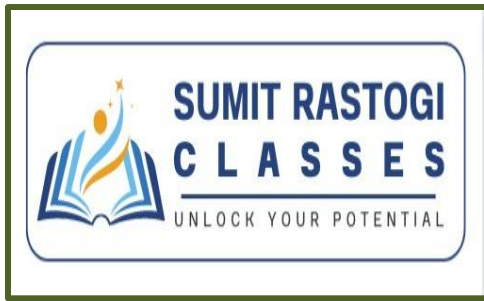




To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

FM & BDA
(TEST PAPER – 03)

(CHAPTERS COVERED – LEVERAGE, EBIT-EPS ANALYSIS, DIVIDEND POLICY & CAPITAL STRUCTURE THEORY)

Time Allowed: 3 Hours

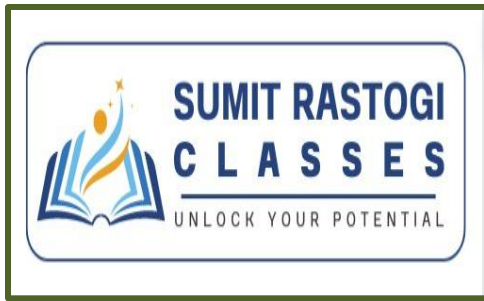
Full Marks: 100

Section A contains Question Number 1. All parts of this question are compulsory.

Working notes should form part of the relevant answer.

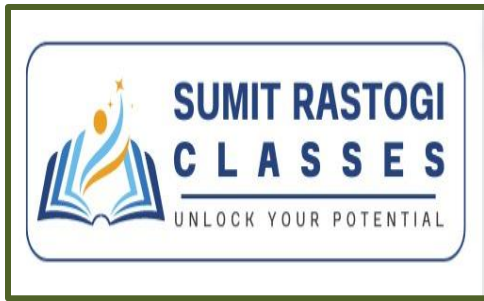
SECTION – A

1. Choose the correct answer from the given alternatives (you may write only the Roman number and the alphabet of your answer. (2×15=30 Marks)
- (i) According to Net Income approach, greater the proportion of debt capital, __ shall be the overall cost of capital.
(A) Equal
(B) Lower
(C) Higher
(D) None of the above.
- (ii) UBI Ltd has EBIT of ₹1,00,000. The Company makes use of Debt and Equity Capital. The Company has 10% debentures of ₹4,00,000. If the Company's equity capitalization rate is 15% What will be the value of UBI Ltd?
(A) ₹6,00,000
(B) ₹8,00,000
(C) ₹7,00,000
(D) ₹4,00,000
- (iii) X Ltd. and Y Ltd. are identical in every respect except that X Ltd. does not employ Debt in its capital structure whereas Y Ltd. employs 10% Debentures amounting to ₹4 Lakhs. EBIT is ₹2,40,000. Equity Capitalization Rate of X Ltd. is 20%. Tax Rate 25%. Assuming that all assumptions of M-M model are met. Which of the following is false?
(A) K of Y Ltd. = 18% and K of X Ltd. = 20%
(B) None of the above
(C) Value of X Ltd. ₹9,00,000 and Value of Y Ltd. = ₹10,00,000
(D) K of Y Ltd. = 25%



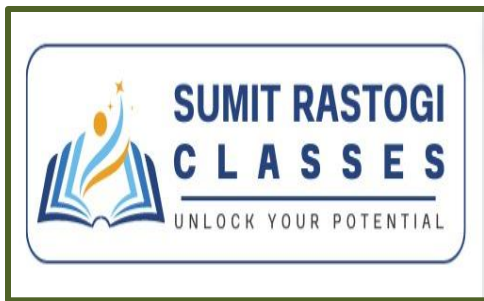
To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

- (iv) Which among the following is not an assumption of the Net Income Approach?
- (A) Debt Capitalisation Rate is equal to Equity Capitalisation Rate
 - (B) Value of the firm does not remain the same
 - (C) No Corporate Taxes
 - (D) No Change in Risk Perception
- (v) Given that Sales = ₹50,000, Variable Cost = 60%, Fixed Cost = ₹12,000, the Operating Leverage will be:
- (A) 5.2
 - (B) 2.5
 - (C) 2.2
 - (D) 2.0
- (vi) IF EBIT ₹1,00,000, Fixed Assets = ₹2,00,000, Sales = ₹10,00,000 and Variable Cost = ₹7,00,000. Then, the Operating Leverage will be:
- (A) 6
 - (B) 4
 - (C) 2
 - (D) 3
- (vii) The degree of operating Leverage and degree of financial Leverage of VIM Ltd. are 2 and 1.5 respectively. If the Sale increases by 10%, what will be the percentage change in EPS?
- (A) 10% increase
 - (B) 30% increase
 - (C) 15% increase
 - (D) None of these
- (viii) EBIT-EPS chart is used for which of the following purpose?
- (A) Getting EPS levels for varying levels of EBIT
 - (B) Impact of sales on EBIT
 - (C) Determining the Price-Earnings ratio
 - (D) Showing changes of EPS overtime
- (ix) If the Fixed Cost is 50% of EBIT, then Operating Leverage would be:
- (A) 1.5
 - (B) 2
 - (C) 3.5
 - (D) 3



