Inter CA

General Instructions:

1. The question paper comprises two parts, Part-I and Part-II.
2. Part-I comprises Multiple Choice Questions (MCQs).
3. Part-II comprises questions which require descriptive answers.
4. Ensure that you receive the question paper relating to both the parts. If you have not received both, bring it to the notice of the invigilator.
5. Answers to MCQs in Part-I are to be marked on the OMR answer sheet as given on the cover page of descriptive answer book of Section-A only. Answers to questions in Part-II are to be written in the respective descriptive answer book. Answers to MCQs, if written inside the descriptive answer book will not be evaluated.
6. OMR answer sheet given on the cover page of descriptive answer book will be in English only for all candidates, including for Hindi medium candidates.
7. The bar coded sticker provided in the attendance register, is to be affixed only on the descriptive answer book.
8. You will be allowed to leave the examination hall only after the conclusion of the exam. If you have completed the paper before time, remain in your seat till the conclusion of the exam.
9. Duration of the examination is 3 hours. You will be required to submit the descriptive answer books with OMR cover page to the invigilator before leaving the exam hall, after the conclusion of the exam.
10. The invigilator will give you acknowledgement on Page 2 of the admit card, upon receipt of the descriptive answer books of Sections A and B.
11. Candidate found copying or receiving or giving any help or defying instructions of the invigilators or having / using mobile phone or smart watch will be expelled from the examination and will also be liable for further punitive action.

PART-II **70 Marks**

1. Section A: Question paper comprises 4 questions (1 to 4). Answer Question No. 1 which is compulsory and any 2 out of the remaining 3 questions.
2. Section-B: Question paper comprises 4 questions (5 to 8). Answer Question No. 5 which is compulsory and any 2 out of the remaining 3 questions.
3. Answers to the questions are to be given only in English except in the case of candidates who have opted for Hindi Medium. If a candidate has not opted for Hindi Medium, his/her answers in Hindi will not be evaluated.
4. Working notes should be part of the respective answers.

PART - I

Case Scenario 1

Tiago Ltd is an all-equity company engaged in manufacturing of batteries for electric vehicles. There has been a surge in demand for their products due to rising oil prices. The company was established 5 years ago with an initial capital of ₹ 10,00,000 and since then it has raised funds by IPO taking the total paid up capital to ₹ 1 crore comprising of fully paid-up equity shares of face value ₹ 10 each. The company currently has undistributed reserves of ₹ 60,00,000. The company has been following constant dividend payout policy of 40% of earnings. The retained earnings by company are going to provide a return on equity of 20%. The current EPS is estimated as Rs 20 and prevailing PE ratio on the share of company is 15x. The company wants to expand its capital base by raising additional funds by way of debt, preference and equity mix. The company requires an additional fund of ₹ 1,20,00,000. The target ratio of owned to borrowed funds is 4:1 post the fund-raising activity. Capital gearing is to be kept at 0.4x. The existing debt markets are under pressure due to ongoing RBI action on NPAs of the commercial bank. Due to challenges in raising the debt funds, the company will have to offer ₹ 100 face value debentures at an attractive yield of 9.5% and a coupon rate of 8% to the investors. Issue expenses will amount to 4% of the proceeds.

The preference shares will have a face value of ₹ 1000 each offering a dividend rate of 10%. The preference shares will be issued at a premium of 5% and redeemed at a premium of 10% after 10 years at the same time at which debentures will be redeemed.

The CFO of the company is evaluating a new battery technology to invest the above raised money. The technology is expected to have a life of 7 years. It will generate a after tax marginal operating cash flow of ₹ 25,00,000 p.a. Assume marginal tax rate to be 27%.

1. Which of the following is the most accurate measure of issue price of debentures?

   (a) 100 (b) 96

   (c) 90.58 (d) 95.88

2. Which of the following is the best estimate of cost of debentures to be issued by the company? (Using approximation method)

   (a) 7.64% (b) 6.74%

   (c) 4.64% (d) 5.78%

3. Which of the following best represents the overall cost of marginal capital to be raised?

   (a) 11.76% (b) 17.16%

   (c) 16.17% (d) 16.71%

4. KT Ltd.'s opening stock was Rs. 2,50,000 and the closing stock was Rs. 3,75,000. Sales during the year were Rs. 13,00,000 and the gross profit ratio was 25% on sales. Average accounts payable are Rs. 80,000.

Creditors Turnover Ratio =?

(a) 13.33 (b) 14.33
(c) 14.44 (d) 13.75

5. Total Assets & Current liabilities of the Vitrag Limited are 50 lakhs & 10 lakhs respectively. ROCE is 15%, measure of business operating risk is at 3.5 & P/V ratio is 70%. Calculate Sales.

(a) 21 lakhs (b) 30 lakhs
(c) 37.50 lakhs (d) 40 lakhs

6. Ranu & Co. has issued 10% debenture of face value 100 for Rs. 10 lakh. The debenture is expected to be sold at 5% discount. It will also involve floatation costs of Rs. 10 per debenture. The debentures are redeemable at a premium of 10% after 10 years. Calculate the cost of debenture if the tax rate is 30%.

(a) 8.97% (b) 9.56%
(c) 8.25% (d) 10.12%

7. What is the Internal rate of return for a project having cash flows of Rs. 40,000 per year for 10 years and a cost of Rs. 2,26,009?

(a) 8% (b) 9%
(c) 10% (d) 12% **(7 x 2 = 14 Marks)**

8. What should be the optimum Dividend pay-out ratio, when r = 15% & Ke = 12%:

(a) 100% (b) 50%
(c) Zero (d) None of the above. **(1 marks)**

9. Everyouth Beauty Products Limited, the makers of Feel-Fresh soaps have been suffering from low sales volume from the last six months due to stiff competition. To regain its position, Everyouth Beauty Products Limited launched various schemes such as „win a phone every hours, scratch cards, buy 1 get 1 free and contest on social media. This resulted into increase in sales. Which type of promotional activity didEveryouth Beauty Products Limited adopted?

