Chapter 1: Leverages

Q-1 A Firm has Sales of Rs. 40 Lakhs, Variable Cost of Rs. 25 Lakhs, Fixed Cost of Rs. 6 Lakhs, 10% Debt of Rs. 30 Lakhs, and Equity Capital of Rs. 45 Lakhs. Calculate Operating and Financial Leverage.
(A) 1.5 times; 1.5 times (B) 1.67 times; 1.5 times
(C) 1.67 times; 1.67 times (D) None of the above

Q-2

Sales	Rs. 25,00,000
Fixed costs	Rs. 7,50,000

Variable expenses as a percentage of sales are 50%.
Calculate operating leverage.
(A) 2 times (B) 3 times
(C) 2.5 times (D) None of the above

Q-3

Sales	Rs. 30,00,000
Fixed costs	Rs. 15,00,000

Variable expenses as a percentage of sales are 25%.
Calculate operating leverage.
(A) 2 times (B) 3 times
(C) 2.5 times (D) None of the above

Q-4 Compute Combined Leverage from the following data – (a) Earnings before Interest and Tax (EBIT) = Rs. 10,00,000, (b) Fixed Cost = Rs. 20,00,000, and (c) Earnings before Tax (EBT) = Rs. 8,00,000
(A) 4 times (B) 1.25 times
(C) 3 times (D) 3.75 times

Q-5 Annual Sales of a Company is Rs. 60,00,000. Sales to Variable Cost Ratio is 150% and Fixed Cost other than Interest is Rs. 5,00,000 per annum. The Company has 11% Debentures of Rs. 30,00,000. Calculate DOL, DFL and DCL of the Company.
(A) 1.33; 1.28; 1.71 (B) 1.33; 1.71; 1.28
(C) 1.28; 1.33; 1.71 (D) None of the above

Q-6

Financial leverage	2:1
Operating leverage	3:1
Interest charges per annum	20 lakh

Calculate EBIT
(A) 30 lakh (B) 50 lakh
(C) 45 lakh (D) 40 lakh

Q-7

Financial leverage	4:1
Operating leverage	6:1
Interest charges per annum	Rs. 30,000

Calculate EBIT
(A) Rs. 30,000 (B) Rs. 45,000
(C) Rs. 40,000 (D) None of the above

Q-8

Financial leverage	3:1
Operating leverage	5:1

Interest charges per annum Rs. 20,000
Calculate EBIT

(A) Rs. 30,000
(B) Rs. 50,000
(C) Rs. 60,000
(D) None of the above

Q-9 Financial leverage 2:1
Operating leverage 3:1
EBIT Rs. 40 lakh
Variable cost as percentage of sales 60%
Calculate sales

(A) Rs. 48 lakh
(B) Rs. 300 lakh
(C) Rs. 500 lakh
(D) None of the above

Q-10 Financial leverage 4:1
Operating leverage 6:1
EBIT Rs. 40,000
Variable cost as percentage of sales 75%
Calculate variable cost

(A) Rs. 9,60,000
(B) Rs. 2,40,000
(C) Rs. 10,40,000
(D) Rs. 7,20,000

Q-11 Variable Cost is 66⅔% of Sales
Interest - Rs. 200
Tax - 50%
DOL = 5
DFL = 3
Calculate Fixed operating cost, Variable cost and Earning after tax.

(A) Rs. 1,500; Rs. 3,000; Rs. 50
(B) Rs. 1,500; Rs. 1,200; Rs. 50
(C) Rs. 1,200; Rs. 3,000; Rs. 50
(D) None of the above

Q-12 The following financial data have been furnished by A Ltd., B ltd. & C Ltd. for the year ended 31-03-2001.

Particulars	C Ltd
Financial Leverage	2:1
Interest Expense	Rs. 1,00,000
Operating Leverage	2:1
Variable cost as % of sales	50%
Corporate tax rate	30%

Calculate Fixed operating cost, Variable cost and Earning after tax.

(A) Rs. 2,00,000; Rs. 2,00,000; Rs. 2,00,000
(B) Rs. 70,000; Rs. 4,00,000; Rs. 2,00,000
(C) Rs. 70,000; Rs. 4,00,000; Rs. 2,00,000
(D) Rs. 2,00,000; Rs. 4,00,000; Rs. 70,000

Q-13 Calculate financial leverage with the help of the following information
Operating Leverage 1.4 times
Combined Leverage 2.8 times

(A) 3.92 times
(B) 2 times
(C) 0.5 times
(D) None of the above

Q-14 Calculate operating leverage with the help of the following information

Financial leverage	6 times
Combined leverage	18 times

(A) 108 times (B) 0.33 times
(C) 4 times (D) 6 times

Q-15 Calculate contribution with the help of following information

Operating Leverage	1.4 times
Combined Leverage	2.8 times
Income Tax Rate	30%
Fixed Cost (excluding Interest)	Rs. 2.04 Lakhs
Sales	Rs. 30.00 Lakhs

(A) Rs. 7.14 lakh (B) Rs. 7 lakh
(C) Rs. 8 lakh (D) None of the above

Q-16 Calculate variable cost with the help of following information

Operating leverage	3 times
Financial leverage	5 times
Income tax rate	25%
Fixed cost (excluding interest)	Rs. 12,00,000
Sales	Rs. 30,00,000