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

- (x) Which one of the following activities is outside the purview of the dividend decision in financial management?
- (A) Deciding on the pay-out ratio
 - (B) Considering the issue of bonus shares to equity shareholders.
 - (C) Identification of the profit after taxes
 - (D) Measurement of the cost of funds
- (xi) The earnings of a company = ₹5,00,000. Dividend payout ratio is 60%. The number of shares outstanding = 1,50,000. Equity capitalization rate = 11% and rate of return on investment = 16%. Calculate the market value of the share as per Walter's model.
- (A) ₹ 42
 - (B) ₹37
 - (C) ₹35.71
 - (D) ₹ 42.50
- (xii) The 'Dividend-Payout Ratio' is equal to:
- (A) The Dividend yield plus the capital gains yield
 - (B) Dividends per share divided by Earning per Equity Share
 - (C) Dividends per share divided by par value per share
 - (D) Dividends per share divided by the current price per share.
- (xiii) What should be the optimum Dividend payout ratio, when $r = 12\%$ and $K_e = 10\%$?
- (A) 50%
 - (B) 12%
 - (C) 100%
 - (D) Zero
- (xiv) At Indifference level of EBIT, different capitals have:
- (A) Same PBT
 - (B) Same EBIT
 - (C) Same PAT
 - (D) Same EPS
- (xv) A firm earns a contribution of ₹ 4,80,000. Its operating leverage and financial leverage are respectively 4 and 5. Find the firm's PAT if the effective tax rate is 25%.
- (A) ₹18,000
 - (B) ₹28,000
 - (C) ₹15,000
 - (D) ₹30,000



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

SECTION – B

Answer any five questions from question number 2 to 8.

14×5=70

2 (a) Calculate the operating leverage and financial leverage under situations A, B and C and financial plans I, II and III respectively from the following information relating to the operating and capital structure of ABC Co. Also find out the combination of leverages which give the highest value and the least value.

Installed capacity	1,200 units
Actual production and sales	800 units
Selling price per unit	₹15
Variable cost per unit	₹10
Fixed Cost:	
Situation A	₹1,000
Situation B	₹2,000
Situation C	₹3,000

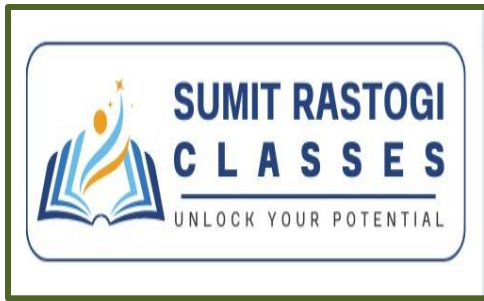
Capital Structure	Financial Plan		
	I	II	III
Equity	5,000	7,500	2,500
Debt	5,000	2,500	7,500
Cost of Debt	12%	12%	12%

(7 marks)

2 (b) A company has earnings of ₹5,00,000. The capital structure of the company has debt and equity in which debt of ₹8,00,000 is borrowed at 10%. The cost of equity capital is currently 12.5%.

Calculate the Value of The Firm and Overall Cost of Capital by the Net Income Approach. Ignore taxes. Take market value of debt at par.

(7 marks)



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

3 (a) Following are the details regarding two companies A Ltd. and B Ltd.:

Details	A Ltd.	B Ltd
IRR	15%	5%
Cost of Equity Capital	10%	10%
EPS	₹8	₹8

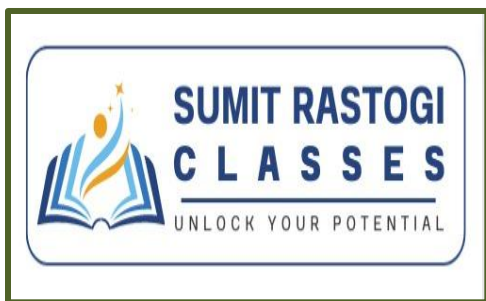
Calculate the value of an equity share of each of these companies according to Walter's model when dividend payout ratio is 75%. What should be each company's strategy to maximize the market value of its share?

(7 marks)

3 (b) M/s. Light & Sound Co. Ltd. has sales of ₹12,00,000, variable cost ₹9,00,000 and fixed cost is ₹2,00,000 and debt of ₹5,00,000 of 10% rate of interest. From the above details find out the Operating, Financial and Combined Leverages. If the Co. wants to double its Earnings Before Interest and Tax (EBIT).

How much of a rise in sales would be needed on a percentage basis?

(7 marks)



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

4 (a) Companies X, Y and Z Ltd. have the following information with a common expectation of 15% return on investment.

Details	X Ltd.	Y Ltd.	Z Ltd.
EBIT (₹)	20,00,000	20,00,000	20,00,000
No. of Equity Shares	3,00,000	2,50,000	2,50,000
12% Debentures	-	15,00,000	18,00,000

Find the value of each firm and the value per equity share for each firm under the Modigliani-Miller Approach for each of the following situations:

- (i) Assuming there are no taxes.
- (ii) Assuming 50% tax rate.