(a) Sales promotion (b) Advertising
(c) Publicity (d) Personal selling

10. Trekking Poles is a small company based in the Himalayan ranges in India. It is known in the region for its hill walking sticks. Trekking Poles sell specialist walking equipment in their small shop at the foot of the mountains. They do not have a website yet have been able to sell their products at premium prices. Which of the following one of Porter's generic strategies best fits Trekking Poles?

(a) Cost leadership
(b) Differentiation
(c) Focused cost leadership
(d) Focused differentiation

11. An organisation during its strategy planning envisaged entire situation and created a strategy framework. But in mean time after implementation, it realised that its framework is not effective in certain unique unplanned situations. What could be the reason for such ineffectiveness?

(a) Strategy is "partly proactive and Partly reactive"
(b) Lack of analysis and proper planning
(c) Strategy is highly reactive and highly proactive
(d) Improper creation of strategic framework

12. Baba Pvt Ltd has seventeen factories, nine of which they recently gave to other producers on lease. This has increased their cash inflows to a great extent, and they are enjoying this surplus by investing the same in financial assets. Such a strategy can be termed as which of the following?

(a) Divest
(b) Harvest
(c) Hold
(d) Build

13. Mixfix was having a tough time with its operations and wanting to restructure itself from scratch. For this, they consult a veteran in business strategy, Mrs. Sunita K, who post analysis of their business said, "your dead business is worth more than alive". What did Mrs. Sunita hint at?

(a) Restructuring Business
(b) Liquidation
(c) Business Process Re-engineering
(d) Divestment

14. D Mart sells fast moving consumer goods at wholesale prices to retail customers, is a strategy of?

(a) Market Penetration
(b) Cost Differentiation
(c) Cost Leadership
(d) Market Development

15. During which stage of the Product Life Cycle will marketing strategies need to concentrate on differentiating a product from competing products, building brand loyalty and offering incentives to attract competitor''s customers to switch?

(a) Decline
(b) Growth
(c) Maturity
(d) Introduction

16. Delta is an organisation specializing in Information Technology enabled Services (ITeS) and Communications business. Last year, the organisation had successfully integrated an Artificial Intelligence (AI) tool named „Zeus" into the existing ERP system. The AI tool, using Deep Learning technique provided a digital leap transformation in various business processes and operations. It has significantly diminished the role played by specialist managers of the middle management. This technological tool in addition to saving organisational costs by replacing many tasks of the middle management has also served as a link between top and bottom levelsin the organisation and assists in quick decision making. The skewed middle level managers now perform crossfunctional duties. Which type of organisational structure is the company transitioning into?
    (a) Strategic business unit structure (b) Matrix structure
    (c) Network structure (d) Hourglass structure

17. Ever Grand Group is a diversified company active in a wide range of business lines,including Financial Services, Fertilizers, Information Technology enabled Services(ITeS), FMCG and Real Estate. The Board of Directors understand the need of the hour and are determined to further develop the ITeS business, whereby they want better allocation of human resources and provision of industry-best customer services. To achieve the same, they have suggested implementation of specific business strategies but the managers are facing difficulties in allocating the responsibility for implementation of the business strategy amongst them. You being a management expert, indicate the appropriate persons responsible for translating general statements and business strategies pertaining to the ITeS Strategic Business Unit (SBU) and ensure a smooth implantation.
    (a) Corporate level managers (b) Functional level managers
    (c) General level managers (d) Business level managers

18. Dr. Raman has been running a nursing home for about twenty two years now, and has gained enormous name for his benevolence in Balram district of Chhattisgarh.Recently, his daughter, Dr. Radhika completed her medicine degree from the United States of America and returned to her hometown to be a part of her father's practice.She has been given the baton to promote modern medicine and retain the local skilled youth in their practice. However, their nursing home's skilled youth has been more inclined to E-Commerce employment opportunities. Dr. Radhika has taken it asa challenge to imbibe the very essence of service in them, by being employed as nurses and caretakers of the ill. This shall be very crucial in growing the practice as desired. Which of the following phases of Kurt Lewin's Model of Change will be most challenging for Dr. Radhika to strategically positioning her father's nursing home?

(a) Compliance
(b) Identification
(c) Internalization
(d) Transition

19. Aditya Swaroop is the head of operations of Bindal & Sons private limited. He is focussing on total or aggregate management functions in the sense of embracing the integrated activities of a complete department. He assures the resources are obtained and used effectively and efficiently in the accomplishment of the organisation's objectives. He is practicing as:

(a) Strategic control
(b) Management control
(c) Administrative control
(d) Operations control

20. We have heard countless, heart breaking stories from companies that are facing immense pressure on their cash flow due to the economic crisis brought on by the COVID-19 pandemic. To adapt to the changing environment, companies should undertake SWOT analysis. Which of the following is a "Threat" affecting the companies?

(a) Customer are likely to cut back on discretion any expenditure and may move to lower cost rivals
(b) Loss of key staff
(c) Tender for new client
(d) Both a & b

21. A newspaper is planning for the next five years. Which of the following demographic influence(s) should it consider as part of its external environment analysis?

(i) Tax on newspapers
(ii) Import of raw materials will suffer if domestic currency weakens
(iii) Increased mobility around the world requires different language version
(iv) Carbon emissions from the use and products of paper – newspaper

(a) (iii) & (iv)
(b) Only (iii)
(c) Only (iv)
(d) (ii), (iii), (iv)

22. Members of Infinite Care, an NGO, have met and determined that they need to formulate a philosophical basis for their activities. Thereby they have come up with a statement:
"Provide children till age 12, living in homeless or low-income situations, with the essential items they need to thrive – at home, at school and at play" Identify the area of strategic intent, which the members have stated?

(a) Vision
(b) Business definition
(c) Goal and Objective
(d) Mission

23. General public is discerning from buying air conditioning units based on the Health Ministry guidelines regarding emergence of a contagious viral pandemic. Consequently, Nebula Pvt Ltd, a manufacturer of evaporation coils used in air conditioning units has faced significant loss in working capital due to sharp fall in demand. The company conducted financial assessment and developed a workable action plan based on short and long term financial needs. But for immediate needs, an emergency plan has been implemented. It includes selling scrap, asset liquidationand overheads cost reduction. Further, to avoid any such untoward event in future, they plan to diversify into newer business areas along with its core business. Identifythe strategy opted by M/s. Nebula Pvt Ltd?

