

Sakshi Tripathi

Roll No. 81

Business Finance

Assignment 1.

Q.1 D. IRR is the most reliable means of choosing between mutually exclusive project.

Q.2 A. Market price of share / Earning per share.

Q.3 D. All of the above

Q.4 D. 10,00,000

Q.6. Tax = 40%

Discount Rate = 20%

Cashflow at time 1 :

inflow = 2500 rupees

Outflow = 1500 rupees

i)

Net cashflow at $t=1$ = inflow - Outflow
= ₹1000

after taxes = $1000 * (1 - t)$
= 600

ii) $NPV = 600 * (1 + 20\%)^{-1}$
 $NPV = ₹500$

iii) Cashflow at time 1

inflow = 2500

Outflow = 0

Net cashflow = 2500

Net cashflow after taxes = 2500 (1-t)

Net cashflow after taxes = 1500

Cashflow at time 2

inflow = 0

Outflow = 1500

Net cashflow = -1500

$$NPV = 1500 \cdot (1.2)^{-1} - \frac{1500}{(1.2)^2}$$

$$NPV = 208.34$$

Q.6

- Efficiency ratio determine how productively a company manages its assets and liabilities to maximise profits.
- Shareholders look at efficiency ratio to assess how effectively their investments in the company are being used.
- Some of the most commonly considered efficiency ratios include inventory turnover, accounts receivable turnover, accounts payable turnover and the cash conversion cycle (CCC).

The most common efficiency ratios include :-

- * Accounts Receivable turnover.
- * Working Capital Ratio
- * Asset turnover Ratio
- * Total Asset turnover Ratio
- * Inventory Ratio
- * Days sales in Inventory

Q.10)

- The goal of shareholder wealth maximization specifies how financial decisions should be made.
- In practice, however, not all management decisions are consistent with this objective.
- There often may be a divergence between the shareholder wealth maximization goal and the actual goals pursued by management. The primary reason for this divergence has been attributed to separation of ownership and control in corporation.
- Separation of ownership & control has permitted managers to pursue goal more consistent with their own self interests.

ii) Dividend per share (DPS) = 10 ₹
MPS = ₹70

Company's growth rate = 8%

Risk free rate = 6%

Equity risk premium = 5%

Dividend yield = $(DPS / MPS) \times 100$
= 14.2857%

Cost of Equity = $d + g$
= 22.5857%

Also, cost of equity = risk free rate
+ Beta (Equity risk premium)

$22.5857\% = 6\% + \text{Beta}(5\%)$

Beta = 3.25714

If systematic risk increases by 80%, beta increases by 80%

$$\text{New Beta} = 5.86286$$

$$\text{Cost of equity} = \text{Risk free rate} + \text{New Beta} \times \text{Equity risk premium}$$

$$\text{Cost of equity} = 6\% + 5.86286 \times 5\%$$

$$\text{Cost of equity} = 35.31428\%$$

$$\text{Cost of equity} = d + g$$

$$\text{MPB} = \text{be} \times$$

$$35.31428 = (DP S/x) 100 + 8\%$$

$$(3-1) \text{ deb } p \text{ } 2003 \text{ } x = 36.61089$$

the market price of the stock falls to
£36.61089

11.

Beta is a measure of the volatility or systematic risk of a security or portfolio compared to the market as a whole. Beta is a

$$\text{Beta coefficient} = \frac{\text{Covariance}(R_s, R_m)}{\text{Variance}(R_m)}$$

(i) Beta could be calculated by first dividing the security's standard deviation of returns by the benchmark's standard deviation of returns. The

iii) As an active stock investor, I would invest my money in stock having a beta of positive 1 because in long run markets will only go up so my stock will also go up along with market.

Q12 Debt : Equity = 1 : 1

Risk free rate = 7%

Equity Risk Premium = 5%

Gearred Beta = 1.5

Gross Cost of debt = 9%

Tax rate = 25%

Net cost of debt = gross cost of debt $(1 - t)$
 $= 9\% (1 - 25\%)$
 $= 6.75\%$

Cost of equity = risk free rate +
Gearred beta
 $7\% + 1.5 (5\%)$
 14.5%

WACC = $\frac{1}{2}$ (Cost of equity) + $\frac{1}{2}$ (Cost of Debt)

$= \frac{(14.5\% + 6.75\%)}{2}$

WACC = 10.625%

$$\text{iii) Gearing beta} = \frac{\text{Ungeared beta} (1 + (\text{debt} : \text{equity}) (1 - \text{tax rate}))}{1}$$

$$\text{Ungeared beta} = 0.85714$$

$$\text{Cost of equity} = 7\% + 0.85714 (5\%)$$

$$= 11.2857\%$$

Q.18.

i) At IRR NPV is 0.

$$\text{IRR} = 15\%$$

$$\text{NPV @ IRR} = \text{Initial investment} + \frac{40000}{(1.15)^1} + \frac{40000}{(1.15)^2} + \frac{40000}{(1.15)^3} + \frac{40000}{(1.15)^4}$$

$$0 = \text{Initial investment} = -1,14,200 \text{ €}$$

$$\text{Profitability index} = \text{PV} / \text{Initial Investment}$$

$$1.064 = \text{PV} / 1,14,200$$

$$\text{PV} = 1,21,508.8 \text{ €}$$

$$\text{NPV} = \text{NPV of inflow} - \text{NPV of outflow}$$

$$\text{NPV} = 1,21,508.8 - 1,14,200$$

$$\text{NPV} = 7,308.8$$

ii) Let the cost of capital be i

$$\text{NPV} = \text{Initial investment} + \frac{40000}{(1+i)^1} + \frac{40000}{(1+i)^2} + \frac{40000}{(1+i)^3} + \frac{40000}{(1+i)^4}$$

$$3.68772 = \left(\frac{1}{(1+i)^1}\right) + \left(\frac{1}{(1+i)^2}\right) + \left(\frac{1}{(1+i)^3}\right) + \left(\frac{1}{(1+i)^4}\right)$$

$$i = 12\%$$

$$\text{Hence, } \text{COC} = 12\%$$

ii) Cost of Project = 1,14,200

iii) Payback period = $\frac{\text{Initial Investment}}{\text{Amount of annuity every year}}$

$$= \frac{1,14,200}{40,000}$$

$$\text{Payback period} = 2.855 \text{ years}$$

Q.14

$$\text{Current Ratio} = \frac{\text{Current asset}}{\text{Current liabilities}}$$

It provides a comparison of an estimate of the amount of money to be paid

b) Debtors turnover period

→ The ratio measures how well a company uses and manages the credit it extends to customers & how quickly that short term is paid

ii)