

The required rate of return of the company is 10%. Profits before depreciation and taxes during its 5 years of life are estimated as below:

Year	1	2	3	4	5
PBDT (Rs.)	70,000	76,000	80,000	90,000	92,000
PVF@10%	0.909	0.826	0.751	0.683	0.621

The company pays 50% tax on income. Appraise the project on following criteria using following methods:

- (a) Net Present Value. (b) Internal Rate of Return.
- (c) Discounted Payback Period. (d) Accounting Rate of Return.

OR iii. What is Capital Budgeting? What factors affecting Capital Budgeting decisions? **8**

Q.6 i. Write short notes on Gross working capital and Net working capital. **4**
 ii. Compute the amount of working capital requirement for ABC Co. Ltd. **6** from the following information:

	(Rs. /unit)
Raw material	160
Direct labour	60
Overheads	120
Total cost	340
Profit	60
Selling price	400

Raw materials are held in stock on an average for one month. Materials are in process on an average for half-a-month. Finished goods are in stock on an average for one month.

Credit allowed by suppliers in one month & credit allowed to customers is two months. Time lag in payment of wages is 1.5 weeks. Time lag in payment of overhead expenses is one month. One fourth of the sales are made on cash basis. Cash in hand & at bank is expected to be Rs.50,000 and expected level of production amounts to 1,04,000 units for a year. You may assume that production is carried on evenly throughout the year. Add 10% to your computed figure to allow for contingencies. You may assume 52 weeks in a year & 4 weeks a month & state your assumptions if any.

OR iii. What is Working Capital and discuss the factors which determine the working capital needs of the firm. **6**

Enrollment No.....

Faculty of Commerce

End Sem (Even) Examination May-2022

CM3CO11 Fundamentals of Financial Management

Programme: B.Com.(Hons) Branch/Specialisation: Commerce

Duration: 3 Hrs.

Maximum Marks: 60

Note: All questions are compulsory. Internal choices, if any, are indicated. Answers of Q.1 (MCQs) should be written in full instead of only a, b, c or d.

- Q.1 i. The primary objective of Financial Management is _____ **1**
- (a) To maximize the return
 - (b) To minimize the risk
 - (c) To maximize the wealth of share holders
 - (d) To maximize profit
- ii. Present value takes _____ **1**
- (a) Discounting rate (b) Compounding rate
 - (c) Inflation rate (d) Required rate of return
- iii. The company's cost of capital is also known as _____ **1**
- (a) Leverage (b) Hurdle rate (c) Risk rate (d) Rate of return
- iv. Cost of retained earnings is equal to _____ **1**
- (a) Cost of equity (b) Cost of debt
 - (c) Cost of preference share (d) Cost of term loans
- v. Optimum leverage can be defined as the mix of all sources of finance at **1** which the market value of the firm is _____
- (a) Minimum (b) Maximum (c) Optimum (d) None of these
- vi. EBIT level at which EPS remains the same irrespective of the debt-equity mix is called _____ **1**
- (a) Difference point (b) Indifference point
 - (c) Finance point (d) None of these
- vii. Which of the following methods of investment evaluation doesn't consider time value of money? **1**
- (a) Discounted Pay-back period (b) Accounting rate of return
 - (c) Net Present Value (d) Internal rate of return
- viii. Cash inflows on account of operations are presumed to have been **1** reinvested at the cut-off rate in case of _____
- (a) Pay-back period method (b) Accounting rate of return method
 - (c) Discounted cash flow method (d) None of these



Knowledge is Power

P.T.O.

[2]

- ix. Working capital management is concerned with management of _____ 1
 (a) Short term assets and liabilities (b) Long term assets and liabilities
 (c) Only short term assets (d) All assets and liabilities
- x. Bank fixed deposit can be categorized under_____ 1
 (a) Fixed assets (b) Current assets
 (c) Fictitious assets (d) Deferred assets
- Q.2 i. Give definition of financial management. 2
 ii. Explain compounding and discounting techniques of time value of money with example. 3
 iii. Discuss 'Profit Maximization or Wealth Maximization' as the objective 5 of financial management.
- OR iv. Discuss various types of decisions taken by the financial manager under 5 financial management.