(a) Retrenchment strategy (b) Liquidation strategy

(c) Turnaround strategy (d) Divestment strategy

[Multiple Choice Questions [15 MCQs of 1 Marks each: Total 15 Marks]

Answer key

1	2	3	4	5	6	7	8	9	10
c	a	a	d	b	a	d	c	a	d
11	12	13	14	15	16	17	18	19	20
a	b	b	c	c	d	b	c	b	d
21	22	23							
b	d	c							

Part II

SECTION - A

1.(a) Following are the data on a capital project being evaluated by the management of X Ltd.:

Particulars	Project M
Annual cost saving	₹ 40,000
Useful life	4 years
I.R.R.	15%
Profitability Index (P.I.)	1.064
Salvage value	0

Discount factor table

Year	15%	14%	13%	12%
1	0.869	0.877	0.885	0.893
2	0.756	0.769	0.783	0.797
3	0.658	0.675	0.693	0.712
4	0.572	0.592	0.613	0.636
Total	2.855	2.913	2.974	3.038

Required:

Find the missing values considering the above table of discount factor only:

NPV? Cost of Capital? Cost of Project? Payback? **(5 Marks)**

Solution

At IRR, Present Value of Cash Outflows = Present Value of Cash Inflows

Hence, cost of Project = 40,000 × 2.855 = 1,14,200

Profitability Index at cost of capital = 1.064

$$1.064 = \frac{\text{Present Value of Cash Inflows at cost of capital}}{1,14,200}$$

Present Value of Cash Inflows at cost of capital = ₹1,21,509

Net Present Value at cost of capital = 1,21,509 -1,14,200 = 7,309

$$\text{Annuity factor at cost of capital (1-4)} = \frac{\text{Present Value of Cash Inflows}}{\text{Annual Cash Inflows}} = \frac{1,21,509}{40,000} \text{-}= 3.038$$

Reference to cumulative annuity table gives us the cost of capital 12%.

$$\text{Payback Period} = \frac{1,14,200}{40,000} = 2.855 \text{ years}$$

1.(b) Kalyanam Ltd. has an operating profit of ₹34,50,000 and has employed Debt which gives total Interest Charge of ₹7,50,000. The firm has an existing Cost of Equity and Cost of Debt as 16% and 8% respectively. The firm has a new proposal before it, which requires funds of ₹75 Lakhs and is expected to bring an additional profit of ₹14,25,000. To finance the proposal, the firm is expecting to issue an additional debt at 8% and will not be issuing any new equity shares in the market. Assume no tax culture.

You are required to CALCULATE the Weighted Average Cost of Capital (WACC) of Kalyanam Ltd.:

(i) Before the new Proposal

(ii) After the new Proposal **(5 Marks)**

Solution

Workings

(a) Value of Debt $= \frac{\text{Interest}}{\text{Cost of debt (K)}}$

$$= \frac{₹\ 7,50,000}{0.8} = ₹93,75,000$$

(b) Value of equity capital $= \frac{\text{Operating profit-Interest}}{\text{Cost of equity } (K_e)}$

$$= \frac{₹\ 34,50,000 - ₹\ 7,50,000}{0.16} = ₹1,68,75,000$$

(c) New Cost of equity (K.) after proposal

$$= \frac{\text{Increased Operating profit-Interest on Increased debt}}{\text{Equity capital}}$$

$$= \frac{(₹34,50,000 + ₹14,25,000)\ (₹7,50,000 + ₹6,00,000)}{₹1,68,75,000}$$

$$= \frac{₹48,75,000 - ₹13,50,000}{₹1,68,75,000} = \frac{₹35,25,000}{₹1,68,75,000} = 0.209 \text{ or } 20.9\%$$

(i) Calculation of Weighted Average Cost of Capital (WACC) before the new proposal

Sources	Amount (₹)	Weight	Cost of Capital	WACC
Equity	1,68,75,000	0.6429	0.160	0.1029
Debt	93,75,000	0.3571	0.080	0.0286
Total	2,62,50,000	1		0.1315 or 13.15%

(ii) Calculation of Weighted Average Cost of Capital (WACC) after the new proposal

Sources	Amount (₹)	Weight	Cost of Capital	WACC
Equity	1,68,75,000	0.5000	0.209	0.1045
Debt	1,68,75,000	0.5000	0.080	0.0400
Total	3,37,50,000	1		0.1445 or 14.45%

1.(c) The following figures have been collected from the annual report of ABC Ltd. for the currentfinancial year:

Net Profit	₹75 lakhs
Outstanding 12% preference shares	₹250 lakhs
No. of equity shares	₹7.50 lakhs
Return on Investment	20%
Cost of capital i.e. (K_e)	16%

(a) COMPUTE the approximate dividend pay-out ratio so as to keep the share price at 42 by using Walter's model?

(b) DETERMINE the optimum dividend pay-out ratio and the price of the share at such pay-out.

(c) PROVE that the dividend pay-out ratio as determined above in (b) is optimum by using random pay-out ratio. **(5 Marks)**

Solution

	Rs. in lakhs
Net Profit	75
Less: Preference dividend	30
Eaming for equity shareholders	45
Earning per share	= 45/ 7.5 = Rs. 6.00

Let, the dividend per share be D to get share price of Rs. 42

$$P = \frac{D + \frac{r}{K_e}(E - D)}{K_e}$$

$$42 = \frac{D + \frac{0.20}{0.16}(6 - D)}{0.16}$$

$$6.27 = \frac{0.16D + 1.2 - 0.20D}{0.16}$$

$$0.04D = 1.2 - 1.0752$$

D = 3.12

$$D/P\,\text{ratio} = \frac{DPS}{EPS} \times 100 = \frac{3.12}{6} \times 100 = 52\%$$

