**Q1. “Leverage being defined as the relationship between two financial variables”. Why the study of leverages is an important concept in finance?**

**Ans.**

Leverage is defined as the relationship between debt capital and earning per share. Leverage measures the ability of organisation to earn profit on debt capital so that the returns to the equity shareholders could be increased. It involves the use of fixed magnify the returns.

Leverage forms an important part of financial management as it helps in determining an optimal proportion of debt and equity in a firm's capital structure, so that cost of capital can be reduced.

For example: An organisation raises funds through various sources for which they have to payback fixed rate of interest, but when an organisation raises funds through equity they have to payback a variable rate of interest which depends on profit of organization. Organisations have variable proportion of debt to equity ratio, which keeps on fluctuating according to market congestion. Now, when an organisation raises funds through debt capital and faces fixed interest rates but with rising debt capital organisations may have profits which is then divided (dividend) among the shareholders. So, this relationship between earning per share and debt capital is obtained through leverage.

**Q2. You being the finance manager of AB Ltd. The management is interested in CVP analysis which helps in forecasting profits, in analyzing the changes in profit happens because of changes in sales volume and cost. Discuss such CVP techniques you will use to satisfy the management?**

**Ans.**

Techniques for CVP analysis are:

1. **Fixed cost and variable cost:**   
   FIxed costs are constant for a specific level of production over certain time-period. However, it may change when production goes off limit. Whereas, variable cost cost changes with each unit of production and proportional to production factor.
2. **Profit volume Ratio:**

This states a relation between profit and volume i.e. with increase in volume of  
 production profit of organisation increases.

1. **Differential costing:**

It's a costing technique that measures the variation in the total cost of production with the  
 change in business operation.

1. **Break-even analysis:**

It's a point where the sales revenue is equal to the cost of production. It's a minimum

requirement that an organisation should met in order to survive.

1. **Margin of safety ratio:**

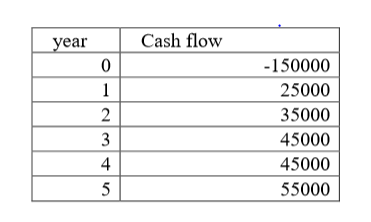
It's the ratio of sales and profit of an organisation.

1. **Sales mix analysis:**

It's a process of establishing a relationship between sales variable and the CVP.

**Q3. a)**

**Given the following as cash flow from a project, calculate the NPV. The required rate of return is 9 %**

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**Whether the company should accept the project or not ?**

**Ans.**

NPV =

I = 150000

C1 = 25000

C2 = 35000

C3 = 45000

C4 = 45000

C5 = 55000

Now, Putting values into the formula

NPV = 22935.77+29458.79+34749.034+31892.27+35746.78 - 150000

NPV = 154782.646 - 150,000 => 4782.646 => +ve value

Hence, company should accept the project.

**b)**

**Given the following financial statement data, calculate the net operating cycle.**

**Credit sales 250000**

**Cost of goods sold 200000**

**Accounts receivable 25000**

**Inventory closing balance 23000**

**Inventory opening balance 20000**

**Accounts payable 17000**

**Ans.**

Net Operating Cycle = DaysInventory Outstanding + DaysSales Outstanding + Days Payables Outstanding

=> DIO + DSO - DPO

DIO = Average Inventory % cost of sales per day

Cost of sales per day = cost of sales / 365 = 200000 / 365 = 547.9452

Average Inventory = 20000 + 23000 / 2 = 21500

DIO = 21500 / 547.9452 => 39.2375

DSO = Average accounts receivable / net sales per day

Net sales = 250000 / 365 = 684.9315

Average accounts receivable = 25000

DSO = 25000 / 684.9315 => 36.50

DPO = Average accounts payable / cost of sales per day

Cost of sales per day = cost of sales / 365 = 200000 / 365 = 547.9452

Average accounts payable = 17000

DPO = 17000 / 547.9452 = 31.025

NOC = 39.2375 + 36.50 - 31.025 => 44.7125

Net operating cycle = 44.7125