(A) Rs. 75,00,000 (B) Rs. 72,00,000
(C) Rs. 18,00,000 (D) None of the above

Q-17 A Company operates at a production level of 5,000 units. The Contribution is Rs. 60 per unit, Operating Leverage is 6, Combined Leverage is 24. If Tax Rate is 30%, what would be its Earnings After Tax?
(A) Rs. 50,000 (B) Rs. 12,500
(C) Rs. Nil (D) Rs. 8,750

Q-18 Which of the following risks is associated with day to day operations of the firm?
(A) Financial Risk (B) Business risk
(C) Both (A) and (B) (D) None of the above

Q-19 Which of the following risks is associated with introduction of fixed interest bearing debt obligations in the capital structure of the firm?
(A) Financial Risk (B) Business risk
(C) Both (A) and (B) (D) None of the above

Q-20 Leverage associated with investment activities is called as
(A) Financial leverage (B) Operating leverage
(C) Combined leverage (D) None of the above

Q-21 Leverage associated with financing activities is called as
(A) Financial leverage (B) Operating leverage
(C) Combined leverage (D) None of the above

Q-22 High operating leverage is a result of
(A) High variable cost and low fixed cost (B) High variable cost only
(C) High fixed cost and low variable cost (D) None of the above

Use the following information for Questions 23 to 25

The following data is available for XYZ Ltd.:

Sales	Rs. 2,00,000
Less: Variable cost @ 25%	50,000
Contribution	1,50,000
Less: Fixed Cost	1,00,000
EBIT	50,000
Less: Interest	10,000
Profit before tax	40,000

Q-23 Using the concept of operating leverage, by what percentage will EBIT increase if there is 10% increase in sales?
(A) 30% (B) 3.33%
(C) 10% (D) None of the above

Q-24 Using the concept of financial leverage, by what percentage will the taxable income increase if EBIT increases by 6%?
(A) 4.8% (B) 7.5%
(C) 0.17% (D) None of the above

Q-25 Using the concept of leverage, by what percentage will the taxable income increase if the sales increase by 8%.
(A) 2.13% (B) 0.47%
(C) 30% (D) None of the above

Q-26 Consider the following information for Omega Ltd.

EBIT (Earnings before Interest and Tax	Rs. 15,750 Lakhs
Earnings before Tax (EBT)	Rs. 7,000 Lakhs
Fixed Operating Costs	Rs. 1,575 Lakhs

Calculate Percentage Change in Earnings Per Share, if Sales increase by 5%. **(CA Nov 2007)**
(A) 2.02% (B) 0.495
(C) 10% (D) 12.375%

Q-27 From the following data of Abhishek Ltd. as on 30th September, 2006, compute the combined leverage and percentage change in earnings per share (EPS), if sales are expected to increase by 5%:

	Rs.
Earnings before interest and tax (EBIT)	10 lakh
Profit before tax (PBT)	4 lakh
Fixed cost	6 lakh

(CS Dec 2006)
(A) 5 times; 25% (B) 4 times; 20%
(C) 3 times; 15% (D) None of the above

Q-28 From the following information calculate Degree of operating leverage

EBIT	Rs. 5,00,000
Sales	Rs. 30,00,000
P/V ratio	50%

(A) 6 times (B) 3 times
(C) 9 times (D) None of the above

Q-29 Degree of operating leverage 5 times
Fixed cost Rs. 4,00,000
Profit volume ratio 20%
Calculate sales
(A) Rs. 25,00,000 (B) Rs. 5,00,000
(C) Rs. 20,00,000 (D) None of theabove

Use the following information for Questions 30 to 32

The following figures relate to two companies:

	X Ltd.	Y Ltd.
Sales	Rs. 2,000 lakhs	Rs. 4,000 lakhs
P/V Ratio	60%	70%
Fixed Costs	Rs. 600 lakhs	Rs. 1,600 lakhs
Interest	Rs. 200 lakhs	Rs. 400 lakhs

(CA Exam)

Q-30 Which company has more operating risk?
(A) X ltd (B) Y Ltd
(C) Both the companies have same risk (D) Risk cannot be calculated

Q-31 Which company has more financial risk?
(A) X ltd (B) Y Ltd
(C) Both the companies have same risk (D) Risk cannot be calculated

Q-32 Which company has more overall risk?
(A) X ltd (B) Y Ltd
(C) Both the companies have same risk (D) Risk cannot be calculated

Q-33 Sales 1,00,000
Variable cost ratio 80%
Fixed cost Rs. 15,000
The company wants to increase it EBIT by 40%, how much percentage increase in sales is required?
(A) 160% (B) 15%
(C) 10% (D) None of the above

Q-34 Sales Rs. 20,00,000
Variable cost 60%
Fixed operating cost Rs. 4,00,000
The company wants to triple its EBIT. What change in sales should the company target?
(A) 150% (B) 100%
(C) 600% (D) 400%

Q-35 A firm has sales of Rs. 10 lacs and fixed cost of Rs. 1.5 lacs. Contribution margin is 30%. It has 10% debt of Rs. 8 lacs.
Also find out that if the firm wants to double the EBIT, how much percent increase in sales is needed? **{CS June 2017(P)}**
(A) 200 % (B) 50%
(C) 250% (D) None of the above

Q-36 Sales Rs. 20,00,000
Variable cost 60%
Fixed operating cost Rs. 4,00,000
Interest Rs. 2,00,000
The company wants to quadruplicate its EPS. What change in EBIT should the company target.
(A) 800% (B) 600%
(C) 150% (D) None of the above