So, the required dividend payout ratio will be = 52%

(b) Since r> K., the optimum dividend pay-out ratio would Zero' (ie D = 0),

Accordingly, value of a share:

$$P = \frac{D + \frac{r}{K_e}(E - D)}{K_e}$$

$$= \frac{0 + \frac{0.20}{0.16}(6 - 0)}{0.16} = \text{Rs}\,46.875$$

(c) The optimality of the above pay-out ratio can be proved by using 25%, 50%, 75% and 100% as pay-out ratio:

At 25% pay-out ratio

$$P = \frac{1.5 + \frac{0.20}{0.16}(6-1.5)}{0.16} = \text{Rs}\,44,531$$

At 50% pay-out ratio

$$P = \frac{4.5 + \frac{0.20}{0.16}(6-3)}{0.16} \text{Rs}\,42.188$$

At 75% pay-out ratio

$$P = \frac{4.5 + \frac{0.20}{0.16}(6-4.5)}{0.16} \text{Rs}\,39.844$$

At 100% pay-out ratio

$$P = \frac{6 + \frac{0.20}{0.16}(6-6)}{0.16} \text{Rs}\,37.50$$

From the above it can be seen that price of share is maximum when dividend pay-out ratio is 'zero' as determined in (b) above.

2. Dharma Ltd, an existing profit-making company, is planning to introduce a new product with a projected life of 8 years. Initial equipment cost will be ₹240 lakhs and additional equipment costing ₹26 lakhs will be needed at the beginning of third year. At the end of 8 years, the original equipment will have resale value equivalent to the cost of removal, but the additional equipment would be sold for 2 lakhs. Working Capital of ₹25 lakhs will be needed at the beginning of the operations. The 100% capacity of the plant is of 4,00,000 units per annum, but the production and sales volume expected are as under:

Year	Capacity (%)
1	20
2	30
3-5	75
6-8	50

A sale price of 100 per unit with a profit volume ratio (contribution/sales) of 60% is likely to be obtained. Fixed operating cash cost are likely to be 16 lakhs per annum. In addition to this the advertisement expenditure will have to be incurred as under:

Year	1	2	3-5	6-8
Expenditure (₹Lakhs each year)	30	15	10	4

The company is subjected to 50% tax rate and consider 12% to be an appropriate cost of capital. Straight line method of depreciation is followed by the company. ADVISE the management on the desirability of the project. **(10 Marks)**

Solution

Calculation of Cash Flow After tax

	Year	1	2	3 to 5	6 to 8
A	Capacity	20%	30%	75%	50%
B	Units	80000	120000	300000	200000
C	Contribution p.u.	60	60	60	60
D	Contribution	48,00,000	72,00,000	1,80,00,000	1,20,00,000
E	Fixed Cash Cost Depreciation	16,00,000	16,00,000	16,00,000	16,00,000
F	Original Equipment (₹240 Lakhs/8)	30,00,000	30,00,000	30,00,000	30,00,000
G	Additional Equipment (₹ 24Lakhs/6)	--	--	4,00,000	4,00,000
H	Advertisement Expenditure	30,00,000	15,00,000	10,00,000	4,00,000
I	Profit Before Tax (D-E-F-G-H)	(28,00,000)	11,00,000	1,20,00,000	66,00,000
J	Tax savings/ (expenditure)	14,00,000	(5,50,000)	(60,00,000)	(33,00,000)
K	Profit	After	Tax	(14,00,000)	5,50,000
L	Add Depreciation (F+G)	30,00,000	30,00,000	34,00,000	34,00,000
M	Cash Flow After Tax	16,00,000	35,50,000	94,00,000	67,00,000

	Particulars	Cash Flows	PV factor	PV
0	Initial Investment	(2,40,00,000)	1.000	(2,40,00,000)
0	Working Capital Introduced	(25,00,000)	1.000	(25,00,000)
1	CFAT	16,00,000	0.893	14,28,800
2	CFAT	35,50,000	0.797	28,29,350
2	Additional Equipment	(26,00,000)	0.797	(20,72,200)
3	CFAT	94,00,000	0.712	66,92,800
4	CFAT	94,00,000	0.636	59,78,400
5	CFAT	94,00,000	0.567	53,29,800
6	CFAT	67,00,000	0.507	33,96,900
7	CFAT	67,00,000	0.452	30,28,400
8	CFAT	67,00,000	0.404	27,06,800
8	WC Released	25,00,000	0.404	10,10,000
8	Salvage Value	2,00,000	0.404	80,800
	Net Present Value			39,09,850

Since the NPV is positive, the proposed project should be implemented.

3.(a) FM Ltd. is in a competitive market where every company offers credit. To maintain the competition, FM Ltd. sold all its goods on credit and simultaneously received the goods on credit. The company provides the following information relating to current financial year.

Debtors Velocity	3 months
Creditors Velocity	2 months
Stock Turnover Ratio (on Cost of Goods Sold)	1.5

Fixed Assets turnover Ratio (on Cost of Goods Sold)	4
Gross Profit Ratio	25%
Bills Receivables	₹75,000
Bills Payables	₹30,000
Gross Profit	₹12,00,000

FM Ltd. has the tendency of maintaining extra stock of 30,000 at the end of the period than that at the beginning.

DETERMINE:

(i) Sales and cost of goods sold

(ii) Sundry Debtors

(iii) Closing Stock

(iv) Sundry Creditors

(v) Fixed Assets **(5 Marks)**

Solution

(i) Determination of Sales and Cost of goods sold:

$$\text{Gross Profit Ratio} = \frac{\text{Gross Profit}}{\text{Sales}} \times 100$$

$$\text{Or} \quad \frac{25}{100} = \frac{12,00,000}{\text{Sales}}$$

$$\text{Or, Sales} = \frac{12,00,00,000}{25} = ₹48,00,000$$

Cost of Goods Sold = Sales - Gross Profit

= ₹48,00,000-₹12,00,000 = ₹36,00,000

(ii) Determination of Sundry Debtors:

