

1. iv) D

2. i) A

3. iv) D

4. iv) D

6. Ratios to analysis the efficiency of business are as follows.

i) Inventory Turnover Ratio :-  $\frac{\text{Cost of Good sold}}{\text{Average Inventory}}$

This Ratio shows how long inventory is held on Average. less the ratio more the company is efficient.

ii) Trade Recivable Turnover period :

$$\frac{\text{Trade Recivable}}{\text{Credit Sales}} \times 365$$

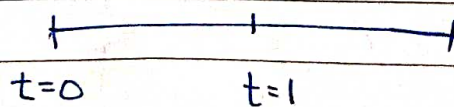
This is measure of average time taken for trade reciveables. to settle their balance.

iii) Trade Payable Turnover period :

$$\frac{\text{Trade Payable}}{\text{Credit Purchased}} \times 365$$

This is average time taken by business to pay Supplies. The longer the period. more profitable the Supplies.

5.



$$\text{tax} = 40\%$$

Discount Rate: 20%

i) Net cash flow (t=1)

$$2500 - 1500 = 1000$$

$$\text{tax} \rightarrow 40\%$$

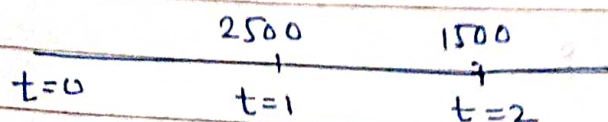
$$1000 (40\%) = 400$$

$$\text{Net cash flow} = 1000 - 400 = 600$$

ii) NPV at  $t=0$

$$600 (1.2)^{-1} = 500$$

iii)



$$\begin{aligned} \text{Net cashflow at } t=1 &= 2500 (1 - 0.4) \\ &= 2500 (0.6) \\ &= 1500 \end{aligned}$$

$$\text{Inflow, so, NPV at } t=0 \Rightarrow 1500 (1.2)^{-1} = 1250$$

$$\text{outflow, so, NPV at } t=0 \Rightarrow 1500 (1.2)^{-1} = -1041.667$$

$$\text{So, NPV at } t=0$$

$$\begin{aligned} &1250 - 1041.667 \\ &= 208.34 \end{aligned}$$

Q.7) Limitation of Ratio analysis are as follows.

i) Inflationary cost:

If Inflation occur between periods, then real prices are not reflected in financial statement, hence cannot be comparable.

ii) Historical Inflation:

The Information used in analysis are passed Real Result least by the company hence cannot analysis future outcome changing in accounting policy. Due to the changes in financial result, the result Recorded before & After changed cannot be covered.

iii) Operational change:

When significant operation changes occurs the Comparisons before & After the change may

lead to misleading conclusion about company performance and future growth

#### iv) Changes In accounting Policies:

If company changes its accounting policies and procedure hence affecting the financial reporting due to changes financial result recorded before & after change are not comparable.

#### v) Seasonal effect :

The inability to adjust ratio analysis to the seasonal effects may lead to false interpretation of the result from the analysis.

#### vi) Manipulation of financial statement :

Company may manipulate the actual result to a better result, hence wouldn't know the true nature of business.

Q8) i) Beta is the measure of volatility or systematic risk of the stock when compared to market.

ii) when  $\beta \approx 0$ , the market is stable i.e. profits are constant.

iii) when  $\beta > 1$ , the company has high volatility. For e.g. if  $\beta = 1.5$ ; The market is earning 1 then the company will earn 1.5.

iv) If  $\beta > 1$ , it means if market is growing our company is declining & vice versa.

II) Tax = 30%       $B_a = 1.1$        $D/E = 1.2$

$$B_a = B_u \left( 1 + \frac{D}{E} (1 - \text{tax}) \right)$$

$$1.1 = B_u \left[ 1 + \frac{1}{2} (1 - 30\%) \right]$$

$$1.1 = B_u [1.35]$$

$$B_u = 0.8148$$

$$B_G = B_u \left( 1 + \frac{D}{E} (1 - \text{tax}) \right)$$

$$= 0.8148 \left( 1 + (1 - 30\%) \right)$$

$$= 0.8148 (1 + 0.70)$$

$$= 0.8148 (1.7)$$

$$B_G = 1.3851$$

q9> (D)

q10> (I) The main aim of management is to maximize the wealth of shareholder but sometime they are not consistent with this aim

ii) It is very common to have conflicts b/w owners and manager as manager don't profit directly from the firm's goal to maximize shareholders wealth.

iii) Hence agency problem arises when management don't want interest of shareholder.

