.

False. If the variable costs are Rs.36 and the contribution margin ratio is 25%, then the variable cost represent 75% of the selling price. The variable costs of Rs.36/.75 = Rs.48. The contribution margin is Rs.12 (Rs.48 - Rs.36).

20. Financial risk can be reduced by replacing common equity with preferred stock.

Fasle. Financial risk is arises due to use of debt and preferred stock in capital structure of the firm. If debt or preferred stock or both increases then the financial risk is increases and vice versa. But in this case, the amount of preferred stock is decreases with the replacement of common equity, thus financial risk will decreases.

21. The sensitivity of a firm to a change in sales as measured by degree of operating leverage is constant at each level of output (or sales).

False. Degree of operating leverage measure a small change in sales will result large change in operating profit i.e. earnings before interest and taxes and it will be different according to level of output.

22. A high degree of operating leverage, other things held constant, implies that a relatively small change on sales results in a large change in ROE.

False. High degree of operating leverage indicates that a small change in sales will result large change in operating profit i.e. earnings before interest and taxes.

23. A firm's cash breakeven point is always at higher level than its operating breakeven level.

False. Cash breakeven point is always lower (because less amount to recover) than its operating breakeven level if there is depreciation in total fixed cost. In case of no depreciation, both points will be same.

24. At operating breakeven point, a firm's contribution margin is equal to fixed cost.

True. Operating breakeven point is that point at which EBIT will be zero. For EBIT equals to zero, the contribution margin must be equal with fixed cost.

25. Operating leverage increases as the output level moves away from breakeven point.

True. As volume moves away from breakeven, profit or loss increases faster with more operating leverage. More operating leverage leads to larger variations in EBIT, or business risk. Thus, when a firm is operating above breakeven, more operating leverage implies higher operating profit

26. The extent to which funds with fixed charges are used in a firm's capital structure is called operating leverage.

False. Operating leverage is the extent to which fixed operating costs are used in a firm's operations. If a high percentage of the firm's total operating costs are fixed, and hence do not decline when demand falls, then the firm is said to have high operating leverage. Other things held constant, the greater a firm's operating leverage, the greater its business risk.

27. A firm that has to pay high interest has greater financial risk.

True. High interest cost has financial cost which causes the financial risk to the firm.

28. The DOL of 3.5 indicates that if sales increases by 1%, the operating profit will decrease by 3.5%.

False. DOL = % change in EBIT/% change in sales Or, 3.5 = % change in EBIT /7% Or % change in EBIT = 24.5%

29. Other things remaining the same, the degree of financial leverage increases as the firm increases its debt capital.

True. Financial leverage arises due to use of debt or preferred stock or both in the capital structure. Increase in debt or preferred stock or both will increase the financial risk which is measure by degree of financial leverage. If debt or preferred stock increases the degree of financial leverage is also increases and vice versa.

30. The optimal capital structure is the mix of long term sources of financing where the weighted average cost of capital is minimum.

True. The optimal capital structure is the combination of debt, preferred stock, and common equity that minimizes the WACC. At the capital structure where the WACC is minimized, the value of firm's securities (or value of the firm) is maximized. As a result, the minimum cost of capital structure is called optimal capital structure.

31. The trade-off theory states that capital structure decisions involve a tradeoff between the costs and benefits of debt financing.

True. The trade off theory postulates that firms balance the benefits (tax- shield) and costs (financial distress costs) and arrives at an optimal debt ratio. Thus, the optimal debt ratio reflects a trade off between tax shields and the costs of financial distress.

32. Different borrowers have different risks of bankruptcy, and if a borrower goes bankrupt, its lenders will probably not get back the full amount of funds that they loaned. Therefore, lenders charge higher rates to borrowers judged to be more likely to go bankrupt.

True. Lender charge higher interest on loan if there is high chance of default.

33. Modigliani and Miller's first article led to the conclusion that capital structure is "irrelevant" because it has no effect on a firm's value.

True. According to Modigliani and Miller capital structure does not matter how a firm finances its operations—hence, that capital structure is irrelevant to value of the firm.