Debtors' velocity is 3 months or Debtors' collection period is 3 months,

$$\text{So, Debtors' turnover ratio} = \frac{12\text{months}}{3\text{months}} = 4$$

$$\text{Debtors' turnover ratio} = \frac{\text{Credit Sales}}{\text{Average Accounts Receivable}}$$

$$= \frac{₹48,00,000}{\text{Bills Recievable + Sundry Debtors}}$$

Or, Sundry Debtors + Bills receivable = ₹12.00.000

(iii) Determination of Closing Stock

$$\text{Stock Turnover Ratio} = \frac{\text{Cost of Goods sold}}{\text{Average Stock}} = \frac{₹36,000}{\text{Average Stock}} = 1.5$$

So, Average Stock = 24,00,000

Now Average Stock = $\frac{\text{Opening stock + Closing stock}}{2}$

Or $\frac{\text{Opening stock + (Opening Stock + ₹30,000)}}{2}$ = ₹24,00,000

Or 2 Opening Stock + ₹30,000= ₹48,00,000

Or 2 Opening Stock = ₹47,70,000

Or, Opening Stock = ₹23,85,000

So, Closing Stock = ₹23,85,000+₹30,000 = ₹24,15,000

(iv) Determination of Sundry Creditors:

Creditors' velocity of 2 months or credit payment period is 2 months.

So, Creditors' turnover ratio $= \frac{12\text{ months}}{2\text{ months}} = 6$

Creditors turnover ratio $= \frac{\text{credit purchases*}}{\text{Average Accounts Payble}}$

$= \frac{₹36,30,000}{\text{Sundry Creditors + Bills Payble}}$

So, Sundry Creditors + Bills Payable = ₹6,05,000

Or, Sundry Creditors + ₹30,000 = ₹6,05,000

Or, Sundry Creditors = ₹5,75,000

(v) Determination of Fixed Assets

Fixed Assets Turnover Ratio = $\frac{\text{Cost of goods sold}}{\text{Fixed Assets}} = 4$

Or, $\frac{₹36,00,000}{\text{Fixed Assets}} = 4$

Or, Fixed asset =9,00,000

Workings:

*Calculation of Credit purchases:

Cost of goods sold = Opening stock + Purchases - Closing stock ₹36,00,000 =₹ 23,85,000 + Purchases - ₹24,15,000 Purchases (credit) = ₹36,30,000

Calculation of credit purchase also can be done as below:

Or Credit Purchases = Cost of goods sold + Difference in Opening Stock

Or Credit Purchases =36,00,000+30,000=₹36,30,000

3.(b) Explain 2 advantages & Disadvantages of raising funds by issue of debentures. **(3 Marks)**

Solution

Advantages of raising finance by issue of debentures are:

(i) The cost of debentures is much lower than the cost of preference or equity capital as the interest is tax-deductible. Also, investors consider debenture investment safer than equity or preferred investment and, hence, may require a lower return on debenture investment.

(ii) Debenture financing does not result in dilution of control.

(iii) In a period of rising prices, debenture issue is advantageous. The fixed monetary outgo decreases in real terms as the price level increases. In other words, the company has to pay a fixed rate of interest.

Disadvantages of debenture financing are:

(i) Debenture interest and the repayment of its principal amount is an obligatory payment.

(ii) The protective covenants associated with a debenture issue may be restrictive.

(iii) Debenture financing enhances the financial risk associated with the firm because of the reasons given in point (i).

(iv) Since debentures need to be paid at the time of maturity, a large amount of cash outflow is needed at that time.

3.(c) What are remedies of over-capitalization **(2 Marks)**

Solution

Remedies for Over-Capitalisation:

Following steps may be adopted to avoid the negative consequences of over-capitalisation:

(i) Company should go for thorough reorganization.

(ii) Buyback of shares.

(iii) Reduction in claims of debenture-holders and creditors.

(iv) Value of shares may also be reduced. This will result in sufficient funds for the company to carry out replacement of assets.

4.(a) The agency problem is one of the key concepts in corporate governance and financial management. On the light of this statement, EXPLAIN agency problem, consequences of agency problem and how to overcome the issue. **(4 Marks)**

Solution

Though in a sole proprietorship firm, partnership etc., owners participate in management but in corporates, owners are not active in management so, there is a separation between owner/shareholders and managers. In theory managers should act in the best interest of shareholders however in reality, managers may try to maximise their individual goal like salary, perks etc., so there is a principal agent relationship between managers and owners, which is known as Agency Problem. In a nutshell, Agency Problem is the chances that managers may place personal goals ahead of the goal of owners. Agency Problem leads to Agency Cost. Agency cost is the additional cost borne by the shareholders to monitor the manager and control their behaviour so as to maximise shareholders wealth. Generally, Agency Costs are of four types (i) monitoring (ii) bonding (iii) opportunity (iv) structuring.

Addressing the agency problem

The agency problem arises if manager's interests are not aligned to the interests of the debt lender and equity investors. The agency problem of debt lender would be addressed by imposing negative covenants i.e. the managers cannot borrow beyond a point. This is one of the most important concepts of modern day finance and the application of this would be applied in the Credit Risk Management of Bank, Fund Raising, Valuing distressed companies.

Agency problem between the managers and shareholders can be addressed if the interests of the managers are aligned to the interests of the share- holders. It is easier said than done.

However, following efforts have been made to address these issues:

- Managerial compensation is linked to profit of the company to some extent and also with the long term objectives of the company.
- Employee is also designed to address the issue with the underlying assumption that maximisation of the stock price is the objective of the investors.
- Effecting monitoring can be done.

4.(b) Operating leases and financial leases are traditionally the most importan types of leases in financial management. However, in recent years, othe types of leases have also gained significance due to their unique benefits and applications. IDENTIFY AND EXPLAIN at least four other types o leases that have become increasingly important in modern business practices. **(4 Marks)**

Solution

(i) Sales and Lease Back: Under this type of lease, the owner of an asset sells the asset to a party (the buyer), who in turn leases back the same asset to the owner in consideration of a lease rentals. Under this arrangement, the asset is not physically exchanged but it all happen in records only. The main advantage of this method is that the lessee can satisfy himself completely regarding the quality of an asset and after possession of the asset convert the sale into a lease agreement. Under this transaction, the seller assumes the role of lessee (as the same asset which he has sold came back to him in the form of lease) and the buyer assumes the role of a lessor (as asset purchased by him was leased back to the seller). So, the seller gets the agreed selling price and the buyer gets the lease rentals.