Q-37 Calculate the Financial leverage from the following data: Net Worth Rs. 50,00,000, Debt/Equity 3:1, Interest Rate 12%, Operating Profit Rs. 40,00,000. **(CA Exam)**
(A) 2 times (B) 1.82 times
(C) 3 times (D) None of the above

Q-38 Calculate the Degree of Operating Leverage, Degree of Financial Leverage from the following data:

Sales	Rs. 1,00,00,000
Debt/Equity	3/1
P/V ratio	50%
Interest rate	12%
Operating profit	Rs. 20,00,000
Capital Turnover Ratio	0.8 times

(CA Exam)
(A) 2.5 times; 2.29 times (B) 2.29 times; 2.5 times
(C) 2.5 times; 2.5 times (D) 2.29 times; 2.29 times

Q-39 Selling price per unit Rs. 100
Variable cost per unit Rs. 80
Fixed cost Rs. 50,000
Calculate operating break even point.
(A) 500 units (B) 2,500 units
(C) 5,000 units (D) None of the above

Q-40 Selling price per unit Rs. 100
Variable cost per unit Rs. 80
Fixed cost Rs. 50,000
Calculate operating break even point.
(A) Rs. 2,50,000 (B) Rs. 3,00,000
(C) Rs. 4,00,000 (D) None of the above

Q-41 Selling price per unit Rs. 500
P/V ratio 50%
Fixed cost Rs. 5,00,000
Calculate operating break even point
(A) 500 units (B) 2,500 units
(C) 5,000 units (D) None of the above

Q-42 Selling price per unit Rs. 1,000
Variable cost ratio 80%
Fixed cost Rs. 1,00,000
Calculate operating break even point
(A) Rs. 4,00,000 (B) Rs. 5,00,000

(C) Rs. 10,00,000 (D) None of the above

Use the following information for Questions 43 to 46

Selling Price per unit	Rs 1,000
Variable cost per unit	Rs. 600
Fixed cost	Rs. 50,00,000

Q-43 Compute the operating BEP

(A) 15,000 units (B) 5,000 units
(C) 12,500 units (D) None of the above

Q-44 Compute the DOL, assuming that the sales is 12,500 units

(A) ∞ (B) Nil
(C) 1 (D) None of the above

Q-45 Compute the DOL, assuming that the sales is 20,000 units

(A) ∞ (B) Nil
(C) 1 (D) 2.67 times

Q-46 Compute the DOL, assuming that the sales 40,000 units

(A) ∞ (B) Nil
(C) 1.45 times (D) 2.67 times

Use the following information for Questions 47 to 50

Selling Price per unit	Rs 10
Variable cost per unit	Rs. 4
Fixed cost	Rs. 4,00,000

The company has 10% Bonds of Rs. 20,00,000

Q-47 Compute the Financial BEP

(A) Rs. 20,00,000 (B) Rs. 4,00,000
(C) Rs. 2,00,000 (D) None of the above

Q-48 Compute the DFL assuming that the sales is 1,00,000 units

(A) ∞ (B) Nil
(C) 1 (D) None of the above

Q-49 Compute the DFL assuming that the sales is 1,50,000 units

(A) ∞ (B) Nil
(C) 1 (D) 1.67 times

Q-50 Compute the DFL assuming that the sales is 4,00,000 units

(A) ∞ (B) 1.11 times
(C) 1 (D) 1.67 times

God is all knowing. Without even saying a word our condition is known to God

- Sant Rajinder Singh Ji

Q-51 Selling price per unit Rs. 50
Variable cost per unit Rs. 30
Fixed cost Rs. 5,00,000
10% Debentures Rs. 10,00,000
Calculate overall break even point
(A) 3,00,000 units (B) 30,000 units
(C) 50,000 units (D) None of the above

Q-52 Selling price per unit Rs. 50
Variable cost per unit Rs. 30
Fixed cost Rs. 5,00,000
10% Debentures Rs. 10,00,000
Calculate overall break even point
(A) Rs. 30,00,000 (B) Rs. 20,00,000
(C) Rs. 50,000 (D) Rs. 15,00,000

Use the following information for Questions 53 to 57

A firm has sales of Rs. 75,00,000, variable cost of Rs. 42,00,000 and fixed cost of Rs. 6,00,000. It has a debt of Rs. 45,00,000 at 9% and equity of Rs. 55,00,000.

Q-53 What is the firm's ROI?
(A) 27% (B) 30%
(C) 35% (D) None of the above

Q-54 Does it have favourable financial leverage?
(A) Yes (B) No
(C) May be (D) None of the above

Q-55 If the firm belongs to an industry whose asset turnover is 3, does it have a high or low asset leverage?
(A) High (B) Low
(C) Same as industry average (D) None of the above

Q-56 What are the operating, financial and combined leverages of the firm?
(A) 1.22 times; 1.18 times; 1.44 times (B) 1.22 times; 1.50 times; 1.44 times
(C) 1.22 times; 1.18 times; 3 times (D) None of the above

Q-57 If the sales drop to Rs. 50,00,000 what will be the new EBIT?
(A) Rs. 25,00,000 (B) Rs. 16,00,000
(C) Rs. 35,00,000 (D) None of the above

Use the following information for Questions 58 to 62

The following details of ABC Limited for the ended 31st March, 2009 are given below –

Operating Leverage	1.4 times
Combined Leverage	2.8 times
Income Tax Rate	30%
Fixed Cost (excluding Interest)	Rs. 2.04 Lakhs
Sales	Rs. 30.00 Lakhs
12% Debentures of Rs. 100 each	Rs. 21.25 Lakhs
Equity Share Capital of Rs. 10 each	Rs. 17.00 Lakhs

Q-58 Calculate Financial Leverage,

(A) 2 times (B) 5 times
(C) 7 times (D) None of the above

Q-59 Calculate PV Ratio

(A) 25% (B) 30%
(C) 35% (D) 23.8%

Q-60 Calculate Earning Per Share (EPS).

