

Q1) D) IRR is the most reliable means of choosing b/w mutually exclusive projects.

Q2) A) $\frac{\text{Market price of share}}{\text{Earnings per share (EPS)}}$

Q3) D) All of above.

Q4) 9,00,000

Q5) Ratios used to measure any business efficiency are as follows:-

i) Inventory turnover period - This ratio attempts to show how long inventory is held for on average.

ii) Trade receivables Turnover Period - This measures the average of time taken for the trade receivables to settle in their balance.

iii) Trade Payables turnover Period - This ratio indicates the average number of days credit company has ~~to~~ from its suppliers.

7) The limitations of Ratio Analysis are as follows:-

i) The ratios are ^{solely} dependent on book values of a company.

ii) These ratios purely depends on the industry type.

iii) In many ratios, intangible assets are removed from the calculations, which can be misleading in some aspects of analysis.

Q8) Geared Beta = Ungeared $\times \left(1 + \frac{\text{Debt}}{\text{Equity}} (1 - \text{tax}) \right)$

$$1.1 = \text{Ungeared} \times \left(1 + \frac{1}{2} (1 - 30\%) \right)$$

$$\text{Ungeared} = 0.815$$

New geared beta with D/E = 2:2 is:-

$$= 0.815 \times \left(1 + \frac{2}{2} (1 - 30\%) \right)$$

$$= 1.385 \text{ approx.}$$

9) D) In general, market Value of investment trust is not correlated to NPV.

11) i) Beta is a ~~average~~ value that measures fluctuations of a stock to changes in overall stock market.

ii)
$$\text{Beta} = \frac{\text{Covariance b/w individual stock return}}{\text{Variance of market index}}$$

iii) Beta of -1 means that the stock is inversely proportional to the pace of market. However, Beta of 1 means that stock is in pace with market. If market grows, stock will grow. I would personally invest in a stock with beta of 1 .

$$Q12) \quad WACC = \frac{\text{Market Value of Debt}}{\text{Debt} + \text{Equity}} \times \text{net cost of debt} + \frac{\text{Market Value of Equity}}{\text{Debt} + \text{Equity}} \times \text{Cost of equity}$$

$$\begin{aligned} \text{Cost of Equity} &= r_f + \text{Beta} (r_m - r_f) \\ &= 7\% + 1.5 \times 5\% = 0.145 \end{aligned}$$

$$\begin{aligned} \text{Cost of debt} &= \overset{\text{gross}}{\text{Cost of debt}} \times (1 - \text{tax}) \\ &= 9\% \times (1 - 25\%) \end{aligned}$$

$$\begin{aligned} WACC &= \frac{1}{2} \times 0.145 + \frac{1}{2} \times 9\% \times (1 - 25\%) \\ &= 10.625\% \end{aligned}$$

14) a) Current Ratio : $= \frac{\text{Current Assets}}{\text{Current Liabilities}}$

This ratio states that whether the company will be able to pay its bills or liabilities in next few months.

b) Debtors turnover Period :
 $= \frac{\text{Trade Receivables} \times 365}{\text{Credit Sales}}$

~~Also =~~ ~~also~~

This measures the average time taken by the debtor to settle their balance.

Trade receivables turnover period is also known as Debtor turnover Period.

ii) He should check Quick Ratio on a regular basis because the company's inventory turnover period is high, which implies company has a big inventory which will take time to liquidate and there is a chance that company will have to sell its current assets to meet its short term liabilities.

15) The investor should buy the shares of the company because:-

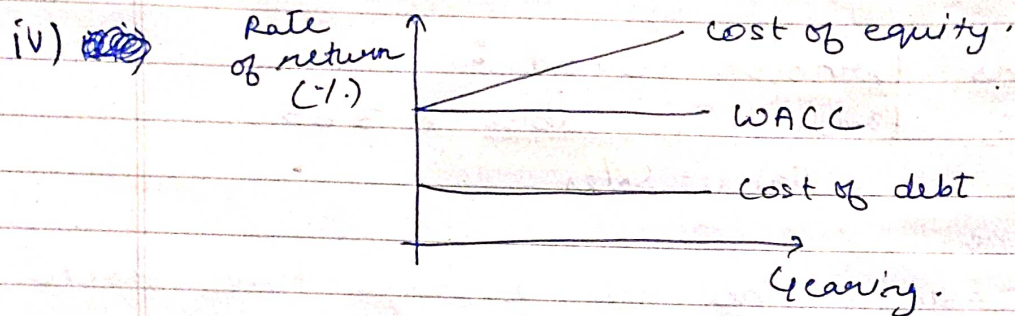
i) The company has the capability to pay off its debt as debt to equity ratio is 1:1.

ii) To diversify its portfolio.

iii) To maximize Return.

Cost of capital $= \frac{1}{1+1} \times 8\% + \frac{1}{1+1} \times 4\%$
 $= 6\%$

- ii) When gearing increases, WACC will remain constant particularly in this case because cost of debt is cheaper than cost of equity. MM's first proposition states that WACC remains constant irrespective of gearing.



v)

$$\begin{aligned} \text{cost of equity} &= \text{Risk free rate} + \beta \times (\text{Equity Risk premium}) \\ &= 6\% + 1.4(5\%) \\ &= 13\% \end{aligned}$$

b) Debt = 40% Market Value = 60%

$$\text{Debt to Eq. Ratio} = \frac{0.40}{0.60} = \frac{2}{3}$$

$$\begin{aligned} \text{Gearing Beta} &= \text{Ungeared Beta} \times \left(1 + \left(\frac{\text{Debt}}{\text{Equity}} \right) \times (1 - \text{tax}) \right) \\ &= 1.4 \times \left(1 + \frac{2}{3} \times 70\% \right) \\ &= 2.053 \text{ approx.} \end{aligned}$$

iii) New cost of equity = 6% + gearing beta $\times$ Eq. Premium

$$\begin{aligned} &= 6\% + 2.053 \times (5\%) \\ &= 10.88\% \text{ approx.} \end{aligned}$$

$$\text{Q5) i) Cashflow} = (\text{Sales} - \text{Costs}) \cdot (1 - 40\%) \\ = 600$$

$$\text{ii) NPV} = \frac{600}{(1 + 0.2)^1} = 500$$

$$\text{iii) NPV} = \frac{2500 - 400}{(1 + 20\%)^1} - \frac{1500}{(1 + 20\%)^2} \\ = 708.33$$