- Q.3 i. What do you understand by Weighted Average Cost of Capital? How it 3 is calculated?
 ii. Dynamic Engineers Ltd. has the following capital structure as on 31 7 December 2010:

	(Rs.)
14% Debentures	30,00,000
10% Preference Shares	10,00,000
Equity capital 80,000 shares of Rs.50 each	40,00,000
Total	80,00,000

- The equity shares of the company are quoted at Rs. 20 & the company will pay next year dividend of Rs. 2 per share which will grow at 7 percent forever. Assume 50% tax rate. You are required to calculate:
 (a) Weighted Average Cost of Capital based on existing capital structure.
 (b) Compute the new WACC if the company raises an additional Rs. 20 Lacs debt by issuing 15% debentures. This would result into increase in expected dividend by Rs.1 and the growth rate remain unchanged, but the price of share will fall to Rs.15.
 OR iii. Compute the cost of capital of 12% debentures issued by Vikas (P) Ltd., 7 face value of Rs. 1000, amount of Rs. 20,00,000 in following situations. The life of debenture is 7 years.
 (a) Issued at par, redeemable at premium of 10%.
 (b) Issued at discount of 10%, redeemable at par.
 (c) Issued at premium of 10%, redeemable at premium of 15%.

[3]

- Q.4 i. Explain the concept of Operating, Financial and Combined leverages. 3
 ii. The following information is available in respect of Friomatic Industries 7 Ltd.

	(Rs.)
Equity share capital (Rs. 10 each)	10,00,000
14% Debentures	30,00,000
Fixed cost	12,00,000
Selling price per unit	50
Variable cost per unit	30

At present the company is producing 1,00,000 units per annum. The management of the company plans to increase output by 25%. The tax rate is 40%. You are required to make out the following calculations for the existing as well as planned level of output and compute operating, financial and combined leverages under both cases.

- OR iii. The financial manager of a company has formulated various financial 7 plans to finance Rs. 30,00,000 required to implement a project.
 (a) Either equity shares of Rs. 30,00,000 or 15,00,000 10% debentures and Rs. 15,00,000 equity shares.
 (b) Either equity capital of Rs. 30,00,000 or 13% preference shares of Rs. 10,00,000 and Rs. 20,00,000 equity shares.
 (c) Either equity share capital of Rs. 20,00,000 and 10% debentures of Rs. 10,00,000 or 13% preference share capital of Rs. 10,00,000, 10% debentures of Rs. 8,00,000 and 12,00,000 equity capital.
 You are required to analyse EBIT and EPS for each financial plan. Assuming 35 percent corporate tax rate and the face value of equity share is Rs. 100.

- Q.5 i. What are Standalone projects and Mutually Exclusive projects under 2 capital budgeting. How capital budgeting decisions are taken under both the cases.
 ii. Xavier Ltd. wants to install a new project which will require an initial capital of Rs. 2,00,000 including working capital of Rs. 50,000 with salvage value of Rs. 25,000 and will be depreciated on straight line method. It will also require additional maintenance expenses of Rs. 15,000 at the end of second year.

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Faculty of commerce

10/05

CM3CO11 - F.F M

Scheme & Solution

(Q1)

- i) C
- ii) a
- iii) b
- iv) a
- v) b
- vi) b
- vii) b
- viii) d
- ix) a
- x) a & b

(Q2) i) Definition of F.M. 2 marks

(ii) a) Compounding Technique (1.5 marks)
b) Discounting Technique (1.5 marks)

(iii) a) Profit Maximization (2.5 marks)
b) Wealth maximization (2.5 marks)

IV) Five decision (1x5 marks)

23) a) W.A.C.C. Meaning 2 Marks.
b) Calculation ~~formula~~ 1 Marks.

a3(ii)

3)

$$K_e = \left(\frac{2}{20} \times 100 \right) + 0.07 = 0.1 + 0.07 = 0.17 \text{ or } 17\%$$

(3.5 marks)

Statement Showing WACC (After Tax)

Source	Amt	C.O.C	Weight	WACC
1) Deb	3000000	7%	0.375	2.625%
2) Pres. Share.	1000000	10%	0.125	1.25%
3) Eq. Share.	4000000	17%	0.5	8.5%
	8000000			12.37%

$$WACC = 12.37\%$$

(4 marks)

b) If new capital raises.