(ii) Leveraged Lease: Under this lease, a third party is involved besides lessor and the lessee. The lessor borrows a part of the purchase cost (say 80%) of the asset from the third party i.e., lender and asset so purchased is held as security against the loan. The lender is paid off from the lease rentals directly by the lessee and the surplus after meeting the claims of the lender goes to the lessor. The lessor is entitled to claim depreciation allowance.

(iii) Sales-aid Lease: Under this lease contract, the lessor enters into a tie up with a manufacturer for marketing the latter's product through his own leasing operations, it is called a sales-aid lease. In consideration of the aid in sales, the manufacturer may grant either credit or a commission to the lessor. Thus, the lessor earns from both sources i.e. From lessee as well as the manufacturer.

(iv) Close-ended and Open-ended Leases: In the close-ended lease, the assets get transferred to the lessor at the end of lease, the risk of obsolescence, residual value etc., remain with the lessor being the legal owner of the asset. In the open-ended lease, the lessee has the option of purchasing the asset at the end of the lease period.

4(c) EXPLAIN the Relationship between EBIT-EPS-MPS **(2 Marks)**

Solution

The basic objective of financial management is to design an appropriate capital structure which can provide the highest wealth, i.e., highest MPS, which in turn depends on EPS.

Given a level of EBIT, EPS will be different under different financing mix depending upon the extent of debt financing. The effect of leverage on the EPS emerges because of the existence of fixed financial charge i.e., interest on debt, financial fixed dividend on preference share capital.

The effect of fixed financial charge on the EPS depends upon the relationship between the rate of return on assets and the rate of fixed charge. If the rate of return on assets is higher than the cost of financing, then the increasing use of fixed charge financing (i.e., debt and preference share capital) will result in increase in the EPS. This situation is also known as favourable financial leverage or Trading on Equity. On the other hand, if the rate of return on assets is less than the cost of financing, then the effect may be negative and, therefore, the increasing use of debt and preference share capital may reduce the EPS of the firm.

The fixed financial charge financing may further be analysed with reference to the choice between the debt financing and the issue of preference shares. Theoretically, the choice is tilted in favour of debt financing for two reasons: (i) the explicit cost of debt financing i.e., the rate of interest payable on debt instruments or loans is generally lower than the rate of fixed dividend payable on preference shares, and (ii) interest on debt financing is tax-deductible and therefore the real cost (after-tax) is lower than the cost of preference share capital.

OR

4.(c) EXPLAIN Financial Leverage as a 'Double edged Sword' **(2 Marks)**

Solution

When the cost of 'fixed cost fund' is less than the return on investment, financial leverage will help to increase return on equity and EPS. The firm will also benefit from the saving of tax on interest on debts etc. However, when cost of debt will be more than the return it will affect return of equity and EPS unfavourably and as a result firm can be under financial distress. Therefore, financial leverage is also known as "double edged sword".

Effect on EPS and ROE:

When, ROI > Interest - Favourable - Advantage

When, ROI < Interest - Unfavourable - Disadvantage

When, ROI = Interest - Neutral - Neither advantage nor disadvantage

SECTION - B

5.(a) OMTECH Solutions, a large electronics manufacturing firm, has been in the smart thermostat sensor market for 50 years. When they entered the market, their production cost per unit was 150. Over time, with consistent manufacturing, process improvements, and employee training, the cost has dropped to 95 per unit, even though the product specifications have remained largely unchanged.

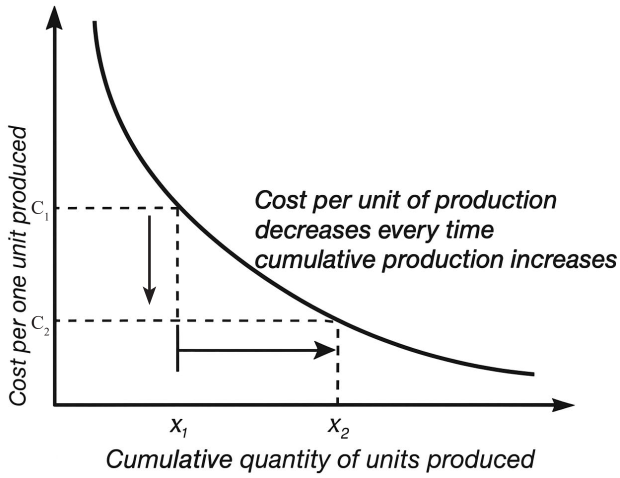
Management attributes this cost reduction to process improvement, learning effects, operational efficiencies and scale over the years.

Recently, a new competitor has entered the market with a slightly lower price point. The management at OMTECH is considering whether to reduce their price further or focus on enhancing product features to maintain their market share.

Required:

- Analyze OMTECH's strategies over time and state that which one of the strategic options has helped them reduce the cost significantly?
- How does this strategic option available to OMTECH benefit it to deal with the new competitor? **(5 Marks)**

Solution



Synopsis:

OMTECH Solutions has operated in the smart thermostat sensor market for 50 years. Over this long period, their unit production cost decreased from ₹150 to ₹95-a significant reduction.

The management attributes this cost decline to:

- Learning effects
- Operational efficiencies
- Scale of production

Decision:

These are all core components of the experience curve theory.

As a firm gains more experience in producing a product, the cost per unit declines due to cumulative learning and efficiency gains.

This is based on the idea that every time cumulative production doubles, costs typically decline by a constant percentage. These strategies are long-term and build sustainable cost leadership over time.

Now that a new competitor has entered the market with a slightly lower price, OMTECH is evaluating whether to reduce prices further to stay competitive or focus on differentiation.