(A) Rs. 2 (B) Rs. 1
(C) Rs. 3 (D) Rs. 1.05

Q-61 If the Company belongs to an industry, whose Assets Turnover is 1.5, does it have a high or low Assets Leverage?

(A) High (B) Low
(C) Same as industry average (D) None of the above

Q-62 At what level of Sales, the Earning Before Tax (EBT) of the Company will be equal to Zero?

(A) Rs. 19.29 lakhs (B) Rs. 25 lakhs
(C) Rs. 30 lakhs (D) None of the above

<u>Use the following information for Questions 63 to 68</u>

Use the following data and solve the problem:

Total Sales	150000 Units.
Selling Price	Rs. 25
Fixed Cost	Rs. 280000
Variable Cost	Rs. 20
Debt	Rs. 10,00,000 @ 11% interest rate
Equity	Rs. 20,00,000
Face value of each share	Rs. 10
Tax rate	45%

Q-63 Calculate return on investment

(A) 17% (B) 15.67%
(C) 20% (D) None of the above

Q-64 Calculate operating leverage

(A) 1.596 times (B) 2.598 times
(C) 2.034 times (D) None of the above

Q-65 Calculate combined leverage

(A) 3.025 times (B) 2.083 times
(C) 4.598 times (D) None of the above

Q-66 If the Assets turnover of the industry is 0.75, does the firm have a high or low degree of asset turnover?

(A) High (B) Low
(C) Same as industry average (D) None of the above

Q-67 If EBIT doubles, what will be the new level of EBT?
(A) Rs. 9,40,000
(B) Rs. 8,30,000
(C) Rs. 5,00,000
(D) None of the above

Q-68 How much the company's sale have to come down so that the earnings before taxes is equal to zero?
(A) 78,000 units
(B) 72,000 units
(C) 1,50,000 units
(D) None of the above

Use the following information for Questions 69 to 75

DIGI Computers Ltd. is a manufacturer of computer systems. The company is marketing its products in domestic as well as global markets. It has total sales of Rs.1 crore. Its variable and fixed costs amount to Rs. 60 lakh and Rs.10 lakh respectively. It has borrowed Rs.60 lakh @ 10% per annum and has an equity capital of Rs.75 lakh.

Q-69 What is company's return on investment?
(A) 22.90%
(B) 22%
(C) 22.22 %
(D) None of the above

Q-70 Does it have favourable financial leverage?
(A) Yes
(B) No
(C) May be
(D) None of the above

Q-71 If the firm belongs to an industry whose asset turnover is 1, does it have high or low asset leverage?
(A) High
(B) Low
(C) Same as industry average
(D) None of the above

Q-72 Calculate operating leverage
(A) 1.33 times
(B) 1.25 times
(C) 1.667 times
(D) None of the above

Q-73 Calculate Financial leverage
(A) 1.33 times
(B) 1.25 times
(C) 1.667 times
(D) None of the above

Q-74 Calculate Combined leverage
(A) 1.33 times
(B) 1.25 times
(C) 1.667 times
(D) None of the above

Q-75 If sales drop to Rs.50 lakh, what will be the new EBIT?
(A) Rs. 20,00,000
(B) Rs. 30,00,000
(C) Rs. 10,00,000
(D) None of the above

Q-76 Kumar company has sales of Rs. 25,00,000. Variable cost of Rs. 15,00,000 and fixed cost of Rs. 5,00,000 and debt of Rs. 12,50,000 at 8% rate of interest. Calculate combined leverage.
(A) 2.5 times
(B) 2 times
(C) 1.25 times
(D) None of the above

Q-77 Earning before interest and tax Rs. 2,00,000
Interest Rs. 1,00,000
Earning before tax Rs. 1,00,000
If EBIT doubles, what would be the revised EBT?
(A) Rs. 4,00,000 (B) Rs. 5,00,000
(C) Rs. 3,00,000 (D) None of the above

Q-78 Sales Rs. 5,00,000
Profit volume ratio 20%
Fixed operating cost Rs. 20,000
Interest cost Rs. 30,000
Calculate sales at which EBT of the firm is zero.
(A) Rs. 2,50,000 (B) Rs. 5,00,000
(C) Rs. 7,50,000 (D) Rs. 10,00,000

Q-79 Sales Rs. 5,00,000
Variable cost ratio 60%
Fixed operating cost Rs. 1,00,000
If the sales drop to Rs. 4,00,000, what would be the revised EBIT?
(A) Rs. 2,00,000 (B) Rs. 50,000
(C) Rs. 70,000 (D) Rs. 60,000

Q-80 At Operating Break even point, Degree of operating leverage is
(A) ∞ (B) Nil
(C) 1 (D) None of the above

Q-81 At Financial Break even point, Degree of financial leverage is
(A) 1 (B) Nil
(C) ∞ (D) None of the above

<u>Use the following information for Questions 82 to 84</u>

The following figures are available for ABC Ltd.:
Net sales Rs. 15 crores
EBIT as percentage of Net Sales 12%
Capital employed: (a) Equity Rs. 5 crores: (b) Preference Shares of Rs. 1 crore bearing 13% Rate of Dividend: (c) Debt @ 15% Rs. 3 crores.
Given that its Combined Leverage = 3
The applicable Income Tax is to be taken as 40%.

