

RATIO ANALYSIS

QUESTION NO.1 Following information has been gathered from the books of Tram Ltd. the equity shares of which is trading in the stock market at ₹ 14.

<u>Particulars</u>	<u>Amount (₹)</u>
Equity Share Capital (face value ₹ 10)	10,00,000
10% Preference Shares	2,00,000
Reserves	8,00,000
10% Debentures	6,00,000
Profit before Interest and Tax for the year	4,00,000
Interest	60,000
Profit after Tax for the year	2,40,000

Calculate the following: (i) Return on Capital Employed (ii) Earnings per share (iii) PE ratio

Hint: Calculate ROCE Both Pre-Tax & Post-Tax

CAPITAL BUDGETING-PART 2 EXPECTED NPV

QUESTION NO.2 Door Ltd. is considering an investment of ₹ 4,00,000. This investment is expected to generate substantial cash inflows over the next five years. Unfortunately, the annual cash flows from this investment is uncertain, and the following profitability distribution has been established.

<u>Annual Cash Flow (₹)</u>	<u>Probability</u>
50,000	0.3
1,00,000	0.3
1,50,000	0.4

At the end of its 5 years life, the investment is expected to have a residual value of ₹ 40,000. The cost of capital is 5%. (i) **Calculate** NPV under the three different scenarios. (ii) **Calculate** Expected Net Present Value. (iii) **Advise** Door Ltd. on whether the investment is to be undertaken.

<u>Year</u>	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>
DF @ 5%	0.952	0.907	0.864	0.823	0.784

DIVIDEND-WALTER'S MODEL

QUESTION NO.3 Following figures and information were extracted from the company A Ltd.:

Earnings of the company	₹ 10,00,000
Dividend paid	₹ 6,00,000
No. of shares outstanding	2,00,000
Price Earnings Ratio	10
Rate of return on investment	20%

You are required to calculate:

- Current Market price of the share
- Capitalisation rate of its risk class
- What should be the optimum pay-out ratio?
- What should be the market price per share at optimal pay-out ratio? (use Walter's Model)

CAPITAL BUDGETING-CAPITAL RATIONING

QUESTION NO.4 A company has ₹ 1,00,000 available for investment and has identified the following four

investments in which to invest.

<u>Project</u>	<u>Investment (₹)</u>	<u>NPV (₹)</u>
C	40,000	20,000
D	1,00,000	35,000
E	50,000	24,000
F	60,000	18,000

You are required to optimize the returns from a package of projects within the capital spending limit if-

- (i) The projects are independent of each other and are divisible.
- (ii) The projects are not divisible.

LEVERAGE

QUESTION NO.5 The Balance Sheet of Gitashree Ltd. is given below:

<u>Liabilities</u>	<u>(₹)</u>
Shareholders' fund	
Equity share capital of ₹ 10 each	1,80,000
Retained earnings	60,000
Non-current liabilities 10% debt	2,40,000
Current liabilities	1,20,000
	<u>6,00,000</u>
Assets	
Fixed Assets	4,50,000
Current Assets	1,50,000
	<u>6,00,000</u>

The company's total asset turnover ratio is 4. Its fixed operating cost is ₹ 2,00,000 and its variable operating cost ratio is 60%. The income tax rate is 30%.

- Calculate:** (i) (a) Degree of Operating leverage. (b) Degree of Financial leverage. (c) Degree of Combined leverage.
(ii) Find out EBIT if EPS is (a) ₹ 1 (b) ₹ 2 and (c) ₹ 0.

CASH MANAGEMENT-CASH BUDGET

QUESTION NO.6 Slide Ltd. is preparing a cash flow forecast for the three months period from January to the end of March. **The following sales volumes have been forecasted:**

<u>Months</u>	<u>December</u>	<u>January</u>	<u>February</u>	<u>March</u>	<u>April</u>
Sales (units)	1,800	1,875	1,950	2,100	2,250

Selling price per unit is ₹ 600. Sales are all on one month credit. Production of goods for sale takes place one month before sales. Each unit produced requires two units of raw materials costing ₹ 150 per unit. No raw material inventory is held. Raw materials purchases are on one month credit. Variable overheads and wages equal to ₹ 100 per unit are incurred during production and paid in the month of production. The opening cash balance on 1st January is expected to be ₹ 35,000. A long term loan of ₹ 2,00,000 is expected to be received in the month of March. A machine costing ₹ 3,00,000 will be purchased in March.