Dividend Policy

- 1. Other things held constant, the higher a firm's target payout ratio, the higher its expected growth rate should be.
 - False. Higher dividend payout ratio means lower retention ratio and lower retention of money have lower growth rate.
 - We know, $g = Retention ratio \times Return on equity$
 - If retention ratio is small then growth rate will be also small and vice versa.
- All other things being the same a stock may command a higher price if it pays out fixed percentage of earnings than it pays a stable dividend.
 - **False.** Stable dividend policy may command high price. If dividend is fluctuating then the price of the stock will not command higher price and it will fluctuating.
- 3. Partner company has a capital budget of Rs. 1.2 million. The company wants to maintain a target capital structure of 60 percent and 40 percent equity. The company forecasts that its net income this year will be Rs. 600,000. If the company follows a residual dividend policy, company's dividend payout ratio is equal to 20 percent.
 - **True.** The Dividend payout ratio will be 20%.
 - Dividends = Net income (Capital budget \times equity ratio) = Rs 600,000 (Rs 1,200,000 \times 0.40) = Rs 120,000
 - Dividend payout ratio (DPR) = Dividends/Earnings = Rs 120,000/Rs 600,000 = 0.20 Or, 20%
- 4. Himal Gas Co. has 3 million shares outstanding of Rs. 100 (par value) each. If the company declared 100 percent stock dividend, the total number of shares after 100 percent stock dividend would increase to 6 million shares and the par value would decrease to Rs. 50.
 - **False.** After 100 percent stock dividend the number of shares will be doubled i.e. 6 million and there is no effect on par value of stock. i.e. Rs 100 same as previous.
- 5. A company's net income was Rs. 3 million during 2014 and it paid a dividend of Rs. 2.4 million for the year. Given the information, the company's retention ratio is 40 percent.
 - **False.** Retention ratio of the company is 20 percent. Retention ratio = (Earnings Dividends) / earnings = (3 2.4)/3 = 0.20 Or, 20%
- Residual dividend policy always insists maintaining constant dividend payout ratio.
 - **False.** Residual dividend policy insists fluctuating dividend payout ratio because investment in capital budgeting projects may be different year to year.
- If a firm has convenient access to capital market, it prefers larger dividend payment.
 - **True.** A firm's access to capital markets may pay higher dividend and dividend payment will be larger because if the funds is easily available from the capital market then it is able to pay higher dividend payment.
- When company declares dividend and stock goes ex-dividend date, the market price of stock decreases.
 - True. After ex-dividend market price is adjusted and it is decreases.
- 9. If you own 100 shares in a company's stock and the company's stock splits 2 for 1, you will own 200 shares in the company following the split.
 - True. If you have 100 shares, after 2 for 1 stock split the number of shares will be double. (i.e. $100 \times 2/1$)
- 10. If a firm follows a residual dividend policy, holding all else constant, its dividend payout will tend to rise whenever the firm's investment opportunities improve.
 - False. If firm's investment opportunities are improve or increasing then firm must invest more income and less amount is remaining to distribute dividend.
- 11. If a firm repurchases its stock in the open market, the shareholders who tender the stock are subject to capital gains taxes.

 True. Share repurchase price will be higher than the market price and there is capital gain and there gain is subject to capital gains taxes.
- 12. If your company has established a clientele of investors who prefer large dividends, the company is unlikely to adopt a residual dividend policy.
 - False. Residual dividend policy prefer high amount to investment if investment opportunities are available and thus dividend will be less.
- 13 Miller and Modigliani's dividend irrelevance theory says that the percentage of its earnings a firm pays out in dividends has no effect on its cost of capital, but it does affect its stock price.
 - False. According to MM theory, the value of the firm will not be affected by any dividend distribution.
- 14 A "reverse split" reduces the number of shares outstanding.
 - True. Reverse split decreases the number of shares by increasing the market price of the share. The purpose of the reserve split is to increase the market price of the shares.
- 15 If on January 2, 2008, a company declares a dividend of Rs 1.50 per share, payable on January 31, 2008, to holders of record on January 17, then the price of the stock should drop by approximately Rs 1.50 on January 15, which is the ex-dividend date.
 - **True.** The price of the stock will decrease by the dividend amount from the ex-dividend date.