$$(I) \text{ ROE} = \text{Dividend yield} + \text{Growth}$$

$$= \frac{10}{70} + \frac{8}{100}$$

$$\text{ROE} = 22.285\%$$

$$\text{ROE} = R_f + (\mu_m - \mu_f) \beta$$

$$22.285 = 6 + 5 (\beta)$$

$$\beta = 3.257$$

Systematic Risk increase by 80 %.

$$B_N = 3.257 + 0.80 (3.257)$$

$$B_N = 5.8626$$

$$\begin{aligned} ROE_N &= 6 + 5 (B_{\text{New}}) \\ &= 6 + 5 (5.8626) \end{aligned}$$

$$ROE_N = 35.313 \%$$

$$\begin{aligned} ROE_N &= \text{Divident yield} + \text{Growth} \\ &= \frac{10}{x} + 8\% = 35.313\% \end{aligned}$$

new market Price of share.

$$x = 36.61 \quad \text{new max}$$

Q11) i) Beta of stock.

$$B_i = \frac{\sigma_{im}}{\sigma_m^2}$$

where,  $\sigma_{im}$ : Covariance of stock & market.  
 $\sigma_m^2$ : standard deviation of Market.

$$\text{Sin } \theta \cdot \sigma_{im} = \rho_{im} \sigma_i \sigma_m$$

$$\text{So } B_i = \frac{\rho_{im} \sigma_i \sigma_m}{\sigma_m^2}$$

$$B_i = \frac{\rho_{im} \sigma_i}{\sigma_m}$$

Where  $\rho_{im}$  is Correlation Coefficient b/w market and stock.

$$ii) \beta_G = \beta_u \left[ 1 + \frac{P}{E} (1 - \text{tax}) \right]$$

iii) As an active Investor, we invest in  $\beta_s = 1$  as if we invested  $\beta = -1$  even if market is growing our company wouldn't increase falling.

iv) Government Bonds.

Ques: (12)

$$(i) COE = r_f + (r_m - r_f) \beta$$

$$= 7 + 5(1.5)$$

$$\Rightarrow 14.5\%$$

$$LOD = \text{Horse debt} (1 - \text{tax})$$

$$= 9(1 - 0.25)$$

$$= 6.75\%$$

$$\text{WACC} = \frac{\text{Cost of Debt} \times \text{Debt}}{\text{Debt} + \text{Equity}} + \frac{\text{Cost of Equity} \times \text{Equity}}{\text{Debt} + \text{Equity}}$$

$$\Rightarrow \frac{1}{2} (6.75) + \frac{1}{2} (14.5)$$

$$= 10.625\%$$

$$(ii) \quad \frac{B_0}{E} = \frac{B_0}{1 + \frac{D}{E} (1 - \text{tax})}$$

$$1.5 = \frac{B_0}{1 + (1 - 0.25)}$$

$$B_0 = 0.8571$$

$$COE = r_f + (r_m - r_f) \beta_0$$

$$= 7 + 5(0.8571)$$

$$= 11.2857\%$$

$$\text{WACC}_{\text{new}} \Rightarrow \text{cost of equity} = \boxed{11.2857\%}$$

Q14

i) Current ratio :  $\frac{\text{Current assets}}{\text{Current liabilities}}$

- Uses :
- This ratio is used to assess whether the company will be able to pay its bills over the next few months.
  - It provides a comparison of an estimate of amount of money due to be received in short term with an estimate of amount of money to be paid.
  - A low ratio would indicate that company will face issues paying to its creditors.
  - A ~~extra~~ excessively high ratio would mean that there's a pile of cash tied up in unproductive short term assets.

ii) Debtors turnover period :  $\frac{\text{Average accounts receivable}}{\text{Net credit sales}}$

=>  $\frac{\text{Average accounts receivable}}{\text{Net credit sales}}$

- Uses
- This ratio measures how well a company uses & manages its credits. It extends to customers & how quickly the cost customers & delay.
  - A high ratio would mean the corporate's collection & processes are efficient with quality customers.
  - A low ratio would indicate the result of inefficient collection processes.

II

(i) The finance managers should use quick ratio.

$$(ii) \text{ Quick Ratio} = \frac{\text{Current assets} - \text{inventories}}{\text{Current Liabilities}}$$

(iii) This Ratio aims at looking short term liquidity.

(iv) This Ratio considers what would happen if all creditors accounts were settled immediately.

(v) A quick ratio of much less than 1 would mean that company will face problems paying its creditors.