Q-82 You are required to calculate the Return on Equity of the company
(A) 13.6% (B) 11.33%
(C) 15% (D) None of the above

Q-83 Calculate Financial Leverage of the company
(A) 2 times (B) 1.22 times
(C) 1.80 times (D) 1.59 times

Q-84 Calculate Operating Leverage of the company.
(A) 3 times (B) 5 times
(C) 2.2 times (D) 1.89 times

Use the following information for Questions 85 to 89

The following is the income statement of XYZ Ltd. For the year ended 2008:

	In Rs Lacs
Sales	50
Less: Variable cost	10
Fixed cost	20
EBIT	20
Less: Interest	5
Profit before tax	15
Less: Tax at 40%	6
Profit after tax	9
Less: Preference dividend	1
Profit for equity shareholder	8

The company has 4 lacs equity shares issued to the shareholder.

Q-85 Calculate DOL

(A) 3 times (B) 5 times
(C) 2 times (D) None of the above

Q-86 Calculate DFL

(A) 1.43 times (B) 1.5 times
(C) 3 times (D) None of the above

Q-87 Calculate DCL

(A) 3 times (B) 2 times
(C) 4 times (D) None of the above

Q-88 What would be the EPS if the sales level increases by 10%.

(A) Rs. 3 (B) Rs. 2
(C) Rs. 2.6 (D) None of the above

Q-89 What would be the EPS if the sales level decreases by 20%.

(A) Rs. 3 (B) Rs. 1.2
(C) Rs. 1.8 (D) 0.8

Q-90

Sales	Rs. 20,00,000
Variable cost	60%
Fixed operating cost	Rs. 4,00,000
Interest	Rs. 2,00,000
Preference dividend	Rs. 50,000
Tax rate	50%

The company wants to quintuplicate its EPS. What change in sales should the company target?

(A) 62.5% (B) 50%
(C) 75% (D) None of the above

Q-91 Calculate Overall Break even point in Q-90

(A) Rs. 16,25,000 (B) Rs. 17,50,000
(C) Rs. 20,00,000 (D) None of the above

Q-92 Calculate Financial Break even point in Q-91

(A) Rs. 2,50,000 (B) Rs. 2,00,000

(C) Rs. 3,00,000 (D) None of the above

Q-93

Sales	Rs. 20,00,000
Variable cost	60%
Fixed operating cost	Rs. 4,00,000
Interest	Rs. 2,00,000
Preference dividend	Rs. 50,000
Tax rate	50%

The company wants to quadruplicate its EPS. What change in EBIT should the company target?

(A) 200% (B) 75%

(C) 100% (D) None of the above

Q-94 Calculate Financial Break even point in Q-93

(A) Rs. 3,00,00 (B) Rs. 50,000

(C) Rs. 3,50,000 (D) None of the above

Q-95 The net sales of ABC Ltd. is Rs. 30 crore. Earning before interest and tax of the company as a percentage of net sales is 15%.

The capital employed comprise of :

Equity	Rs. 12 crore
13% cumulative pref. shares	Rs. 5 crore
Debentures @ 15%	Rs. 6 crore

Calculate operating leverage of the company given that combined leverage is 3.

{CS December 2017 (P)}

(A) 1.967 times (B) 3 times

(C) 4 times (D) None of the above

Q-96 The following summarizes the percentage changes in operating income, percentage changes in revenues, and betas for four pharmaceutical firms.

Firm	Change in revenue	Change in operating income	Beta
PQR Ltd.	27%	25%	1.00
RST Ltd.	25%	32%	1.15
TUV Ltd	23%	36%	1.30
WXY Ltd.	21%	40%	1.40

Which of the above companies have minimum operating risk?

(A) PQR Ltd. (B) RST Ltd.

(C) TUV Ltd. (D) WXY Ltd.

Q-97 Which of the companies have maximum operating risk in Q-96?

(A) PQR Ltd. (B) RST Ltd.

(C) TUV Ltd. (D) WXY Ltd.

Q-98 Which of the following formulae is correct for calculating Combined Leverage?

(A) Contribution ÷ EBT (B) DOL × DFL

(C) % change in EPS ÷ % Change in sales (D) All of the above

Q-99 Which of the following formulae is correct for calculating operating leverage?
(A) Sales ÷ EBIT (B) EBIT ÷ EBT
(C) EBIT ÷ Contribution (D) None of the above

Q-100 Which of the following is correct for calculating financial leverage?
(A) Percentage change in Sales ÷ Percentage in EBIT
(B) Percentage change in EBIT ÷ Percentage in Sales
(C) Percentage change in EPS ÷ Percentage in sales
(D) Percentage change in EPS ÷ Percentage in EBIT

Q-101 Combined leverage is also called
(A) Super leverage (B) Partial Leverage
(C) Proportionate leverage (D) None of the above

Q-102 The degree of super-leverage/Combined leverage would be calculated by
(A) Adding DOL and DFL (B) Dividing DOL with DFL
(C) Subtracting DOL from DFL (D) Multiplying DOL and DFL **(CS Sample Test Paper)**