(7 marks)

4 (b) NESTINO LTD. had the following Balance Sheet as on March 31, 2019:

Liabilities	₹ in crores	Assets	₹ in crores
Equity Share Capital	10	Fixed Assets	25
Retained Earnings	2	Current Assets	15
15% Debentures	20		
Current Liabilities	8		
	40		40

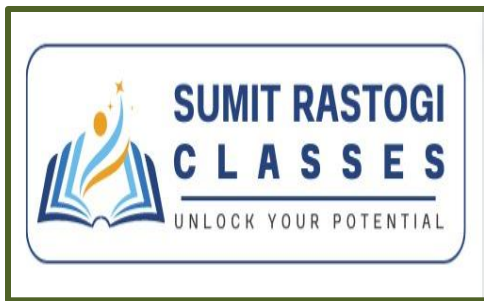
The additional information given is as under:

Fixed Costs Per Annum (Exclusive Interest):	₹8 Crores
Variable Operating Cost Ratio:	65%
Total Assets Turnover Ratio:	2.5
Income Tax Rate:	40%

Required: Calculate the following:

- (i) Earnings Per Share
- (ii) Operating Leverage
- (iii) Financial Leverage
- (iv) Combined Leverage

(7 marks)



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

5 (a) The capital structure of a company consists of equity share capital of ₹ 10,00,000 (shares of ₹100 each) and ₹ 10,00,000 of 10% Debentures. The selling price is ₹ 10 per unit; variable cost is ₹ 6 per unit and fixed expenses ₹2,00,000. The income-tax rate is assumed to be 35%. The sales level is expected to increase from 1,00,000 units to 1,20,000 units.

a) You are required to calculate –

- (i) The % increase in EPS.
- (ii) DFL at 1,00,000 and 1,20,000 units.
- (iii) DOL at 1,00,000 and 1,20,000 units.

b) Comment on the behaviour of Operating and Financial Leverage in relation to increase in production from 1,00,000 units to 1,20,000 units.

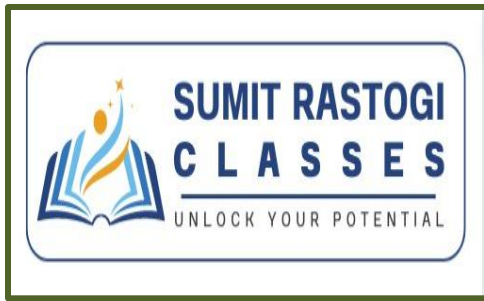
(7 marks)

5 (b) Company A reports the following information from its financial statements.

	₹
Sales	8,00,000
Less: Variable cost	<u>2,40,000</u>
Contribution	5,60,000
Less: Fixed Cost	<u>4,00,000</u>
EBIT	1,60,000
Less: Interest	<u>20,000</u>
Profit before Tax	1,40,000

- (i) Using concept of financial leverage, by what percentage will the taxable income increase, if EBIT increases by 10%? Verify the results in terms of Rupees.
- (ii) Using the concept of operating leverage, by what percentage will EBIT increase if there is 10% increase in sales? Verify the results in terms of Rupees.

(7 marks)



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

6 (a) HILSON LTD. was started a year back with equity capital of ₹40 lakhs. The other details are as under:

Earnings of the company	₹4,00,000
Price Earnings ratio	12.5
Dividend paid	₹3,20,000
Number of Shares	40,000

Required:

- (i) Find the Current Market price of the share, and
(ii) Find whether the Company's D/P ratio is optimal – using Walter's model.

(7 marks)

6 (b) Paramount Products Ltd. wants to raise ₹ 100 lacs for a diversification project. Current estimates of Earnings Before interest and taxes (EBIT) from the new projects is ₹ 22 lacs per annum.

Cost of debt will be 15% for amounts up to and including ₹ 40 lacs, 16% for additional amounts up to and including ₹ 50 lacs and 18% for additional amounts above ₹ 50 lacs.

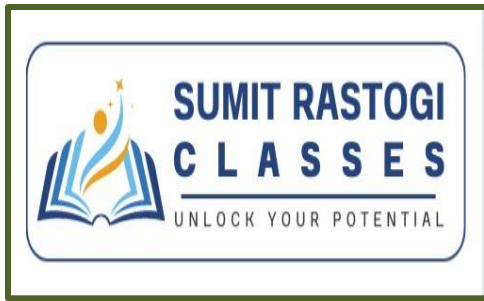
The equity shares (face value ₹ 10) of the company have a current market value of ₹ 40. This is expected to fall to ₹ 32 if debts exceeding ₹ 50 lacs are raised.

The following options are under consideration of the company:

<i>Option</i>	<i>Equity</i>	<i>Debt</i>
I	50%	50%
II	60%	40%
III	40%	60%

Determine the Earnings Per Share (EPS.) for each option and state which option the company should exercise. Tax rate applicable to the company is 50%.

