Financial Management

6/2/25

The art and science of managing money is called finance.

Financial Management

10 marks

debt capital, equity capital } (2) Capital Structuring
ঋণ মূলধন ⇓ নিজস্ব মূলধন ⇓

(1) Estimation of Financial Requirements

(3) Investment Decisions

(4) Portfolio Management

(5) Management of Working Capital — 2/12 mark

→ Working Capital means the funds requires for the daily operations of the business.

(6) Management of Retained Earnings

(7) Management of Cost - Volume Profit —
Make or Buy — for the optimum expanditure.
Debt (choose)

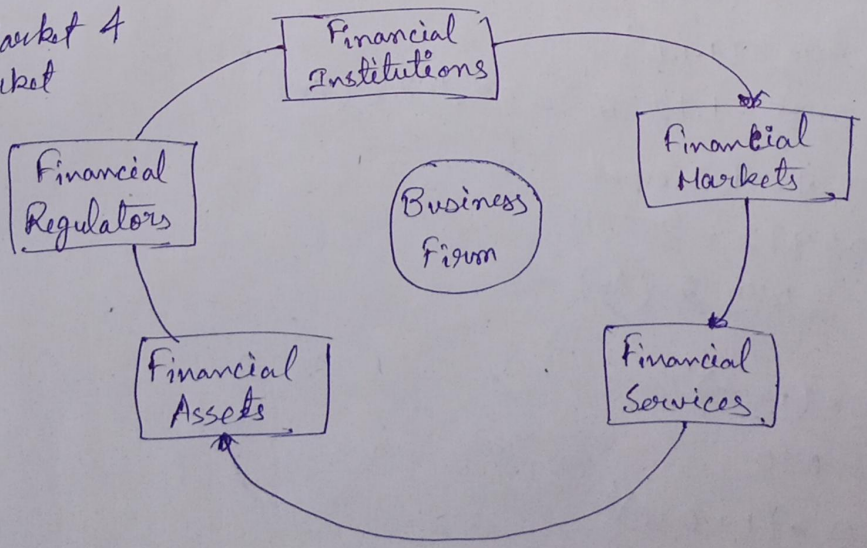
(8) Management of Liquidity —
Assests which are easily convertable to cash is liquid cash

(9) Management of fixed assets

(10) Business Valuation and Corporate Restructuring

Financial Environment

Capital Market & Money Market deals with which investment?



Time Value of Money

$FV = PV(1+r)^n$ ⟶ Compounded Annually

$FV = PV\left(1+\frac{r}{2}\right)^{2n}$ ⟶ " Semi "

$FV = PV\left(1+\frac{r}{4}\right)^{4n}$ ⟶ " Quarterly

$FV = PV\left(1+\frac{r}{12}\right)^{12n}$ ⟶ " monthly

FV = Future Value
PV = Present "
r = Rate of interest
n = no. of years

(1) Interest $= \frac{P r t}{100}$ ₹

$= \frac{50000 \times 10 \times 5}{100}$ ₹

$= 25000$₹ (Ans)

FV = 50000 + 25000 ₹
= 75000 ₹ (Ans)

(2) r = 12% = 0.12 ∴ $FV = P\times\left(1+\frac{r}{n}\right)^{nT}$

$FV = 20000 \times \left(1+\frac{0.12}{2}\right)^{2\times1}$

$= 20000 \times (1+0.06)^2$

$= 20000 \times (1.06)^2$

$= 20000 \times 1.1236 = 22,472$ (Ans)

Interest = FV − Principal
= 22472 − 20000
= 2472 ₹ (Ans)

(3) $FV = P\times(1+r)^T$

r = 10% = 0.10

$FV = 50000 \times (1+0.10)^5$

$= 50000 \times 1.61051 = 80,525.50$₹ (Ans)

(4) $FV = PV \times (1+r)^T$

$$PV = \frac{FV}{(1+r)^T}$$

$r = 10\% = 0.10$

$$PV = \frac{40000}{(1.10)^{10}}$$

$$\Rightarrow PV = \frac{40000}{2.59374} \quad \Rightarrow PV = 15,420.40 \text{ (Ans)}$$

FM

20/2/2025

Net Present Value:

$$NPV = -C_0 + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \dots + \frac{C_T}{(1+r)^T}$$

where,

$-C_0$ = initial investment
C = Cash flow
r = Discount Rate
T = Time

If, $NPV > 0 \rightarrow$ Accept
$NPV \leq 0 \rightarrow$ Reject

Project 1:

$C_1 = 5000$, $C_0 = 10000$, $C_2 = 4000$, $C_3 = 3000$,
$C_4 = 1000$, $r = 10\% = 0.1$

$$NPV = -C_0 + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \dots + \frac{C_T}{(1+r)^T}$$

$$= -10000 + \frac{5000}{1+0.1} + \frac{4000}{(1+0.1)^2} + \frac{3000}{(1+0.1)^3} + \frac{1000}{(1+0.1)^4}$$

$$= -10000 + [4545.45 + 3305.78 + 2253.94 + 683.01]$$

$$= -10000 + 10788.18$$

$$= 788.18$$

Project 2:

$C_1 = 1000$, $C_2 = 3000$, $C_3 = 4000$, $C_4 = 6750$, $C_0 = 10000$
$r = 10\% = 0.1$

$$NPV = -C_0 + \frac{C_1}{1+r} + \frac{C_2}{(1+r)^2} + \dots + \frac{C_T}{(1+r)^T}$$

$$= -10000 + \frac{1000}{1+0.1} + \frac{3000}{(1+0.1)^2} + \frac{4000}{(1+0.1)^3} + \frac{6750}{(1+0.1)^4}$$

$$= -10000 + 909.09 + 2479.33 + 3005.25 + 4610.34$$

$$= 1004.01$$

2) $C_0 = 750000$, $C_1 = 990000$, $r = 5\% = 0.05$, $t = 1$

$$NPV = -C_0 + \frac{C_1}{1+r}$$

$$= -750000 + \frac{990000}{1+0.05}$$

$$= -750000 + 1980000 = 1905\,0000$$

3) 1st

$C_0 = 600$, $C_1 = 680$, $r = 10\% = 0.1$

$$NPV = -600 + \frac{680}{1+0.1} = 18.18$$

2nd

$C_1 = 600$

$C_1 = 600 + 600 \times 10\% = 660$

$r = 0.1$

$NPV_{1st} > NPV_{2nd}$. So, 1st option is better.

Weighted Average Cost of Capital:

Formula:

$$WACC = [E/V * R_e] + D/V * [R_d(1-T)]$$

where,

E = Market value of the firm's equity (market cap)

D = Market value of the firm's debt

V = Total value of capital (equity plus debt)

E/V = Percentage of capital that is equity

D/V = Percentage of capital that is debt

R_e = Cost of equity

R_d = Cost of debt

T = Tax Rate

Q1 Equity

1. Equity Capital = $\frac{3L}{10L} \times 15\% = 4.5\%$
2. Retained Saving = $\frac{2L}{10L} \times 13\% = 2.6\%$

3. Pre. Capital = $\frac{1.5}{10} \times 16\% = 2.4\%$

4. Debtution = $\frac{3.5}{10} \times 12\% \ (1-30\%)$

$= 0.35 \times 0.12 \times 0.7$

$= 0.0294 = 2.94\%$

Now,

$12\% = 0.12$

$\frac{3.5L}{10L} = 0.35$

$30\% - 0.3$
$= 1 - 0.3$
$= 0.7$

$\therefore 12.44\%$

(P2) $\frac{D}{V} = 50\% = 0.5$, $\frac{E}{V} = 50\% = 0.5$

$R_d = 12\% = 0.12$, $R_e = 20\% = 0.2$

$t = 40\% = 0.4$

$WACC = 0.5 \times 0.2 + [0.5 \times 0.12 \times 0.6] \rightarrow 1-0\%$

$= 13.6\%$

Assignment
Q3.
Sunday - 11:59

(*) Optimum Capital Structure →

A capital structure having minimum cost of capital means max. returns ←

FM

20/3/2025

Assignment

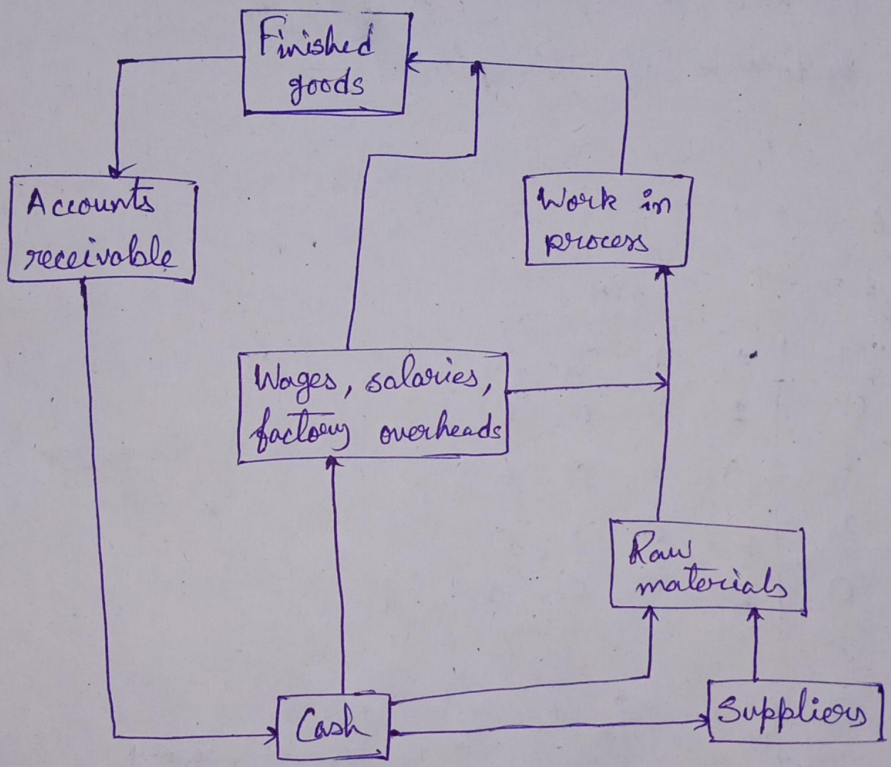
last date: 27-3-25

Qn:

1) Discuss the three strategies of working capital management along with diagrametic representation. (10)

2) Discuss the five factors influencing working capital management requirements. (10)

Current Assets Cycle



i) For the very beginning some amount of cash is needed.

ii) By using the cash, raw materials can be sold.

iii) Using the raw materials we can make goods.

iv) Then the goods are sold on credit that converted in to accounts receivable.

v) It generates the cash again.