- (a) **Prepare** a cash budget for the months of January, February and March and calculate the cash balance at the end of each month in the three months period.
(b) **Calculate** the forecast current ratio at the end of the three months period.

COST OF CAPITAL

QUESTION NO.7 A Company wants to raise additional finance of ₹ 5 crore in the next year. The company expects to retain ₹ 1 crore earning next year. **Further details are as follows:**

- (i) The amount will be raised by equity and debt in the ratio of 3:1.
- (ii) The additional issue of equity shares will result in price per share being fixed at ₹ 25.
- (iii) The debt capital raised by way of term loan will cost 10% for the first ₹ 75 lakh and 12% for the next ₹ 50 lakh.
- (iv) The net expected dividend on equity shares is ₹ 2.00 per share. The dividend is expected to grow at the rate of 5%.
- (v) Income tax rate is 25%.

You are required:

- (a) To determine the amount of equity and debt for raising additional finance.
- (b) To determine the post-tax average cost of additional debt.
- (c) To determine the cost of retained earnings and cost of equity.
- (d) To compute the overall weighted average cost of additional finance after tax.

CAPITAL BUDGETING-NPV

QUESTION NO.8 M/s. Swastik Enterprises wants to invest in a new project. **The following information are available with regard to the new project:**

Initial Outlay of project	₹ 80,000
Annual revenues (without inflation)	₹ 60,000
Annual costs excluding depreciation (without inflation)	₹ 20,000
Useful life	4 years
Salvage value	Nil
Tax Rate	50%
Cost of Capital	12%
The expected annual rate of inflation	10%.

Determine NPV using Cash flows with inflation and decide whether the new project can be accepted or not.

Your calculations are to be rounded off to 2 decimals. **The PV factors are given below:**

Years	<u>1</u>	<u>2</u>	<u>3</u>	<u>4</u>
PVIF @ 12%	0.893	0.797	0.712	0.635

CAPITAL BUDGETING-NPV

QUESTION NO.9 M/s. Vasavi Enterprises, a garment manufacturing company is considering the introduction of a new line of manufacturing of Jeans pants with an expected life of five years. In the past the firm has been quite conservative in its investment in new projects, sticking primarily to standard garments. The new project is going to be setup in the New Industrial Area and enjoys Income Tax Holiday of 5 years.

The CEO of the company is of the opinion that the normal required rate of return for the company of 12% is not sufficient. Therefore, the minimum acceptable rate of return of this project should be 18%.

The initial outlay of the project is ₹ 10,00,000. The expected free cash flows from the project and the present value factors are given below :

Years	<u>2</u>	<u>3</u>	<u>4</u>	<u>5</u>	
Cash flows	2,00,000	3,00,000	4,00,000	3,00,000	2,00,000
PVIF @ 12%	0.893	0.797	0.712	0.636	0.567
PVIF @ 18%	0.847	0.718	0.609	0.516	0.437

- (i) As CFO of the company, justify, whether the project can be accepted?
- (ii) Will your decision change if the Government gives GST tax breaks for the first 5 years, which results in increasing

cash inflows of the company by 8% and also reduces initial cash outflow by 8%?

ECONOMICS FOR FINANCE:

QUESTION NO.1 Compute the amount of subsidies from the following data:

GDP at market price (₹ in crores)	7,79,567
Indirect Taxes (₹ in crores)	4,54,367
GDP at factor cost (₹ in crores)	3,60,815

QUESTION NO.2 Compute reserve money from the following data published by RBI:

	<u>(₹ in crores)</u>
Net RBI credit to the government	8,51,651
RBI Credit to the commercial sector	2,62,115
RBI's claim on Banks	4,10,315
Government's Currency liabilities to the public	1,85,060
RBI's net foreign assets	72,133
RBI's net non-monetary liabilities	68,032

QUESTION NO.3 The price index for exports of Bangladesh in the year 2018-19 (based on 2010-11) was 233.73 and the price index for imports of it was 220.50 (based on 2010-11)

- What do these figures mean?
- Calculate the index of terms of trade for Bangladesh.
- How would you interpret the index of terms of trade for Bangladesh ?

QUESTION NO.4 Compute NNP at factor cost or national income from the following data using income method:

	<u>(₹ in crores)</u>
Compensation of employees	3,000
Mixed income of self-employed	1,050
Indirect taxes	480
Subsidies	630
Depreciation	428
Rent	1,020
Interest	2,010
Profit	980
Net factor income from abroad	370

QUESTION NO.5 Compute credit multiplier if the Required Reserve Ratio is 10% and 12.5% for every ₹ 1,00,000 deposited in the banking system. What will be the total credit money created by the banking system in each case?