Q-103 A firm with high operating leverage is characterized by ____________ while one with high financial leverage is characterized by ________________
(A) low fixed cost of production; low fixed financial costs
(B) high variable cost of production; high variable financial costs
(C) high fixed costs of production; high fixed financial costs
(D) low costs of production; high fixed financial costs **(CS Sample Test Paper)**

Q-104 A firm's degree of operating leverage (DOL) depends primarily upon its
(A) Sales variability (B) Level of fixed operating costs
(C) Closeness to its operating break-even point (D) Debt equity ratio **(CS Sample Test Paper)**

Q-105 Calculate the break even point for a company with sales of 1,00,000 units @ Rs. 10 per unit, Variable cost are Rs. 5,00,000, Contribution is Rs. 5,00,000, Fixed cost is Rs. 3,00,000 and net profit is Rs. 2,00,000
(A) Rs. 2,00,000 (B) Rs. 4,00,000
(C) Rs. 6,00,000 (D) Rs. 8,00,000 **(CS Sample Test Paper)**

Q-106 In the context of operating leverage break-even analysis, if selling price per unit rises and all other variables remain constant, the operating break-even point in units will:
(A) Fall (B) Rise
(C) Stay the same (D) Still be indeterminate until interest and preferred dividends paid are known
(CS Sample Test Paper)

Q-107 A company has the following capital structure:

Particulars	**Rs.**
Equity share capital	1,00,000
8% Debentures	1,25,000

The present EBIT is Rs. 50,000. Calculate the financial leverage assuming that the company is in 50% tax bracket.
(A) 2 times (B) 1.25 times
(C) 3 times (D) None of the above

Q-108 Calculate Earning before interest and tax with the help of following information:
The operating leverage is 2.50.
The financial leverage is 3.00.
The earnings per share is Rs. 30.
Present market price per share is Rs. 225.
Applicable tax rate is 33.0357%.
Number of equity shares outstanding as of date are 20,000. **{CS June 2018(P)}**
(A) Rs. 8,96,000
(B) 26,88,000
(C) Rs. 67,20,000
(D) None of the above

Use the following information for Questions 109 to 114

The balance sheet of XYZ Company is given as under:

Liabilities	Amount	Assets	Amount
Equity Capital (Rs. 10 per share)	90,000	Net Fixed Assets	2,25,000
10% long term debt	1,20,000	Current Assets	75,000
Retained earnings	30,000		
Current liabilities	60,000		
	3,00,000		**3,00,000**

The Company's total assets turnover ratio is 3.00, its fixed operating cost is Rs.1,50,000 and its variable operating cost ratio is 50%. The income tax rate is 50%.

Q-109 Calculate operating leverage
(A) 1.50 times
(B) 1.04 times
(C) 1.56 times
(D) None of the above

Q-110 Calculate financial leverage
(A) 1.50 times
(B) 1.04 times
(C) 1.56 times
(D) None of the above

Q-111 Calculate combined leverage
(A) 1.50 times
(B) 1.04 times
(C) 1.56 times
(D) None of the above

Q-112 Determine the likely level of EBIT if EPS is Re. 1
(A) Rs. 30,000
(B) Rs. 48,000
(C) Rs. 12,000
(D) None of the above

Q-113 Determine the likely level of EBIT if EPS is Re. 2
(A) Rs. 30,000
(B) Rs. 48,000
(C) Rs. 12,000
(D) None of the above

Q-114 Determine the likely level of EBIT if EPS is Re. 0
(A) Rs. 30,000
(B) Rs. 48,000
(C) Rs. 12,000
(D) None of the above

God is all knowing. Without even saying a word our condition is known to God
- Sant Rajinder Singh Ji

Q-115 XYZ and Co. has three financial plans before it. Calculate Operating & Financial Leverage for the firm and also find out the highest and lowest value of combined leverage.

Production	800 unit		
Selling Price per unit	Rs. 15		
Variable Cost per unit	Rs. 10		
Fixed Cost:			
Situation A	1,000		
Situation B	2,000		
Situation C	3,000		
Capital Structure	Plan I	Plan II	Plan III
Equity Capital	5,000	7,500	2,500
12% Debt	5,000	2,500	7,500

(Study Material; CA Exam)

Q-116 Calculate the operating, financial and combined leverage under situations 1 and 2 and the financial plans for X and Y respectively from the following information relating to the operating and capital structure of a company, and also find out which gives the highest and the least value? Installed capacity is 5,000 units. Annual production and sales at 60% of installed capacity.

Selling price per unit Rs. 25
Variable cost per unit Rs. 15

Fixed Cost:

Situation '1'= Rs. 10,000 Situation '2' = Rs. 12,000

Capital Structure of the Company is as follows:

	Financial Plans	
	X(Rs.)	Y(Rs.)
Equity	25,000	50,000
Debt (Cost of Debt 10%)	50,000	25,000
	75,000	75,000

(Study Material)

Q-117 You are a finance manager in Big Pen Ltd. The degree of operating leverage of your company is 5.0. The degree of financial leverage of your company is 3.0. Your managing director has found that the degree of operating leverage and the degree of financial leverage of your nearest competitor Small Pen Ltd. are 6.0 and 4.0 respectively. In his opinion, Small Pen Ltd. is better than that of Big Pen Ltd. because of higher value of degree of leverages. Do you agree with the opinion of your managing director?