- 16. Large stock repurchases financed by debt tend to increase expected earnings per share, but they also tend to increase the firm's financial risk.
 - True. Increase in debt increases the earnings of the firm because debt is the cheapest source of financing which also increases the financial risk of the company.
- 17. The clientele effect suggests that companies should follow a stable dividend policy.
 - True. Clientele effect suggests that companies should follow a stable dividend policy because client demands stable dividends rather than fluctuating one.
- 18. When a company declares a stock split, the price of the stock typically declines--for example, by about 50% after a 2-for-1 split--and this necessarily reduces the total market value of the firm's equity.
 - **False.** Stock split 2 for 1 reduces the price of stock and increases the number of shares. Thus total market value of the firm's equity remains constant.
- 19. The price of the XYZ is Rs 750. If company declared and paid cash dividend of Rs. 25 per share, the market price per share after cash dividend is Rs 735 per share.
 - False. Price after cash dividend = Price before cash dividend Cash dividend per share = Rs 750 Rs 25 = Rs 725 per share
- 20. The price of the ABC company's stock is Rs 700. If company declared and paid 10 percent stock dividend, the new stock price after stock dividend will be Rs 636.3636.

True. Given: Price of stock (P0) = Rs 700; stock dividend declared = 10%; New price after stock dividend =?

We have, New price after stock dividend =
$$\frac{\text{Price of stock}}{1 + \text{Stock dividend in fraction}} = \frac{\text{Rs } 700}{1 + 0.10} = \text{Rs } 636.3636$$

Therefore, the new stock price after stock dividend will be Rs 636.3636.

Working capital management

- 1. Longer the CCC better the working capital management of the firm.
 - **False.** A firm should shorten its cash conversion cycle as much as possible without increasing costs or decreasing sales. This would maximize the profits because the longer the cash conversion cycle, the greater the need for external financing and such financing has a cost.
- 2. Consider the following information of a company for the year 2004.
 - Inventory conversion period 32 days, receivable conversion period 45 days and payable deferred period 23 days. Based on the information, the cash conversion cycle of the company is 100 days.
 - **False.** The cash conversion cycle of given information is 54 days. Given: ICP = 32 days; RCP = 45 days; PDP = 23 days; CCC = ?
 - CCC = ICP + RCP PDP = 32 + 45 23 = 54 days
- 3. A longer cash conversion cycle, CCC, requires higher amount of working capital need.
 - **True.** The financial manager has to acquire the working capital for the duration of cash conversion cycle for the day-to-day business activities smoothly. The cash conversion cycle of 20 days means that the financial manager has to arrange external funds requirement for 20 days. External financing can be determined with the help of the following equation: External financing requirement = Cash conversion cycle × Daily working capital requirement
 - Longer the CCC, the firm need higher amount of working capital.
- 4. A firm that has higher inventory turnover will have longer inventory conversion period.
 - Fasle. High inventory turnover means lower inventory conversion period and it decreases the cash conversion cycle.
- 5. If a firm uses part of the cash it received from payment of an account receivable to buy inventory and leaves the rest in its bank account, its current ratio will remain unchanged.
 - **True.** There is no effect on current ratio. First receivables is collected then receivables is zero and cash is increased by same amount and purchased the inventory by cash then cash is reduced and inventory will increased and total current assets remains same.
- The cash conversion cycle is the total number of days in the operating cycle less the average payment period for inputs.
 False. Cash conversion cycle is the total number of days in the operating cycle less the average payment period for inputs and labor.
- 7. Reduction in disbursement float is beneficial to the company.
 - **True.** If the firm able to reduce disbursement float then firm able to collect collection faster than previous and there is release funds and that funds can be reinvested and the firm will be beneficial.
- 8. Holding more cash in vault results more profit to the firm.
 - False. If cash is hold for the take advantage of change in market price then it is called speculative motive.
- All else equal, a firm that holds safety stocks of inventory will have a lower level of average inventory than firm that does not.
 - **True.** If the inventory is hold as safety stock then firm can hold lower average inventory.
- 10. A loose credit policy requires more investment in receivables than that a tight credit policy requires.
 - True. Loose credit policy means provide more time credit that means more investment in accounts receviables.