Strategic Benefit in Dealing with the New Competitor

1. Cost Advantage: OMTECH can afford to reduce prices without hurting profitability because its unit cost is already low (195), thanks to decades of experience. The competitor, being new, likely has higher costs and cannot sustain low pricing for long.
2. Pricing Flexibility: OMTECH can match or slightly undercut the competitor's price temporarily to retain customers without sacrificing märgin, effectively using price as a competitive weapon.
3. Investment Leverage: Savings from lower production costs can be reinvested in Product innovation or added features, Marketing campaigns and Customer service improvements.
4. This could help OMTECH adopt a dual strategy: Maintain price competitiveness while also enhancing product value.

5. Barrier to Entry: The steep cost advantage serves as a barrier for new entrants, who may not survive price wars without similar cost structures.

5.(b) You are a business analyst for a leading online food delivery platform, Bhookhads.com that operates in several metropolitan cities and has seen steady growth over the past five years. Recently, a few local tech startups have launched hyper-local food delivery apps focusing on specific neighbourhoods, offering faster delivery and lower commission rates to restaurants. These startups are using cost-effective online distribution and influencer marketing to quickly build a customer base, reducing customer loyalty to existing brands Swiggy, Zomato, Uber Eats, DoorDash, etc.

Required:

- As a business analyst, which tool of business analysis to identifying and understanding the competition will you use?
- Evaluate the kind of threat that is actively affecting firms in this industry.
- Recommend 4 ways Bhookhads.com could respond to maintain its competitive edge.

(5 Marks)

Solution

Synopsis:

To be written by the students as discussed in the class.

Decision:

1. Based on the above synopsis and as a business analyst of bhookhads.Com, i will use the tool "competitive landscape" to identifying and understanding the competition.
   - Competitive landscape is a business analysis or a competition analysis which identifies competitors, either direct or indirect.
   - This is about identifying and understanding the competition and at the same time, it permits the comprehension of their mission, vision, core values, niche market, strengths and weaknesses.
   - This also involves an application of "competitive intelligence".

Steps to understand the competitive landscape:

1. Identify the competitor
2. Understand the competitors
3. Determine the strengths of the competitors
4. Determine the weaknesses of the competitors
5. Put all of the information together

2. By launching hyper-local food delivery apps focusing on specific neighbourhoods, offering faster delivery and lower commission rates to restaurants, the new local tech startups are using cost-effective online distribution and influencer marketing to quickly build a customer base, reducing

customer loyalty for bhookhads.Com.

- The kind of threat that is actively affecting bhookhads.Com is "threat of new entrants".
- New entrants are always a powerful source of competition within the industry.
- The new capacity, innovations and product range they bring in throw up new competitive pressure within the industry.
- And the bigger the new entrant, the more severe the competitive effect.
- New entrants also place a limit on prices and affect the profitability of bhookhads.Com.

3. Recommended strategies to deal with the threat from new entrants by creating entry barriers:

- Product differentiation: production differentiation refers to the physical or perceptual differences, or
- Enhancements, that make a product special or unique in the eyes of customers. Differentiation works to reinforce entry barriers because the cost of creating genuine product differences may be too high for the new entrants.
- Switching costs: to succeed in an industry, new entrant must be able to persuade existing customers of
- Other companies to switch to its products. To make a switch, buyers may need to test a new firm's product, negotiate new purchase contracts, and train personnel to use the equipment, or modify facilities for product use. Buyers often incur substantial financial (and psychological) costs in switching between firms. When such switching costs are high, buyers are often reluctant to change.
- Brand identity: the brand identity of products or services offered by bhookhads.Com can serve as another entry barrier. New entrants often encounter significant difficulties in building up the brand identity, because to do so they must commit substantial resources over a long period.
- Possibility of aggressive retaliation: the mere threat of aggressive retaliation by incumbents creates entry barrier.

5.(c) Glassware Ltd. is about to go through a significant restructuring. The strategic change involves moving from a decentralized to a centralized structure. This will help Glassware avoid duplication of support activities and lower its costs. The management have held the first staff briefing in which they went to great lengths to explain that the change was necessary to equip the company to face future competitive challenges. Identify and explain the current stage of Glassware Ltd. from the Lewin's three-stage model of change? **(5 Marks)**

Solution

Glassware Ltd. is currently in the,unfreezing" stage, where management is attempting to explain the need for change in an attempt to maximize buy-in by employees and reduce the amount of resistance.

Unfreezing the situation: The process of unfreezing simply makes the individuals aware of the necessity for change and prepares them for such a change. Lewin proposes that the changes should not come as a surprise to the members of the organization. Sudden and unannounced change would be socially destructive and morale lowering. The management must pave the way for the change by first "unfreezing the situation", so that members would be willing and ready to accept the change. Unfreezing is the process of breaking down the old attitudes and behaviours, customs and traditions so that they start with a clean slate. This can be achieved by making announcements, holding meetings and promoting the new ideas throughout the organization.

6.(a) Name different types of Business level Strategies and also explain purpose of it. Howbest Cost provider Strategy can be achieved. **(5 Marks)**

Solution

Ans: According to Porter, strategies allow organizations to gain competitive advantage from three different bases: cost leadership, differentiation, and focus. Porter called these base generic strategies. These strategies have been termed generic, because they can be pursued by any type or size of business firm and even by not-for-profit organisations.

- Cost leadership emphasizes on producing standardized products at a very low per-unit cost for consumers who are price-sensitive.
- Differentiation is a strategy aimed at producing products and services considered unique industry-wide and directed at consumers who are relatively price-insensitive.
- Focus means producing products and services that fulfil the needs of small groups of consumers with very specific taste.

Best-cost provider strategy involves providing customers more value for the money by emphasizing on lower cost and better-quality differences. It can be done through:

(a) offering products at lower price than what is being offered by rivals for products with comparable quality and features

Or

(b) charging similar price as by the rivals for products with much higher quality and better features.

6.(b) A strategic leader is a change agent to initiate strategic changes in the organization and ensure changes are successfully implemented for this they have various leadership roles. Highlight them. **(5 Marks)**

Solution

Managers have five leadership roles to play in pushing for good strategy execution:

1. Staying on top of what is happening, closely monitoring progress, solving out issues, and learning what obstacles lie in the path of good execution.
2. Promoting a culture of esprit de corps that mobilizes and energizes organizational members to execute strategy in a competent fashion and perform at a high level.
3. Keeping the organization responsive to changing conditions, alert for new opportunities, bubbling with innovative ideas, and ahead of rivals in developing competitively valuable competencies and capabilities.
4. Exercising ethical leadership and insisting that the company conduct its affairs like a model corporate citizen.
5. Pushing corrective actions to improve strategy execution and overall strategic performance.

