Income Statement

Q1:

A business provides the following data for **2024**:

- **Sales Revenue**: **$100,000**
- **Cost of Goods Sold (COGS)**: **$40,000**
- **Operating Expenses**: **$20,000**
- **Interest on Loan**: **$2,500**
- **Depreciation**: **$5,000**
- **Tax Rate**: **25%**

Tasks:

1. Compute **Gross Profit, Operating Profit, and Net Profit**.
2. Prepare an **Income Statement** for the year.

Q2:

A manufacturing company reports:

- **Revenue**: **$500,000**
- **Cost of Raw Materials**: **$150,000**
- **Labor Costs**: **$120,000**
- **Factory Overheads**: **$50,000**
- **Administrative Expenses**: **$30,000**
- **Selling & Distribution Expenses**: **$20,000**
- **Depreciation**: **$15,000**
- **Loan Interest**: **$10,000**
- **Tax Rate**: **30%**

Tasks:

1. Compute **Gross Profit, Operating Profit, and Net Profit**.
2. Prepare an **Income Statement**.

Q3:

A retail store provides the following:

- **Sales Revenue**: **$200,000**
- **COGS**: **$100,000**
- **Operating Expenses**: **$50,000**
- **Interest on Bank Loan**: **$5,000**
- **Depreciation**: **$7,000**
- **Tax Rate**: **20%**
- **Dividends Paid**: **$8,000**

Tasks:

1. Calculate **Net Profit After Tax**.
2. Determine the **Retained Profit after Dividends**.
3. Prepare an **Income Statement**.

Q4:

ABC Ltd. provides financial data:

Year	Revenue ($)	COGS ($)	Expenses ($)	Interest ($)	Tax Rate (%)
2023	350,000	150,000	90,000	10,000	25%
2024	400,000	180,000	95,000	12,000	25%

Tasks:

1. Calculate **Net Profit for 2023 and 2024**.
2. Determine the **percentage increase in Net Profit**.

Q5:

XYZ Ltd. reports:

- **Revenue from Sales**: **$300,000**
- **Revenue from Investments**: **$25,000**
- **COGS**: **$120,000**
- **Operating Expenses**: **$80,000**
- **Interest on Debts**: **$8,000**
- **Depreciation**: **$10,000**
- **Tax Rate**: **30%**

Tasks:

1. Compute **Total Revenue** and **Net Profit**.

2. Prepare an **Income Statement**.

Q6:

A company sells goods worth **$600,000**, but **20% of sales are on credit**, to be received in the next year. The costs are as follows:

- **COGS**: **$250,000**
- **Operating Expenses**: **$120,000**
- **Loan Interest**: **$15,000**
- **Depreciation**: **$20,000**
- **Tax Rate**: **25%**

Tasks:

1. Compute **Net Profit, considering cash & credit sales**.
2. Prepare an **Income Statement**.

Q7:

A business earns revenue in different quarters:

Quarter	Revenue ($)	COGS ($)	Expenses ($)	Interest ($)	Tax Rate (%)
Q1	80,000	40,000	20,000	5,000	20%
Q2	120,000	50,000	30,000	6,000	20%
Q3	100,000	60,000	25,000	7,000	20%
Q4	150,000	70,000	35,000	8,000	20%

Tasks:

1. Compute **Net Profit for each quarter**.
2. Prepare an **Annual Income Statement**.

Q8:

A company earns **$400,000** in revenue, with the following costs:

- **COGS**: **$180,000**

- **Expenses**: **$90,000**
- **Interest Paid**: **$12,000**
- **Depreciation**: **$15,000**
- **Tax Rate**: **Progressive system**:
    - First **$50,000** at **10%**
    - Next **$100,000** at **20%**
    - Remaining at **30%**

Tasks:

1. Compute **Net Profit after Tax**.
2. Prepare an **Income Statement**.

Q9:

A company reports:

- **Revenue**: **$800,000**
- **COGS**: **$300,000**
- **Operating Expenses**: **$250,000**
- **Legal Settlement Costs**: **$50,000**
- **Loan Interest**: **$30,000**
- **Depreciation**: **$20,000**
- **Tax Rate**: **25%**