QUESTION NO 6 Calculate the Operating Surplus with the help of following data-

<u>Particulars</u>	<u>₹ (In Crore)</u>
Sales	4,000
Compensation to employees	800
Intermediate consumption	600
Rent	400
Interest	300
Net indirect taxes	500

Consumption of fixed capital	200
Mixed income	400

QUESTION NO.7 Why do pensions and other security payments get excluded while calculating National Income?

QUESTION NO.8 Suppose you are given following information-

Consumption function	$C = 10 + 0.8Y_d$
Tax	$T = 50$
Investment spending	$I = 135$
Government Spending	$G = 60$
Exports	$X = 35$
Imports	$M = 0.05 Y$

Where Y and Y_d are income and personal disposable income respectively.

Find the equilibrium level of income and net exports.

QUESTION NO.9 How are the following transactions treated in national income calculation? What is the rationale in each case?

- (i) Electricity sold to a steel plant.
- (ii) Electric power sold to a consumer household.
- (iii) A car manufacturer procuring parts and components from the market.
- (iv) A computer producer buys a robot produced in the same country and uses it in production of computers.

QUESTION NO.10 Reflect on the externalities presents in each of the following. Also examine their market implications-

- (i) A decision to stop smoking
- (ii) Switching from conventional farming to organic farming
- (iii) Started to drive a car and increased road congestion
- (iv) Water polluted by industries
- (v) Building Lighthouse

QUESTION NO.11 Suppose country X is passing through recession, what type of tax policy should be framed during this period?

QUESTION NO.12 Calculate liquidity aggregate L2 when the following information is given-

Particulars	(In Crore)
Term deposits with term lending institutions	750
Term borrowing by refinancing institutions	450
All deposits with post office savings banks	1320
Term deposits with refinancing institutions	590
Certificate of deposits issued by FIs	290
Public deposits of non-banking financial companies	450
NM3	2650
National saving certificates	240

QUESTION NO.13 Even if one nation is less efficient than the other nation in the production of all commodities, there is still scope for mutually beneficial trade. Explain in detail.

QUESTION NO.14 How are the following transactions treated in national income calculation? What is the rationale in each case?

- (i) Electricity sold to a steel plant
- (ii) Electric power sold to a consumer household
- (iii) A car manufacturer procuring parts and components from the market

QUESTION NO.15 How the following affect money multiplier and money supply?

- (i) Banks open large number ATMs all over the country.
- (ii) If banks decide to keep 100% reserves.

QUESTION NO.16 Examine the situation if aggregate expenditures exceeds the economy's production capacity.

QUESTION NO.17 An increase in investment by Rs. 700 crore leads to increase in national income by Rs 3,500 crore. Calculate marginal propensity to consume and change in saving.

QUESTION NO.18 Calculate the GNP at market price using value added method with the help of following data -

<u>Particulars</u>	<u>Rs. in crore</u>
Value of output in primary sector	1000
Net factor income from abroad	-20
Value of output in tertiary sector	700
Intermediate consumption in secondary sector	400
Value of output in secondary sector	900
Government transfer payments	600
Intermediate consumption in primary sector	500
Intermediate consumption in tertiary sector	400

QUESTION NO.19 What does the reserve money determine? Compute Reserve Money from the following data-

<u>Particulars</u>	<u>Rs. in Crore</u>
Currency in circulation	14903.90
RBI's net non-monetary liabilities	4945.80
Banker's deposits with RBI	5780.60
Other deposits with RBI	317.20
Long term deposits of residents	321.10

QUESTION NO.20 For an Economy with the following specifications

Consumption, $C = 50 + 0.75 Y_d$; Investment, $I = 100$

Government Expenditure, $G = 200$; Transfer Payments, $R = 110$; Income Tax = $0.2Y$

- (i) Find out the equilibrium of income and the value of expenditure (spending or Investment) multiplier.
- (ii) If autonomous (additional) taxes worth Rs.25 Crores are added. Find out equilibrium level of Income.
- (iii) If the economy is opened up with exports $X = 25$ and imports $M = 5 + 0.25Y$ Calculate the new level of Income and balance of Trade (Assume that there are no autonomous Taxes.)