(3.5 marks)

$$a) K_e = \left(\frac{3}{15} \times 100 \right) + 0.07 = 0.20 + 0.07 = 27\%$$

Revised WACC (After Tax)

Source	Amt	C.O.C	Weight	WACC
1) 14% Deb.	3900000	7%	0.30	2.1%
2) 10% Pres. Share.	1000000	10%	0.10	1.0%
3) Eq. Share	4000000	27%	0.40	10.80%
4) 15% Deb.	2000000	7.5%	0.20	1.5%
	10000000			15.40%

W.ACC

$$WACC = 15.40\%$$

Q3(iii)

$$\text{Cost of Debt} (K_d) = \frac{I(1-t) + \left(\frac{RV - NP}{N} \right)}{\frac{RV + NP}{2}}$$

a) Issued at par, redeemable at premium of 10%. (2marks)

$$K_d = \frac{120 + \left(\frac{1100 - 1000}{7} \right) \times 100}{\frac{1100 + 1000}{2}} \\ = \frac{120 + 14.28}{1050} \times 100 = 12.78\%$$

b) Issued at dis. of 10%, redeemable at par.

$$K_d = \frac{120 + \left(\frac{1000 - 900}{7} \right) \times 100}{\frac{1000 + 900}{2}} \\ = \frac{120 + 14.28}{950} \times 100 = 14.13\%$$

b) Issued at premium of 10%, redeemable at premium of 15% (3 marks)

$$\begin{aligned}
 &= 120 + \left(\frac{1150 - 1100}{7} \right) \times 100 \\
 &= \frac{1150 + 1100}{2} \times 100 = 1125 \times 100 = @ 11.30\%.
 \end{aligned}$$

$M(I)$ = operating Leverage (1 marks)

Financial Leverage (1 marks)

Combined Leverage (1 marks)

ii)

Particulars	Existing level (\$100,000)	Planned level (\$125,000)
Sales @ \$50	5,000,000	6,250,000
(-) V. cost @ \$30	3,000,000	3,750,000
(-) F. cost	2,000,000	2,500,000
(-) F. cost	12,000,000	12,000,000
EBIT	8,000,000	13,000,000
(+) Int. @ 14%	420,000	420,000
9 \$300,000		
EBT	38,900,000	8,890,000
(-) Tax @ 40%	15,200,000	3,520,000
EAT	22,800,000	5,280,000

Particular	Existing	Planned
$DOL = \frac{C}{\sum B_i}$	$\frac{200000}{800000} = 2.5$	$\frac{2500000}{1300000} = 1.92 \text{ times}$
$DFL = \frac{\sum B_i}{EBIT}$	$\frac{800000}{380000} = 2.10$	$\frac{1300000}{880000} = 1.48 \text{ times}$
$DCL = DOL \times DFL$	$2.5 \times 2.10 = 5.25$	$1.92 \times 1.48 = 2.84 \text{ times}$

- Q4 (iii) Plan (a) - 2 marks
 Plan (b) - 2 marks
 Plan (c) - 3 marks.

Q5 (i) As per the explanation (2 marks)

(ii) Depreciation =

$$\text{Dep} = \frac{(20000 + 5000)}{5} - 25000 = 235000 \text{ / year.}$$

Calculation of cash outflow.

Cost of machine

$$\begin{array}{r} 20000 \\ 5000 \\ \hline 25000 \end{array}$$

(f) Working Capital.

Maintenance exp.
at the end of 2nd
year. (15000×0.826)

$$12390$$

$$\begin{array}{r} \text{Total cash outflow.} \\ 26390 \\ \hline \end{array}$$

Calculation of cash inflow

Year	PBDT Cash inflow	Ref	PBT	Tax @ 50%	PAT	C. inflow
1	70000	35000	35000	17500	17500	
2	76000	35000	35000	17500	17500	52500
3	80000	35000	35000	20500	20500	55500
4	90000	35000	45000	22500	22500	57500
5	92000	35000	55000	27500	27500	62500
		35000	57000	28500	28500	63500

a)