(7 marks)



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

7 (a) SL Ltd. provides you with the following information:

Equity Share Capital (₹50 each)	₹100 lakhs
12% Preference Share Capital	₹50 lakhs
10% Debentures	₹50 lakhs
Return on Capital Employed	18.75%
Total Dividend (including dividend on Preference Shares) paid	₹18 lakhs
Theoretical Market Price of an equity share under Gordon's Model	₹300
Tax Rate	20%
Market Price of an equity share in the beginning of the year	₹100

Required: Determine the theoretical market price of an equity share under Walter's Model and M.M. Model. Are you satisfied with the current dividend policy of the company? If not, what should be the Optimum Payout Ratio?

(7 marks)

7 (b) Funds Required ₹10,00,000, Tax Rate: 25%.

Financial Plan 1: 40% Equity Shares of ₹10 each to be issued at ₹20, Balance 10% Debt.

Financial Plan 2: 40% Equity Shares of ₹10 each to be issued at ₹20, 50% in 10% Debt and Balance in 15% Preference Shares.

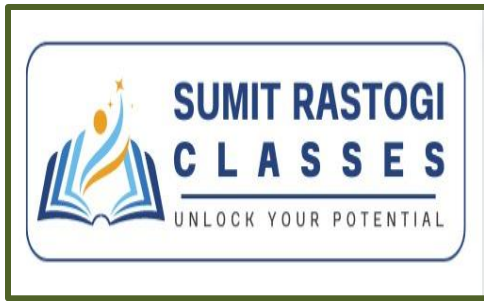
Calculate the Indifference Point and Financial Break-Even Point.

(7 marks)

8 (a) Write a short note on Assumption and Criticism of M.M Approach as to Capital Structure. (6 marks)

8 (b) Write a short note on Financial Leverage. (4 marks)

8 (c) Write a short note on Window Dressing. (4 marks)



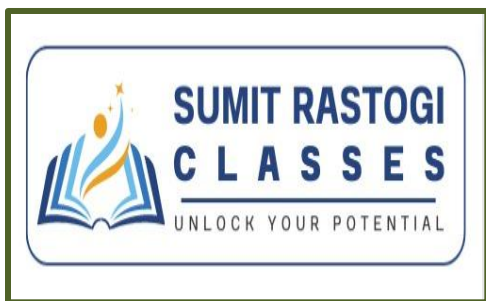
To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

SOLUTIONS (TEST PAPER-2)

SECTION - A

ANS. 1

- (i) (B) Lower
- (ii) (B) ₹8,00,000
- (iii) (D) k of Y Ltd. 25%
- (iv) (A) Debt Capitalisation Rate is equal to Equity Capitalisation Rate
- (v) (B) 2.5
- (vi) (D) 3
- (vii) (B) 30% increase
- (viii) (A) Getting EPS levels for varying levels of EBIT
- (ix) (A) 1.5
- (x) (D) Measurement of the cost of funds
- (xi) (C) ₹35.71
- (xii) (B) Dividends per share divided by Earning per Equity Share
- (xiii) (D) Zero
- (xiv) (D) same EPS
- (xv) (A) ₹18,000



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

SECTION - B

ANS. 2 (a)

(i) DETERMINATION OF OPERATING LEVERAGE = CONTRIBUTION/EBIT

Particulars	Situation A ₹	Situation B ₹	Situation C ₹
Sales	12,000	12,000	12,000
Less: Variable Cost	8,000	8,000	8,000
Contribution	4,000	4,000	4,000
Less: Fixed Cost	1,000	2,000	3,000
Operating Profit	3,000	2,000	1,000
Operating Leverage	1.33	2	4

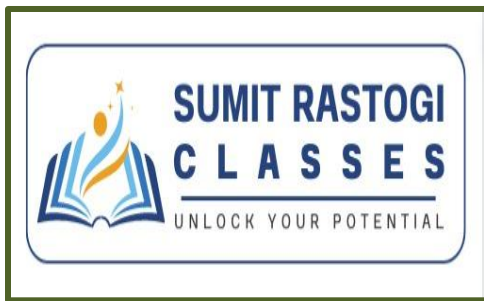
(ii) DETERMINATION OF FINANCIAL LEVERAGE = EBIT/EBT

Particulars	Financial Plan I ₹	Financial Plan II ₹	Financial Plan III ₹
Situation A:			
Operating Profit	3,000	3,000	3,000
Less: Interest	600	300	900
EBT	2,400	2,700	2,100
Financial Leverage	1.25	1.11	1.43
Situation B:			
Operating Profit	2,000	2,000	2,000
Less: Interest	600	300	900
EBT	1,400	1,700	1,100
Financial Leverage	1.43	1.18	1.82
Situation C:			
Operating Profit	1,000	1,000	3,000
Less: Interest	600	300	900
EBT	400	700	100
Financial Leverage	2.50	1.43	10

Combined Operating Leverage and Financial Leverage

Highest value Situation C and Financial Plan III = $4 \times 10 = 40$

Lowest Value Situation A and Financial Plan II = $1.33 \times 1.11 = 1.476$



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

ANS. 2 (b)