11. A firm is holding cash in its vault to take advantage of change in market prices. This is the example of transaction motive of holding cash.

False. If cash is hold for the take advantage of change in market price then it is called speculative motive.

12. The longer the inventory conversion period, the shorter the cash conversion cycle.

False. Longer the inventory conversion period, higher the cash conversion cycle and vice versa.

13. In credit term, 2/10, net 30, 2 percent cash discount will be offered if payment is made within 30 days.

False. 2% cash discount is available if paid within 10 days.

14. If a firm changes its credit policy from 'net 30' to 'net 45', it will bear more opportunity loss than before changing credit policy.

True. If firm provides the credit for longer period than opportunity loss is additional amount of credit for additional days.

15. Short term finance is often used to acquire fixed assets.

False. Short term finance is used to purchase the current assets. On the other hand long term finance is used to buy the long term assets.

16. Accruals are free in the sense that no interest must be paid on these funds.

True: There is no interest payments on wages and taxes because they are spontaneous sources of financing.

17. Discount interest, compensating balance, and commitment fee increase the true or effective cost of loan.

True. If interest is paid in advance, and need compensating balance which reduces the net proceeds and commitment fee increases the cost and effective annual rate will increase.

18. Free trade credit is that credit received during the credit period.

False. Free trade credit is the credit received during discount period and the credit received during the credit period is costly credit.

19. Costly trade credit should only be used when the cost of the trade credit is less than the cost of alternative sources.

True. Company should use least cost sources of financing, so if cost of trade credit is less than other sources then trade credit is used.

20. Shortening the period of a discount loan lowers the effective rate of interest.

False. Shorting the period means the increasing the compounding period. Increasing the compounding period increases the effective interest rate.

21. If interest charges are deducted in advance, this is known as discount interest.

False. If interest is deducted in advance then the loan is called discounted loan. Under this loan, principal is paid at maturity.

22. Line of credit is a formal agreement.

False. An informal arrangement in which a bank agrees to lend up to a specified maximum amount of funds during a designated period.

23. From the viewpoint of the fund user, financing through trade credit is more convenient than arranging a bank loan.

False. Trade credit or accounts payable is a spontaneous source of financing is that it arises from ordinary business transactions. Most firms make purchases on credit, recording the debt as an account payable. On the other hand, bank loan required formal agreement.

24. When the term of purchase is 2/10 net 60, the effective annual cost of non-free trade credit is 20% for a company.

False. EAR of this credit term is 15.89%.

EAR =
$$\left(1 + \frac{\text{Discount rate}}{100 - \text{Discount rate}}\right) \frac{\text{Days in a year}}{\text{CP-DP}} - 1 = \left(1 + \frac{2}{100 - 2}\right) \frac{365}{60 - 10} - 1 = 1.1589 - 1 = 0.1589 \text{ Or, } 15.89\%$$

25. As sales increase, labor costs and thus accrued wages generally increase almost proportionately.

True. Because accrued wages is directly proportional to sales.

26. Stretching accounts payable is a cost-free method of financing a business.

False. Cost of trade credit is the credit taken in excess of "free" trade credit, whose cost is equal to the discount lost. This costly component should be used only when it is less expensive than funds obtained from other sources. False. The cost of cash discount foregone, any possible late payment, penalties or interest charges and the possible deterioration in credit rating of the firm.

27. The most common type of spontaneous financing is a commercial bank loan.

False. Most common type of spontaneous financing is trade credit or accounts payable because it is arises from normal course of business.

28. Prime interest rate is charged by the commercial bank to the large, creditworthy customers.

True. The primate rate is the rate charged to the creditworthy customer by the bank, so it is lower than interest rate for the other customers.

29. A formal, legal commitment to extend credit up to some maximum amount over a stated period of time is line of credit. False. A formal, legal commitment of credit is revolving credit.

30. Lengthening the credit period generates additional financing.

True. Lengthening the credit period or stretching accounts payable generates additional short term financing for the firm by way of the additional buildup in a liability account.

31. The cost of trade credit is made up of discounts lost by not paying invoices within the discount period.

True. Cost of trade credit is the credit taken in excess of "free" trade credit, whose cost is equal to the discount lost. This costly component should be used only when it is less expensive than funds obtained from other sources.