Tasks:

1. Compute **Net Profit** after including extraordinary expenses.
2. Prepare an **Income Statement**.

Q10:

ABC Ltd. operates in two divisions:

Division	Revenue ($)	COGS ($)	Expenses ($)
Retail	500,000	200,000	120,000
Wholesale	400,000	150,000	100,000

Additional costs:

- **Depreciation**: **$30,000**
- **Interest**: **$20,000**

- **Tax Rate**: **25%**

Tasks:

1. Compute **Gross Profit & Net Profit for each division**.
2. Prepare a **consolidated Income Statement**.

Now, I'll provide **10 calculation-based Balance Sheet questions**. Each question will focus on key Balance Sheet elements like **assets, liabilities, equity, retained earnings, depreciation, and financial ratios**.

Balance Sheet – 10 Calculation-Based Questions

Q1:

XYZ Ltd. provides the following financial data:

- **Non-Current Assets**: **$200,000**
- **Accumulated Depreciation**: **$40,000**
- **Current Assets**:
    - Cash: **$30,000**
    - Accounts Receivable: **$50,000**
    - Inventory: **$60,000**
- **Current Liabilities**: **$55,000**
- **Non-Current Liabilities**: **$90,000**
- **Share Capital**: **$120,000**
- **Retained Earnings**: **To be calculated**

Tasks:

1. Compute **Net Assets** and **Retained Earnings**.
2. Prepare a **Balance Sheet** for XYZ Ltd.

Q2:

ABC Enterprises reports the following financial details:

- **Fixed Assets**: **$500,000**
- **Accumulated Depreciation**: **$100,000**
- **Current Assets**:
    - Cash: **$40,000**

    - Accounts Receivable: **$80,000**
    - Inventory: **$100,000**
- **Current Liabilities**: **$70,000**
- **Non-Current Liabilities (Long-Term Loan)**: **$150,000**
- **Share Capital**: **$200,000**
- **Retained Profit**: **To be calculated**

Tasks:

1. Compute the **Retained Profit**.
2. Prepare a **Balance Sheet**.

Q3:

A company's financial details for 2024 are:

- **Machinery Cost**: **$600,000**
- **Depreciation (20%)**: **To be calculated**
- **Current Assets**:
    - Cash: **$50,000**
    - Inventory: **$75,000**
    - Accounts Receivable: **$85,000**
- **Current Liabilities**: **$60,000**
- **Long-Term Liabilities**: **$250,000**
- **Share Capital**: **$300,000**
- **Retained Earnings**: **$95,000**

Tasks:

1. Compute **Accumulated Depreciation** and **Net Machinery Value**.
2. Prepare a **Balance Sheet**.

Q4:

A business has the following financial data:

- **Non-Current Assets**: **$450,000**
- **Depreciation**: **$50,000**
- **Current Assets**: **$200,000**
- **Tax Payable**: **$30,000**
- **Dividends Declared but Unpaid**: **$15,000**
- **Short-Term Liabilities**: **$90,000**
- **Long-Term Loan**: **$180,000**
- **Share Capital**: **$250,000**
- **Retained Earnings**: **To be calculated**

Tasks:

1. Compute **Retained Earnings**.
2. Prepare a **Balance Sheet**.

Q5:

A business revalues its property from **$500,000 to $600,000**. Other financial details include:

- **Depreciation on Other Fixed Assets**: **$20,000**
- **Current Assets**: **$150,000**
- **Liabilities**: **$250,000**
- **Share Capital**: **$300,000**
- **Retained Earnings Before Revaluation**: **$80,000**

Tasks:

1. Compute the **Revaluation Surplus** and update **Equity**.
2. Prepare a **Balance Sheet**.

Q6:

A firm converts a **$100,000 loan** into equity. The revised financials are:

- **Non-Current Assets**: **$700,000**
- **Accumulated Depreciation**: **$100,000**
- **Current Assets**: **$250,000**
- **Current Liabilities**: **$150,000**
- **Long-Term Loan (Before Conversion)**: **$200,000**
- **Share Capital (Before Conversion)**: **$300,000**
- **Retained Earnings**: **$120,000**

Tasks:

1. Compute **New Share Capital & Long-Term Liabilities**.
2. Prepare an updated **Balance Sheet**.

Q7:

A company's cash flow data shows:

- **Opening Cash Balance**: **$20,000**
- **Cash Inflows from Operations**: **$150,000**
- **New Loan Taken**: **$50,000**

- **Cash Outflows**: **$100,000**

Other financial data:

- **Non-Current Assets**: **$600,000**
- **Accumulated Depreciation**: **$120,000**
- **Other Current Assets**: **$180,000**
- **Liabilities**: **$300,000**
- **Shareholder's Equity**: **To be calculated**

Tasks:

1. Compute **Closing Cash Balance**.
2. Prepare an updated **Balance Sheet**.

Q8:

A company reports:

- **Previous Inventory Value**: **$100,000**
- **New Purchases**: **$50,000**
- **Goods Sold from Inventory**: **$80,000**
- **Depreciation on Fixed Assets**: **$30,000**
- **Other Assets**: **$200,000**
- **Liabilities**: **$220,000**
- **Equity (Before Inventory Adjustments)**: **$170,000**

Tasks:

1. Compute the **Updated Inventory Value**.
2. Prepare a **Balance Sheet**.

Q9:

A company provides the following financials:

Item	2023 ($)	2024 ($) (To be calculated)
Non-Current Assets	500,000	?

Current Assets	200,000	?
Current Liabilities	80,000	?
Long-Term Liabilities	150,000	?
Shareholder’s Equity	250,000	?

Additional changes:

- **Depreciation on Non-Current Assets**: **$50,000**
- **Current Assets increased by 10%**
- **Current Liabilities reduced by 5%**
- **Retained Earnings increased by $20,000**

Tasks:

1. Compute the **updated Balance Sheet for 2024**.
2. Identify **major financial changes**.

Q10:

A company declares dividends of **$40,000**, but only **50% is paid**. Other details:

- **Total Assets**: **$800,000**
- **Liabilities**: **$300,000**
- **Share Capital**: **$350,000**
- **Retained Earnings Before Dividend Adjustments**: **$200,000**

Tasks:

1. Compute **Retained Earnings After Dividends**.
2. Prepare a **Balance Sheet**.

Ratio Analysis Questions:

Questions

A company has sales revenue of $500,000 and the cost of goods sold (COGS) is $300,000.

- **Calculate the Gross Profit Margin.**

A company has sales revenue of $400,000, cost of goods sold (COGS) of $250,000, operating expenses of $80,000, and interest expenses of $10,000. The company's tax expense is $15,000.

- **Calculate the Net Profit Margin.**

A company has net profit of $60,000 and capital employed (total assets minus current liabilities) of $500,000.

- **Calculate the Return on Capital Employed (ROCE).**

A company has current assets of $200,000 and current liabilities of $150,000.

- **Calculate the Current Ratio.**

A company has current assets of $250,000, inventory of $80,000, and current liabilities of $150,000.

- **Calculate the Acid Test Ratio.**

A company has credit sales of $600,000 and average trade receivables of $120,000.

- **Calculate the Trade Receivables Turnover.**

A company has credit purchases of $400,000 and average trade payables of $100,000.

- **Calculate the Trade Payables Turnover.**

A company has cost of goods sold (COGS) of $500,000 and average inventory of $100,000.

- **Calculate the Rate of Inventory Turnover.**

A company has total liabilities of $600,000 and shareholders' equity of $400,000.

- **Calculate the Gearing Ratio.**

Cash Flow Questions:

Questions

1.