Computation of Value of the firm:

	₹
EBIT	5,00,000
Less: Interest on ₹8,00,000 @10%	<u>80,000</u>
Earnings for shareholders	4,20,000
Ke = Cost of Equity Capital	12.5%
Market Value of Equity (4,20,000/12.5%)	33,60,000
Market value of Debt	<u>8,00,000</u>
Value of the Firm	41,60,000

Overall Cost of Capital = EBIT/Value of Firm = ₹5,00,000/41,60,000 = 12.02%

ANS. 3 (a)

When DP ratio is 75%,
 Dividend per share is 75% of ₹8 = ₹6 per share
 Value of an equity share = $[D + (r/K_e) \times (E-D)] / K_e$

Computation of Value Per Share:

A Ltd.

$$P [6 + 0.15/0.10 \times 2] / 0.10 = \text{₹90}$$

B Ltd.

$$P [6 + 0.05/0.10 \times 2] / 0.10 = \text{₹70}$$

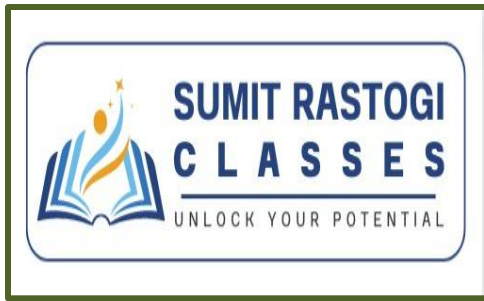
Inference:

A Ltd.:

A Ltd. is treated as Growth firm. IRR exceeds cost of capital. When (r) retained earnings exceeds Capitalisation rate (k) the market value per share increases and D/P ratio decreases. The market value per share will be maximum when it retains all its earnings without distributing any dividend. The optimum payment ratio is 0.

B Ltd.:

B Ltd. is treated as a decline firm. IRR is less than cost of capital. In case of declining firms, where r is less than k, the market value per share increases as D/P ratio increases. It is beneficial to the company if it distributes the earnings to its shareholders. The market value per share will be the maximum when it declares 100% dividend without retaining its earnings optimum D/P ratio is 100%.



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

ANS. 3 (b)

STATEMENT OF EXISTING PROFIT:

	(₹)
Sales	12,00,000
Less: Variable Cost	<u>9,00,000</u>
Contribution	3,00,000
Less: Fixed Cost	<u>2,00,000</u>
EBIT	1,00,000
Less: Interest @10% on 5,00,000	<u>50,000</u>
Profit before Tax (PBT)	50,000

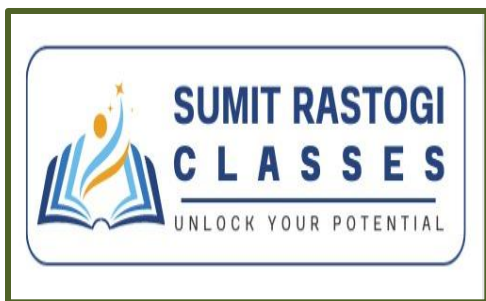
Operating leverage = Contribution/ EBIT = 3,00,000/ 1,00,000 = 3

Financial leverage = EBIT /PBT = 1,00,000 / 50,000 = 2

Combined leverage = OL X FL = 3 × 2 = 6

Statement of Sales needed to Double the EBIT:

Operating leverage is 3 times i.e. 33 1/3% increase in sales volume causes a 100% increase in operating profit or EBIT. So, at the sales ₹16,00,000, operating profit EBIT will become ₹2,00,000 i.e. Double the existing one.



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

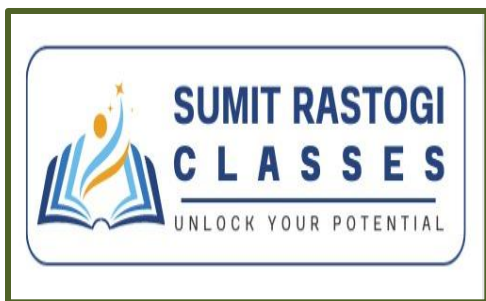
ANS. 4 (a)

(i) Assuming no taxes:

Details	X Ltd.	Y Ltd.	Z Ltd.
EBIT (₹)	20,00,000	20,00,000	20,00,000
Value of Firm = EBIT/15%	1,33,33,333	1,33,33,333	1,33,33,333
Less: Value of Debt	-	(15,00,000)	(18,00,000)
Value of Equity	1,33,33,333	1,18,33,333	1,15,33,333
No. of Equity Shares	3,00,000	2,50,000	2,50,000
Value per Equity Shares	44.44	47.33	46.13

(ii) Assuming 50% tax rate:

Details	X Ltd.	Y Ltd.	Z Ltd.
EBIT (₹)	20,00,000	20,00,000	20,00,000
Less: Interest	-	1,80,000	2,16,000
EBT	20,00,000	18,20,000	17,84,000
Less: Taxes at 50%	10,00,000	9,10,000	8,92,000
EAT	10,00,000	9,10,000	8,92,000
Value of Equity (Unlevered Firm) =EAT/15%	66,66,667	-	-
Value of Levered Firm = Value of Unlevered Firm + Tax Rate × Debt		66,66,667 + 15,00,000 × 50% = 74,16,667	66,66,667 + 18,00,000 × 50% = 75,66,667
Less: Value of Debt		15,00,000	18,00,000
Value of Equity	66,66,667	59,16,667	57,66,667
No. of Equity Shares	3,00,000	2,50,000	2,50,000
Value per Equity Share	22.22	23.67	23.07



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

ANS. 4 (b)

Total Assets ₹ 40 Crores

Total Assets Turnover Ratio 2.5

Hence, Total sales = ₹ 40 × 2.5 = ₹ 100 Crores

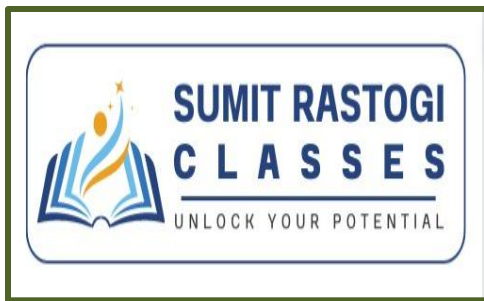
Computation of Profits after Tax (PAT)

Particulars	₹ (in crores)
Sales	100
Less: Variable Operating Cost @ 65%	65
Contribution	35
Less: Fixed Cost (Other Than Interest)	8
EBIT	27
Less: Interest On Debentures (15% X 20)	3
PBT	24
Less: Tax @ 40%	9.60
Profit After Tax	14.40

- (i) Earnings Per Share (EPS) = Profit after Tax (PAT)/No. of Equity shares = 14.40/1 = ₹ 14.40
(ii) Operating Leverage = Contribution/ EBIT = 35/27 = 1.296
(iii) Financial Leverage = EBIT/PBT = 27/24 = 1.125
(iv) Combined Leverage = Contribution/PBT = 35/24 = 1.458

ANS. 5 (a)

Details	Amount (₹) (Existing)	Amount (₹) (New)
Sales units (Number)	1,00,000	1,20,000
Sales Revenue @ ₹10	10,00,000	12,00,000
Less: Variable Cost @ ₹6	6,00,000	7,20,000
Contribution	4,00,000	4,80,000
Less: Fixed Cost	2,00,000	2,00,000
EBIT	2,00,000	2,80,000
Less: Interest (10% of ₹10,00,000)	1,00,000	1,00,000
EBT	1,00,000	1,80,000
Less: Tax @ 35%	35,000	63,000
EAT = EAE	65,000	1,17,000
Number of equity shares	10,000	10,000
EPS	6.50	11.70
(i) Increase in EPS = (₹11.70 - ₹6.50) = ₹5.20		
∴ Percentage increase in EPS = $\frac{5.20}{6.50} \times 100 = 80\%$		
Calculation of Leverages		
	1,00,000 units	1,20,000 units
(ii) Financial leverage: $\frac{EBIT}{EBT}$	$\frac{2,00,000}{1,00,000} = 2$	$\frac{2,80,000}{1,80,000} = \frac{14}{9} = 1.556$
(iii) Operating leverage: $\frac{Contribution}{EBT}$	$\frac{4,00,000}{2,00,000} = 2$	$\frac{4,80,000}{2,80,000} = \frac{12}{7} = 1.714$
Behaviour. Both the leverages have decreased in relation to increase in production from 1,00,000 to 1,20,000 units.		



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

ANS. 5 (b)

(i) Degree of Financial Leverage:

FL-EBIT/Profit before Tax = $1,60,000/1,40,000 = 1.1428$

If EBIT increases by 10%, the taxable income will increase by $1.1428 \times 10 = 11.428\%$
 and it may be verified as follows;

EBIT (after 10% increase)	₹1,76,000
Less: Interest	(20,000)
Profit before Tax	1,56,000

Increase in taxable income is ₹16,000 i.e. 11.428% of ₹1,40,000

(ii) Degree of Operating Leverage:

OL = Contribution/EBIT = $5,60,000/1,60,000 = 3.50$

If sale increases by 10%, the EBIT will increase by $3.50 \times 10 = 35\%$

and it may be verified as follow:

Sales (after 10% increase)	8,80,000
Less: Variable Expenses @ 30%	<u>2,64,000</u>
Contribution	6,16,000
Less: Fixed cost	<u>4,00,000</u>
EBIT	<u>2,16,000</u>

Increase in EBIT is ₹56,000 i.e. 35% of ₹1,60,000

ANS. 6 (a)

(i) Walter's model is given by $P = [D + (E - D) \times r / K_e] / K_e$

Where,

P = Market price per share.