7.(a) Racers Ltd. manufactures bicycles. Until recently it has adopted a differentiation strategy, offering high quality bicycles which Racers Ltd. sells at a high profit margin. In recent years, Racers Ltd. has entered a period of decline due to the market becoming flooded with cheaper, high quality bicycles from abroad, where labourcosts are lower. Racers Ltd. has therefore decided to adjust its strategy and adopt a focus approach, targeting its bicycles towards professional athletes. This will allow Racers Ltd. to continue earning high margins, though the size of its potential market will likely fall.Identify and explain the need of adopting this strategy by Racers Ltd. to manage decline?

(5 Marks)

Solution

Racers Ltd. has adopted Turnaround strategy. This involves Racers Ltd. repositioning itself in the market in an attempt to once again gain competitive advantage. Turnaround is needed when an enterprise's performance deteriorates to a point that it needs a radical change of direction in strategy, and possibly in structure and culture as well. It is a highly targeted effort to return an organization to profitability and increase positive cash flows to a sufficient level. It is used when both threats and weaknesses adversely affect the health of an organization so much that its basic survival is difficult.

The overall goal of turnaround strategy is to return an underperforming or distressed company to normalcy in terms of acceptable levels of profitability, solvency, liquidity and cash flow. To achieve its objectives, turnaround strategy must reverse causes of distress, resolve the financial crisis, achieve a rapid improvement in financial performance, regain stakeholder support, and overcome internal constraints and unfavourable industry characteristics.

7.(b) XYZ Ltd., is engaged in manufacturing business. One of corporate is of view that entity's resources are of no value unless deployed into activities & organized into system & routines which ensure that products or services are produced which are valued by final consumer/user. Mr. N, CFO of Entity, argued that understanding of strategic capability must start with an identification of these separate value activities. As a strategist, guide them with various primary activities for providing high valued products/services to users. **(5 Marks)**

Solution

The primary activities of the organization are grouped into five main areas: inbound logistics, operations, outbound logistics, marketing and sales, and service.

- Inbound logistics are the activities concerned with receiving, storing and distributing the inputs to the product/service. This includes materials handling, stock control, transport etc. Like, transportation and warehousing.
- Operations transform these inputs into the final product or service: machining, packaging, assembly, testing, etc. convert raw materials in finished goods.
- Outbound logistics collect, store and distribute the product to customers. For tangible products this would be warehousing, materials handling, transport, etc. In the case of services, it may be more concerned with arrangements for bringing customers to the service, if it is a fixed location (e.g. sports events).
- Marketing and sales provide the means whereby consumers/users are made aware of the product/ service and are able to purchase it. This would include sales administration, advertising, selling and so on. In public services, communication networks which help users" access a particular service are often important.
- Service are all those activities, which enhance or maintain the value of a product/service, such as installation, repair, training and spares.

8.(a) Companies achieving superior performance relative to rivals is ultimate challenge. If a company's strategies result in superior performance, then its called Competitive Advantage. But it is more difficult to retain this advantage than achieving.

Explain the role of resources & capabilities in same scenario. **(5 Marks)**

Solution

The sustainability of competitive advantage and a firm's ability to earn profits from its competitive advantage depends upon four major characteristics of resources and capabilities:

i. Durability: The period over which a competitive advantage is sustained depends in part on the rate at which a firm's resources and capabilities deteriorate. In industries where the rate of product innovation is fast, product patents are quite likely to become obsolete. Similarly, capabilities which are the result of the management expertise of the CEO are also vulnerable to his or her retirement or departure. On the other hand, many consumer brand names have a highly durable appeal.

ii. Transferability: Even if the resources and capabilities on which a competitive advantage is based are durable, it is likely to be eroded by competition from rivals. The ability of rivals to attack position of competitive advantage relies on their gaining access to the necessary resources and capabilities. The easier it is to transfer resources and capabilities between companies, the less sustainable will be the competitive advantage which is based on them.

iii. Imitability: If resources and capabilities cannot be purchased by a would-be imitator, then they must be built from scratch. How easily and quickly can the competitors build the resources and capabilities on which a firm's competitive advantage is based? This is the true test of imitability. For example, In financial services, innovations lack legal protection and are easily copied. Here again the complexity of many organizational capabilities can provide a degree of competitive defense. Where capabilities require networks of organizational routines, whose effectiveness depends on the corporate culture, imitation is difficult.

iv. Appropriability: Appropriability refers to the ability of the firm's owners to appropriate the returns on its resource base. Even where resources and capabilities are capable of offering sustainable advantage, thereis an issue as to who receives the returns on these resources. This means, that rewards are directed to from where the funds were invested, rather than creating an advantage with no actual reward to people to invested capital.

8(b) Write a short note on product life cycle. **(5 Marks)**

Solution

PLC is an S-shaped curve which exhibits the relationship of sales with respect of time for a product that passes through the four successive stages of introduction, growth, maturity and decline. If businesses are substituted for product, the concept of PLC could work just as well.

The first stage of PLC is the introduction stage with slow sales growth, in which competition is almost negligible, prices are relatively high, and markets are limited. The growth in sales is at a lower rate because of lack of awareness on the part of customers. The second phase of PLC is growth stage with rapid market acceptance. In the growth stage, the demand expands rapidly, prices fall, competition increases, and market expands. The customer has knowledge about the product and shows interest in purchasing it. The third phase of PLC is maturity stage where there is slowdown in growth rate. In this stage, the competition gets tough, and market gets stablised. Profit comes down because of stiff competition. At this stage, organisations have to work for maintaining stability.

In the fourth stage of PLC is declines with sharp downward drift in sales. The sales and profits fall down sharply due to some new product replaces the existing product. So, a combination of strategies can be implemented to stay in the market either by diversification or retrenchment.