(A) Yes (B) No
(C) May be (D) None of the above

Q-118 Calculate the Operating Leverage from the following data:
Sales Rs. 1,00,000, Variable Costs 60%, Fixed Costs Rs. 24,000. **(CA Exam)**

(A) 3 times (B) 2.5 times
(C) 4 times (D) None of the above

Q-119 ABC Ltd. has an average selling price of Rs.10 per unit. Its variable unit costs are Rs.7 and fixed costs amount to Rs.1,70,000. It finances all its assets by equity funds. It pays 30% tax on its income. PQR Ltd. is identical to ABC Ltd. except in respect of the pattern of financing. The latter finances its assets 50% by equity and 50% by debt, the interest on which amounts to 20,000. Determine the degree of combined leverage at Rs. 7,00,000 sales for both the companies. **{CS December 2016(P)}**

(A) 5.25; 10.5 (B) 5.25; 10
(C) 5; 10.5 (D) None of the above

Q-120

	ABC Ltd	*XYZ Ltd*
Sales (Rs.)	40 lakh	50 lakh
Variable expense (as % of sales)	40%	30%
Fixed cost (Rs.)	10 lakh	20 lakh

Which company has the greater business risk and why? **{CS December 2015(P)}**

(A) ABC Ltd. (B) XYZ Ltd

(C) Both companies (D) None of the companies

Use the following information for Questions 121 to 125

P L Forgings Ltd. has the following balance sheet and income statement information:

Balance sheet as on March 31st

Liabilities	Amount (Rs)	Assets	Amount (Rs.)
Equity Capital (Rs. 10 per share)	8,00,000	Net Fixed Assets	10,00,000
10% Debt	6,00,000	Current Assets	9,00,000
Retained Earnings	3,50,000		
Current Liabilities	1,50,000		
	19,00,000		**19,00,000**

Income Statement for the year ending March 31st

Sales	3,40,000
Operating expenses (including Rs. 60,000 depreciation)	1,20,000
EBIT	2,20,000
Less: Interest	60,000
Earnings Before Tax	1,60,000
Less: Taxes	56,000
Net Earnings (EAT)	1,04,000

All operating expenses, other than depreciation, are variable costs.

Q-121 Determine the degree of operating leverage

(A) 1.273 times (B) 1.375 times

(C) 1.75 times (D) None of the above

Q-122 Determine the degree of financial leverage

(A) 1.273 times (B) 1.375 times

(C) 1.75 times (D) None of the above

Q-123 Determine the degree of combined leverage

(A) 1.273 times (B) 1.375 times

(C) 1.75 times (D) None of the above

Q-124 What will be earning per share if sales increase by 20%

(A) Rs. 1.7 (B) Rs. 1.755

(C) Rs. 2 (D) Rs. 0.845

Q-125 What will be earning per share if sales decrease by 20%

(A) Rs. 1.7 (B) Rs. 1.755

(C) Rs. 2 (D) Rs. 0.845

Q-126 The share capital of X Ltd. is Rs. 16,00,000 with shares of face value of Rs. 10. It has a debt capital of Rs. 5,00,000 at 12% interest rate. The sales of the firm are 2,50,000 units p.a. at a selling price of Rs. 6 p.u. and the variable cost p.u. is Rs. 3. The fixed cost amount to Rs. 1,00,000 and the company pays tax @ 50%. If the sales increases by 20%, calculate percentage increase in EPS
(A) 30% (B) 20%
(C) 35% (D) 25.43%

Use the following information for Questions 127 to 130

A Company had the following Balance Sheet as on 31st March 2006 (Rs. Crores)

Liabilities and Equity	Rs. Crore	Assets	Rs. Crores
Equity Share Capital (1 Crore Shares of Rs. 10 each)	10	Fixed Assets(Net)	25
Reserves and Surplus	2	Current Assets	15
15% Debentures	20		
Current Liabilities	8		
Total	**40**	**Total**	**40**

Additional Information given is as under –
Fixed Costs per annum (excluding interest) : Rs. 8 Crores
Variable Operating Costs Ratio : 65%
Total Assets Turnover Ratio : 2.5
Income Tax Rate : 40%

Q-127 Calculate Operating Leverage
(A) 1.30 times (B) 1.13 times
(C) 1.46 times (D) None of the above

Q-128 Calculate Financial Leverage
(A) 1.30 times (B) 1.13 times
(C) 1.46 times (D) None of the above

Q-129 Calculate Combined Leverage
(A) 1.30 times (B) 1.13 times
(C) 1.46 times (D) None of the above

Q-130 Calculate EPS,
(A) Rs. 16 (B) Rs. 20
(C) Rs. 25 (D) Rs. 14.4

Use the following information for Questions 131 to 135

X Ltd. details are as under:
Sales (@ 100 per unit) Rs. 24,00,000
Variable Cost 50%
Fixed Cost Rs. 10,00,000
It has borrowed Rs. 10,00,000 @ 10% p.a. and its equity share capital is Rs. 10,00,000 (Rs. 100 each). The company is in a tax bracket of 50%. Calculate:

Q-131 Calculate Operating Leverage
(A) 3 times (B) 6 times
(C) 2 times (D) 12 times

Q-132 Calculate Financial Leverage
(A) 3 times (B) 6 times
(C) 2 times (D) 12 times

Q-133 Calculate Combined Leverage
(A) 3 times (B) 6 times
(C) 2 times (D) 12 times