E = Earnings per share = ₹10

D = Dividend per share = ₹8

r = Return earned on investment = 10%

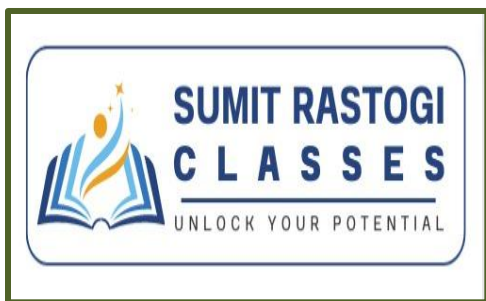
K_e = Cost of equity capital - $1/12.5 = 8\%$

$P = [8 + 0.10(10 - 8) / 0.08] / 0.08 = ₹131.25$

(ii) According to Walter's model when the return on investment is more than the cost of equity capital, the price per share increases as the dividend pay-out ratio decreases. Hence, the optimum dividend pay-out ratio in this case is nil.

So, at a pay-out ratio of zero, the market value of the company's share will be:

$P = [0 + 0.10(10 - 0) / 0.08] / 0.08 = ₹156.25.$



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

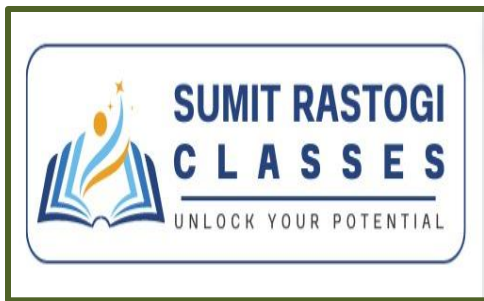
ANS. 6 (b)

Computation of Earnings Per Share:

Particulars	Financing Option		
	I	II	III
Equity capital	50,00,000	60,00,000	40,00,000
Debt	<u>50,00,000</u>	<u>40,00,000</u>	<u>60,00,000</u>
Amount to be raised	<u>1,00,00,000</u>	<u>1,00,00,000</u>	<u>1,00,00,000</u>
Earnings before Interest and Tax	22,00,000	22,00,000	22,00,000
Less: Interest on Debt	<u>7,60,000</u>	<u>6,00,000</u>	<u>9,40,000</u>
Profit before Tax	14,40,000	16,00,000	12,60,000
Less: Tax @ 50%	<u>7,20,000</u>	<u>8,00,000</u>	<u>6,30,000</u>
Profit after tax (PAT)	<u>7,20,000</u>	<u>8,00,000</u>	<u>6,30,000</u>
No. of Equity Shares	1,25,000	1,50,000	1,25,000
EPS (PAT ÷ No. of Shares)	₹ 5.76	₹ 5.33	₹ 5.04

Working Notes:

		Financing Option		
		I	II	III
Total Debt		50,00,000	40,00,000	60,00,000
Interest on:				
First	40,00,000 @ 15%	6,00,000	6,00,000	6,00,000
Next	10,00,000 @ 16%	1,60,000	—	1,60,000
Balance	10,00,000 @ 18%	—	—	1,80,000
Total Interest		<u>7,60,000</u>	<u>6,00,000</u>	<u>9,40,000</u>



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

ANS. 7 (a)

Working Notes

1. Calculation of EBIT:

Capital Employed = $100 + 50 + 50 = ₹200$ Lakhs

Return on Capital Employed = 18.75%

EBIT = $18.75\% \times 200 = ₹37.50$

2. Calculation of Ke:

EBIT	37.50
Interest ($50 \times 10\%$)	(5.00)
EBT	32.50
Tax 20%	(6.50)
EAT	26.00
Preference Dividend [$50 \times 12\%$]	(6.00)
PAFESH	20.00

No. of Equity Shares = $100/50 = 2$ Lakhs

EPS = $20/2 = ₹10$

DPS $12/2 = ₹6$ Per share

Payout ratio = $6/10 = 0.60$

Retention ratio = $1 - 0.60 = 0.40$

ROE = $20/100 = 0.20 = 20\%$

Growth rate = ROE $\times$ Retention ratio = $20 \times 0.40 = 8\%$

Ke = $D/P_o + g = 6/300 + 0.08 = 0.10 = 10\%$

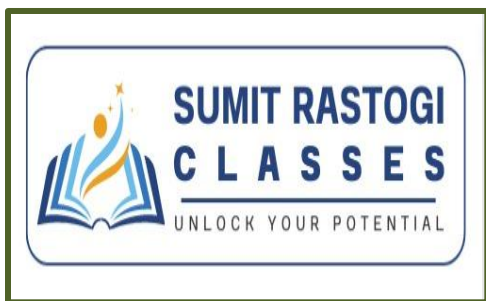
Price of Equity Share as per Walter Model:

Price = $[D + R(E-D)/k_e]/K_e = [6 + 0.1875(10-6)/0.10]/0.10 = ₹135$.

Since, $r > k_e$, Optimum Dividend payout ratio should be 0%. Hence, Current Policy is not satisfactory.

Price at optimum Payout ratio:

Price = $[0 + 0.1875(10-0)/0.10]/0.10 = ₹187.50$.