A company is expecting the following for the next 3 months:

- **Revenue:**
  - January: $50,000 (80% on credit, 20% cash)
  - February: $60,000 (70% on credit, 30% cash)
  - March: $55,000 (75% on credit, 25% cash)
- **Expenses:**
  - Rent: $5,000 (paid quarterly in January)
  - Wages: $10,000 (paid monthly)
  - Utilities: $2,000 (paid monthly)
  - Marketing: 10% of monthly revenue (paid monthly)
  - Purchases: 50% of monthly revenue (paid bi-monthly: 1st and 15th of each month)

The opening balance for January is $20,000.

- **Prepare a cash flow forecast for the next 3 months and calculate the closing balance for each month.**

2.

A business expects the following for the next quarter:

- **Revenue:**
  - April: $80,000 (60% on credit, 40% cash)
  - May: $90,000 (50% on credit, 50% cash)
  - June: $85,000 (65% on credit, 35% cash)
- **Expenses:**

    - Rent: $6,000 (paid quarterly in April)
    - Wages: $12,000 (paid monthly)
    - Utilities: $3,000 (paid monthly)
    - Marketing: 15% of monthly revenue (paid monthly)
    - Purchases: 60% of monthly revenue (paid bi-monthly)

The opening balance for April is $30,000.

- **Prepare a cash flow forecast for the next 3 months and determine the closing balance for each month.**

3.

A company has the following expected cash flows for the next 6 months:

- **Revenue:**
    - July: $100,000 (70% on credit, 30% cash)
    - August: $120,000 (75% on credit, 25% cash)
    - September: $130,000 (65% on credit, 35% cash)
    - October: $110,000 (60% on credit, 40% cash)
    - November: $105,000 (50% on credit, 50% cash)
    - December: $115,000 (55% on credit, 45% cash)
- **Expenses:**
    - Rent: $8,000 (paid quarterly in July)
    - Wages: $15,000 (paid monthly)
    - Utilities: $4,000 (paid monthly)
    - Marketing: 8% of monthly revenue (paid monthly)
    - Purchases: 55% of monthly revenue (paid bi-monthly)

The opening balance for July is $25,000.

- **Prepare a cash flow forecast for the next 6 months and calculate the ending balance for each month.**

4.

A company expects the following for the next 3 months:

- **Revenue:**
    - January: $70,000 (65% on credit, 35% cash)
    - February: $65,000 (60% on credit, 40% cash)
    - March: $80,000 (50% on credit, 50% cash)
- **Expenses:**
    - Rent: $4,500 (paid quarterly in January)
    - Wages: $8,000 (paid monthly)
    - Utilities: $1,500 (paid monthly)

    - Marketing: 5% of monthly revenue (paid monthly)
    - Purchases: 40% of monthly revenue (paid bi-monthly)

The opening balance for January is $10,000.

- **Prepare the cash flow forecast for the next 3 months and calculate the closing balance for each month.**

5.

A business has the following cash inflows and outflows for the next 2 months:

- **Revenue:**
    - August: $90,000 (55% on credit, 45% cash)
    - September: $95,000 (50% on credit, 50% cash)
- **Expenses:**
    - Rent: $5,000 (paid quarterly in August)
    - Wages: $10,000 (paid monthly)
    - Utilities: $2,500 (paid monthly)
    - Marketing: 12% of monthly revenue (paid monthly)
    - Purchases: 50% of monthly revenue (paid bi-monthly)

The opening balance for August is $15,000.

- **Prepare a cash flow forecast and calculate the closing balances for August and September.**

Investment Appraisal Questions

1.

A company is considering an investment in a new project that will require an initial investment of $50,000. The project will generate the following annual cash flows over the next 3 years: Year 1: $20,000, Year 2: $15,000, Year 3: $10,000. The company uses a discount rate of 8%.

- **Calculate the NPV of the investment.**

Discount Factors (8%) for each year:

Year	Discount Factor
1	0.9259
2	0.8573
3	0.7938

2.

A company is evaluating an investment in a machine costing $150,000. The machine will generate the following cash inflows over the next 4 years: Year 1: $60,000, Year 2: $50,000, Year 3: $40,000, Year 4: $30,000.