NPV

Year	C.I	PVF@10%	P.V of C.I
1	52500	0.909	47722
2	55500	0.826	45843
3	57500	0.751	43182
4	62500	0.683	42687
5	63500	0.621	39433
W.C	50000	0.621	31050
S.V.	25000	0.621	15525
			265442
			262390
			+ 3052

b) $IRR = LR + \frac{NPV_{at\ LR}}{NPV_{at\ LR} - NPV_{at\ HR}} (H.R - LR)$

Year	C.I.	P.VF@15%.	P.V of C.I.
1	52500	0.869	45623
2	55500	0.756	41958
3	57500	0.657	37777
4	625000	0.571	35687
5	63500	0.497	31560
W.C+S.V	75000	0.497	37275
			229880
			262390
			-132510
		T.P.V. of C.I.	
		(-) Cash outflow	

$$\text{IRR} = 10\% + \frac{3052}{3052 - (-32510)} \times (15\% - 10\%)$$

$$= 10\% + 0.085 \times 5\%$$

$$\text{IRR} = 10.42\%$$

c) discounted payback period

Year.	C.I.	Cum. C.I.	P.BP
1	47722	47722	IRR = 4 years.
2	458583	93565	
3	43182	136747	D.P.B.P = 5 years.
4	42687	179434	
5	39433	218867	
W.C+S.V.	46575	265442	

d) Accounting Rate of Return (ARR) (2marks)

$$ARR = \frac{\text{Average PAT}}{\text{Average investment}} \times 100$$

$$\text{Avg PAT} = \frac{\text{Total PAT}}{\text{No. of years}}$$

$$= \frac{116500}{5}$$

$$\text{Avg PAT} = 23300$$

$$\text{Avg Investment} = \frac{\text{Cost} - S.V}{2} + S.V + W.C$$

$$= \frac{200000 - 25000}{2} + 25000 + 5000$$

$$87500 + 7500$$

$$\text{Avg Inv.} = 162500$$

$$ARR = \frac{23300}{162500} \times 100$$

$$ARR = 14.33\%$$

QST II) Meaning of Capital budgeting (2marks)
Six factors affecting C.B (1x6 marks)

Year	C.I.	P.VF@15%.	P.V of C.I.
1	52500	0.869	45623
2	55500	0.756	41958
3	57500	0.657	37777
4	625000	0.571	35687
5	63500	0.497	31560
W.C+S.V	75000	0.497	37275
			229880
			262390
			-132510
		T.P.V. of C.I.	
		(-) Cash outflow	

$$\text{IRR} = 10\% + \frac{3052}{3052 - (-32510)} \times (15\% - 10\%)$$

$$= 10\% + 0.085 \times 5\%$$

$$\text{RR} = 10.42\%$$

c) discounted payback period

Year.	C.I.	Cum. C.I.	P.BP
1	47722	47722	IRR = 4 years.
2	458583	93565	
3	43182	136747	
4	42687	179434	DPBP = 5 years.
5	39433	218867	
W.C+S.V.	46575	265442	

- Q6 (Q) Gross Working Capital (2 marks)
 (P) Net Working Capital (2 marks)

i) Calculation of Working Capital. (6 marks)

Particular	Amount
A) Current Assets:	
a) R.M. $\left(\frac{104000 \times 160}{12} \times 1 \right)$	13,86,667
b) W.I.P.	
a) R.M $\left(\frac{104000 \times 160 \times 0.5}{12} \right)$	6,93,333
b) Labour $\left(\frac{104000 \times 60 \times 0.5}{12} \right) \times \frac{50}{100}$	1,30,000
c) Overhead $\left(\frac{104000 \times 120 \times 0.5}{12} \right) \times \frac{50}{100}$	26,000
c) Finished goods $\left(\frac{104000 \times 340}{12} \times 1 \right)$	29,46,667
d) Debtor $\left(\frac{104000 \times 400}{12} \times 2 \right) \times \frac{3}{4}$	52,80,000
e) Cash Balance (Given)	50000
Total of C.A.	<u>1,06,66,667</u>
B) Current Liabilities	
a) Creditors $\left(\frac{104000 \times 160}{12} \times 1 \right)$	13,86,667

<u>Particular</u>	<u>Amt.</u>
b) Outstanding wages $(\frac{104000 \times 60}{52} \times 1.5)$	1,80,000
c) out. overheads $(\frac{104000 \times 120}{12} \times 1)$	10,40,000
II) Total of C.L	<u>26,06,667</u>
III W.C. $((CA - CL) (I - II))$	80,69,000
Add Provision for Contingency @ 10%.	8,06,000
Working Capital Required,	<u>88,66,000</u>

(iii) Meaning of Working Capital (1 marks)
 Factors determine W. Capital (1x5 marks)