Ques (15)

(i) An investor might buy shares of this company because it provides high dividend yield of 4%. No doubt the company may be risky but it has attractive dividend yield.

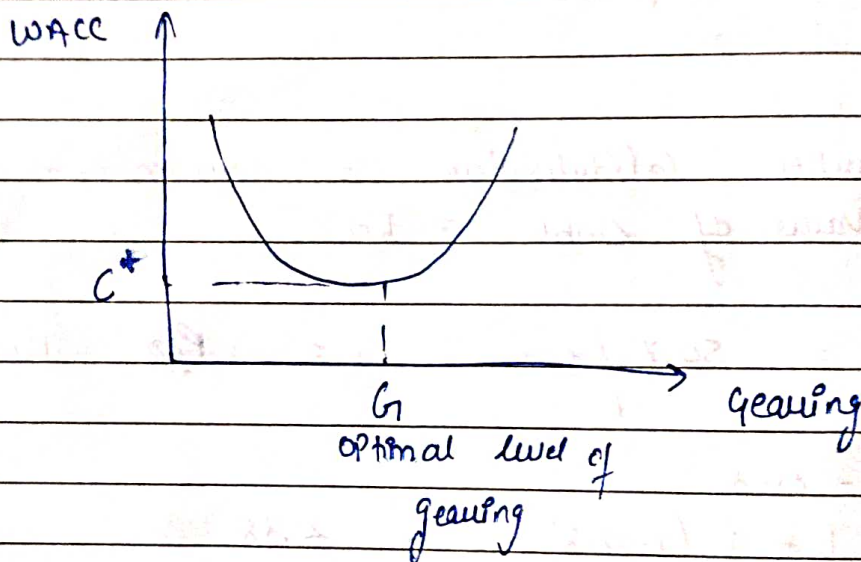
Net cost of debt = 8%

Net cost of equity = 4%

$$\text{WACC} : \frac{4\% + 8\%}{2} = \boxed{6\%}$$

### (ii) Traditional View:

- It focussed on optimised level of gearing.
- It believed that increasing in level of gearing i.e. increasing debt would bring down cost of capital  $\downarrow$  (due to tax effects), but on further increasing gearing, the risk to shareholders  $\uparrow$  will eventually increase cost of capital  $\uparrow$  hence WACC will increase.

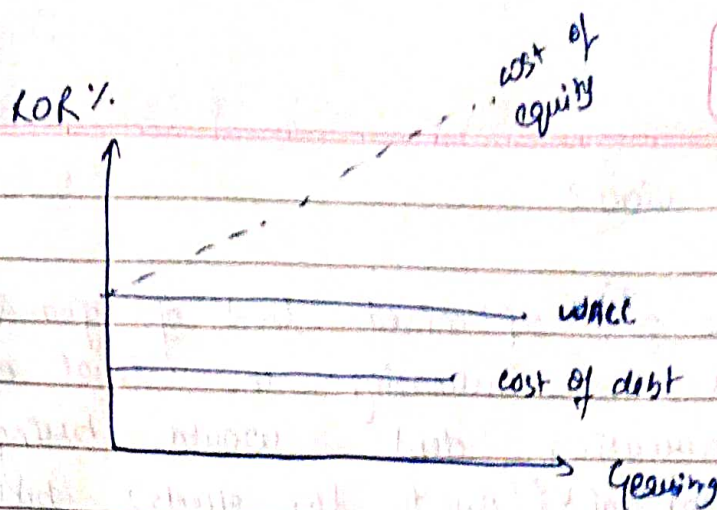


(iii) First fundamental proposition of Modigliani & Miller states the market value of a firm is independent on its financial structure of  $\frac{D}{E}$ .

### Assumptions:

- There are no taxes
- Debt is risk free
- There are no agency cost
- No information asymmetries
- Unlimited personal & company borrowing at same interest.

(iv)



(v)

$M_f = 6\%$        $M_d = 5\%$        $B_{un} = 1.4$

$$COE = M_f + (M_f - M_d) B \Rightarrow 6\% + (1.4)(5\%) = 13\%$$

(b)

Total market capitalisation = 100 m  
market value of debt = 50%.

$$D/E = 50\% / 50\% = 1:1$$

$$\text{tax} = 0.3$$

$$B_u = 1.4 \left( 1 + \frac{1}{1} (1 - 0.3) \right) = 2.38$$

(c)

$$\begin{aligned} COE &= M_f + (B \times M_d) \\ &= 6\% + 2.38 (5\%) = 17.9\% \end{aligned}$$