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

ANS. 7 (b)

(i) Plan 1:

Equity = $10,00,000 \times 40\% = ₹4,00,000$

Debt = $10,00,000 \times 60\% = ₹6,00,000$

Plan 2:

Equity = $10,00,000 \times 40\% = ₹4,00,000$

Debt = $10,00,000 \times 50\% = ₹5,00,000$

Preference = $10,00,000 \times 10\% = ₹1,00,000$

Calculation of Indifference Point

Particulars	Plan 1 (₹)	Plan 2 (₹)
EBIT	X	X
- Interest [6,00,000 x 10%] [5,00,000 x 10%]	(60,000)	(50,000)
EBT	X - 60,000	X - 50,000
- Tax 25%	(0.25X - 15,000)	(0.25X - 12,500)
EAT	0.75X - 45,000	0.75X - 37,500
- Preference Dividend [1,00,000 x 15%]	-	(15,000)
PAFESH	0.75X - 45,000	0.75X - 22,500
No. of Equity Shares	20,000	20,000
EPS	$(0.75X - 45,000) / 20,000$	$(0.75X - 22,500) / 20,000$

Indifference level of EBIT is the level where both the plans have same EPS. In the given question, since both the plans have same number of Equity shares, it is not possible to workout indifference level of EBIT.

Working Notes:

Issue Price of Equity = ₹20

No. of Shares:

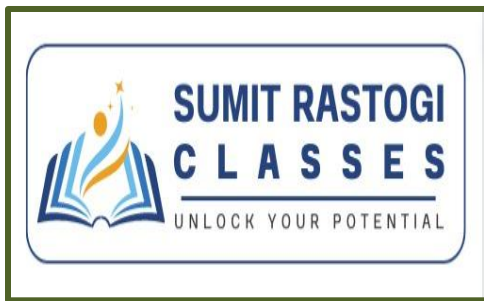
Plan 1 = $4,00,000 / 20 = 20,000$

Plan 2 = $4,00,000 / 20 = 20,000$

(ii) Financial Break-Even Level of EBIT

Plan 1 = ₹60,000

Plan 2 = ₹50,000.



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

ANS. 8 (a)

Assumptions:

1. The market is a perfect capital market, i.e. Investors are free to buy and sell securities. Individuals can borrow funds without restriction at the same terms as firms do. Investors behave rationally and are well informed. There are no transaction costs.
2. Firms can be classified into homogeneous risk classes. All firms in the same risk class will have the same degree of financial risk.
3. All firms have the same expectation of a firm's net operating income.
4. The dividend pay-out ratio is 100%, which means there is no retained earnings.
5. There is no corporate taxation. - This assumption has been removed later.

Criticisms:

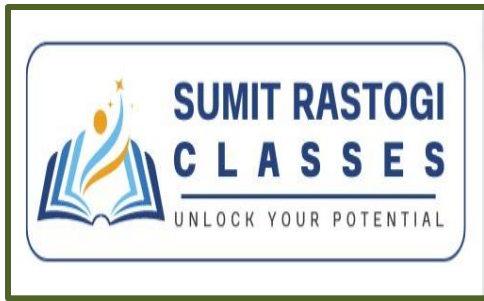
1. Rates of interest are not the same for the individuals and firms. The firms generally have a higher credit standing because of which they can borrow funds at a lower rate of interest as compared to individuals.
2. Home-Made leverage is not a perfect substitute for corporate leverage. If the firm borrows, the risk to the shareholder is limited to his shareholding in that company. But if he borrows personally, the liability will be extended to his personal property also.
3. The assumption that transaction costs do not exist is not valid because these costs are necessarily involved in buying and selling securities.
4. The working of arbitrage is affected by institutional restrictions, because the institutional investors are not allowed to practice home-made leverage.
5. The major limitation of Modigliani-Miller hypothesis is the existence of corporate taxes. Since the interest charges are tax deductible; a levered firm will have a lower cost of debt due to tax advantage when taxes exist.

ANS. 8 (b)

Financial Leverage:

The Financial Leverage may be defined as a % increase in EPS associated with a given percentage increase in the level of EBIT. Financial leverage emerges as a result of fixed financial charge against the operating profits of the firm. The fixed financial charge appears in case the funds requirement of the firm is partly financed by the debt financing. By using this relatively cheaper source of finance, in the debt financing, the firm is able to magnify the effect of change in EBIT on the level of EPS. The significance of DFL may be interpreted as follows:

- Other things remaining constant, higher the DFL, higher will be the change in EPS for same change in EBIT.
- Higher the higher is the DFL, which means more a firm borrows more is its risk.
- Since DFL depends on interest burden, it indicates risk inherent in a particular capital mix, and hence the name financial leverage.



To Buy classes visit our website
WWW.SUMITRASTOGICLASSES.COM
and for further queries contact us on
8826965733, 9811229279, and
9560978857.

ANS. 8 (c)

- The term **WINDOW DRESSING** means manipulation of accounts in a way so as to conceal vital facts and present the financial statements in a way to show a better position than what it actually is.
- On account of such a situation, presence of a particular ratio may not be a definite indicator of good or bad management.
- For example, a high stock turnover ratio is generally considered to be an indication of operational efficiency of the business. But this might have been achieved by unwarranted price reductions or failure to maintain proper stock of goods.