32. Flotation costs are higher for long term debt than for short term debt.

True. Flotation cost is higher for long term financing then short term financing raised from financial market.

33. Given the invoice date of 'September 10' and terms of credit as '2/10 net 30 EOM', the payment date without cash discount is October 30.

True. If the invoice date of September 10 and terms of credit 2/10, net 30 EOM, the payment dates of cash discount taken is October 10 (count from the end of the month i.e. September); and cash discount foregone date is October 30 i.e. Oct 30 i.e. 30 days from the start of the month ie. End of September.

34. The effect of compensating balances is to decrease the effective interest rate of a loan.

False: Compensating balances increase the effective rate because the firm is required to maintain excess non-interest bearing balances.

35. Accounts receivable and inventory are the principal assets used to secure long-term business loans.

False. Accounts receivable and inventory are used to secure short-term loans.

36. The credit terms 1/10, net 45 indicate that a 1% discount is permitted if payment is made within 9 days.

False. A 1% discount is permitted if payment is made within 10 days.

37. A firm wanting trade credit must pledge collateral.

False. Trade credit is more flexible than other short term financing; it is not a secured loan.

38. Accounts payable and inventory are the principal assets used to secure short-term business loans.

False. It should be accounts receivable, not accounts payable.

39. Lenders require collateral for short term financing when they are concerned about the borrowing firm's strong credit rating.

False. Collateral is needed for the poor credit rating.

40. Collect basis loan and discount loan are difference due to the maturity period.

False. They are different due to the interest payment. Under collect basis loan, interest is paid at the end of year and interest is paid in advance under discount loan.

41. Short term interest rates fluctuate more than long term rates.

True. If a firm uses long-term debt, its interest costs will be relatively stable over time; however, if the firm uses short term, its interest expense will fluctuate widely.

42. If interest is deducted in advance, the loan is called installment loan.

False. If interest is deducted in advance then the loan is called discounted loan. Under installment loan, the principal and interest paid yearly by the installment.

Financial Planning and Forecasting

1. Notes payables is not directly related to sales.

False. Notes payable is short term bank loan which is arises due to formal agreement. Thus, it is not affected by sales directly. Other spontaneous sources of financing are directed affected by sales.

Retained earnings are directly related to sales.

False. Retained earnings is varies with sales but not in directly. Retained earnings is calculated as follows:

Retained earnings = New sales × Profit margin × Retention ratio

An increase in a firm's inventory will call for additional financing unless the increase is offset by an equal or larger increase in some other asset account.

False. Increase in sales will increase the inventory in the same ratio as sales and other assets in the balance sheet.

4. If the capital intensity ratio of a firm actually decreases as sales increase, use of the formula method will typically overstate the amount of additional funds required, other things held constant.

True. The amount of assets required per rupee of sales is called capital intensity ratio. This ratio has a major effect on capital requirements. Companies with higher assets to sales ratios require more assets for a given increase in sales, hence a greater need for external financing.

5. If the dividend payout ratio is 100 percent, all ratios are held constant, and the firm is operating at full capacity, then any increase in sales will require additional financing.

True. Increases in sales needed extra financing because there is no retained earnings.

6. One of the first steps in the percent of sales method of forecasting is to identify those asset and liability accounts that increase spontaneously with retained earnings.

False. First steps in percent of sales method of forecasting to find those assets and liability accounts directly vary with sales.

7. Pro forma financial statements provide the firms current financial statements.

True. Pro forma financial statements provide the firm's current financial performance.

8. An increase in dividend policy reduces the additional funds required.

False. Increases dividend policy means less amount of retained earnings and generate less retained earnings and thus have more need for external financing.

9. A decrease in the firm's tax rate reduces the additional funds needed.

True. Decrease in firm's tax rate means the higher the profit margin, the larger the net income available to support increases in assets, hence the lower the need for external financing.

10. An increase in capital intensity ratio increases the additional funds needed.

True. The amount of assets required per rupee of sales is called capital intensity ratio. This ratio has a major effect on capital requirements. Companies with higher assets to sales ratios require more assets for a given increase in sales, hence a greater need for external financing.

The end

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Thank You,

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