Q-134 Calculate return on equity
(A) 15% (B) 20%
(C) 25% (D) 5%

Q-135 If the sales increase by Rs. 6,00,000; what will the new EBIT?
(A) Rs. 15,00,000 (B) Rs. 10,00,000
(C) Rs. 5,00,000 (D) None of the above

Examination Questions

Q-136 A firm has a Degree of Operating Leverage (DOL) of 5 and Degree of Financial Leverage (DFL) of 4. The interest burden is Rs. 300 lakhs, variable cost as a % to sales is 75%, and the effective tax rate is 45%. Its fixed cost is:
(A) Rs. 1,600 Lakhs (B) Rs. 1,450 lakhs
(C) Rs. 1,500 Lakhs (D) Rs. 1,700 Lakhs **(CS Dec 2019)**

Q-137 If a company acquired a helicopter for its top management for a certain period on a fixed payment, which of the following will be true regarding leverage?
(A) DOL will increase (B) DFL will increase
(C) DOL will decrease (D) DCL will remain unchanged **(CS Dec 2019)**

Q-138 A firm has a DOL of 6 at a certain production level. If sales of the firm rise by 1%, it implies that:
(A) EBIT will also rise by 1% (B) EBIT will rise by 1/6%
(C) EBIT will rise by 6% (D) Change in EBIT is undecided **(CS Dec 2019)**

Q-139 The capital structure of Neel Ltd. is as under:

Equity + Reserves & Surplus	Rs. 200 Lakhs
10% Preference shares	Rs. 50 Lakhs
12% Term loans	Rs. 150 Lakhs

What should be the approx. Earnings Before Interest and Taxes (EBIT) so that Earnings Per Share (EPS) is 0 (Nil)? Assume Tax Rate 35%.
(A) Rs. 23 Lakhs (B) Rs. 24.75 Lakhs
(C) Rs. 25.69 Lakhs (D) Rs. 29.30 Lakhs **(CS Dec 2019)**

Q-140 X company has sales of Rs. 12,00,000, Variable cost is 50% and fixed cost Rs. 2,50,000. Operating leverage of the company is:
(A) 1.33 (B) 1.67
(C) 1.71 (D) 2 **(CS Dec 2020)**

Q-141 A firm provides the following information:
Sold 2,00,000 units @ Rs. 30 per unit; Variable cost Rs. 15 per unit, fixed cost Rs. 10,00,000 and debt of Rs. 10,00,000 at 10% rate of interest. Calculate the degree of Financial leverage.
(A) 1.5 (B) 0.66
(C) 1.053 (D) Insufficient information **(CS Dec 2020)**

ANSWERS

Q-1 B	Q-2 C	Q-3 B	Q-4 D	Q-5 A	Q-6 D	Q-7 C
Q-8 A	Q-9 B	Q-10 D	Q-11 C	Q-12 D	Q-13 B	Q-14 *
Q-15 A	Q-16 D	Q-17 D	Q-18 B	Q-19 A	Q-20 B	Q-21 A
Q-22 C	Q-23 A	Q-24 B	Q-25 C	Q-26 D	Q-27 B	Q-28 B
Q-29 A	Q-30 B	Q-31 C	Q-32 B	Q-33 C	Q-34 B	Q-35 B
Q-36 C	Q-37 B	Q-38 A	Q-39 B	Q-40 A	Q-41 D	Q-42 B
Q-43 C	Q-44 A	Q-45 D	Q-46 C	Q-47 C	Q-48 A	Q-49 D
Q-50 B	Q-51 B	Q-52 D	Q-53 A	Q-54 A	Q-55 B	Q-56 A
Q-57 B	Q-58 A	Q-59 D	Q-60 D	Q-61 B	Q-62 A	Q-63 B
Q-64 A	Q-65 B	Q-66 A	Q-67 B	Q-68 B	Q-69 C	Q-70 A
Q-71 B	Q-72 A	Q-73 B	Q-74 C	Q-75 C	Q-76 A	Q-77 C
Q-78 A	Q-79 D	Q-80 A	Q-81 C	Q-82 A	Q-83 D	Q-84 D
Q-85 C	Q-86 B	Q-87 A	Q-88 C	Q-89 D	Q-90 B	Q-91 B
Q-92 C	Q-93 B	Q-94 A	Q-95 A	Q-96 A	Q-97 D	Q-98 D
Q-99 D	Q-100 D	Q-101 A	Q-102 D	Q-103 C	Q-104 C	Q-105 C
Q-106 A	Q-107 B	Q-108 B	Q-109 A	Q-110 B	Q-111 C	Q-112 A
Q-113 B	Q-114 C	Q-115 **	Q-116 **	Q-117 B	Q-118 B	Q-119 A
Q-120 B	Q-121 A	Q-122 B	Q-123 C	Q-124 B	Q-125 D	Q-126 D
Q-127 A	Q-128 B	Q-129 C	Q-130 D	Q-131 B	Q-132 C	Q-133 D
Q-134 D	Q-135 C	Q-136 A	Q-137 A	Q-138 C	Q-139 C	Q-140 C
Q-141 C						

* None of the option is correct. The correct answer is 3 times. The inconsistency of ambiguity in the question, if any, is taken care of while evaluating the answer sheets.

** Discussed in class

"Heated gold becomes ornaments.

Beaten copper becomes wires.

Depleted stones become statue.

So the more pain you get in life you become more valuable."