- **Calculate the payback period of the investment.**

3.

A company is considering an investment that will cost $120,000. The project will generate the following cash flows over the next 4 years: Year 1: $50,000, Year 2: $40,000, Year 3: $30,000, Year 4: $20,000. The required rate of return is 10%.

- **Calculate the NPV of the project.**

Discount Factors (10%) for each year:

Year	Discount Factor
1	0.9091
2	0.8264

3	0.7513
4	0.6830

4.

A business is considering an investment that costs $200,000. The project will generate annual profits of $50,000 for 6 years.

- **Calculate the Average Rate of Return (ARR) of the investment.**

5.

A company is evaluating an investment requiring an initial outlay of $500,000. The project is expected to generate the following cash flows: Year 1: $150,000, Year 2: $100,000, Year 3: $75,000, Year 4: $50,000, Year 5: $25,000. The required rate of return is 15%.

- **Calculate the NPV of the investment.**

Discount Factors (15%) for each year:

Year	Discount Factor
1	0.8696
2	0.7561
3	0.6575
4	0.5718

5	0.4972

6.

A company is considering an investment in a new product line costing $250,000. The expected cash inflows over the next 5 years are as follows: Year 1: $70,000, Year 2: $80,000, Year 3: $60,000, Year 4: $40,000, Year 5: $30,000.

- **Calculate the payback period for this investment.**

7.

A company is evaluating a project that will require an initial investment of $300,000. The project is expected to generate the following annual cash flows for the next 4 years: Year 1: $100,000, Year 2: $100,000, Year 3: $75,000, Year 4: $50,000. The required rate of return is 12%.

- **Calculate the NPV of the investment.**

Discount Factors (12%) for each year:

Year	Discount Factor
1	0.8929
2	0.7972
3	0.7118
4	0.6355

8.

A company is considering an investment of $120,000 in a project that will generate the following annual profits: Year 1: $30,000, Year 2: $40,000, Year 3: $50,000, Year 4: $60,000.

- **Calculate the Average Rate of Return (ARR) for the investment.**

9.

A company is considering an investment that requires an initial outlay of $500,000. The project is expected to generate the following annual cash flows: Year 1-5: $120,000 each year. The required rate of return is 10%.

- **Calculate the NPV of the investment.**

Discount Factors (10%) for each year:

Year	Discount Factor
1	0.9091
2	0.8264
3	0.7513
4	0.6830
5	0.6209

10.

An investor is considering purchasing a property for $500,000. The property is expected to generate annual rental income of $80,000 for 10 years. The investor expects to sell the property after 10 years for $600,000.

- **Calculate the Average Rate of Return (ARR) on this investment.**

Budget Questions:

Questions

1.

A company has set the following budget for the year:

- Sales: $500,000
- Cost of Goods Sold (COGS): $300,000
- Operating Expenses: $100,000
- Expected Profit: $100,000

At the end of the year, the actual figures are:

- Sales: $520,000
- COGS: $310,000
- Operating Expenses: $95,000
- **Calculate the sales variance, COGS variance, operating expenses variance, and overall profit variance.**

2.

A business has a budgeted sales revenue of $300,000 for the month. The actual sales revenue turned out to be $290,000. The budgeted variable cost ratio is 60%, and the fixed costs are budgeted to be $50,000.

- **Calculate the sales volume variance, sales price variance, and the total variance.**

3.

A company's budgeted direct material cost for producing 10,000 units is $50,000. The actual direct material cost for producing 9,500 units was $48,000.

- **Calculate the material price variance and material usage variance.**

4.

A company has the following budgeted and actual figures:

- Budgeted units sold: 15,000
- Budgeted selling price: $20
- Budgeted variable cost per unit: $12
- Budgeted fixed costs: $30,000

Actual results are:

- Units sold: 16,000
- Actual selling price: $22
- Actual variable cost per unit: $11
- Actual fixed costs: $32,000
- **Calculate the sales price variance, sales volume variance, variable cost variance, and fixed cost variance.**

5.

A company budgeted to sell 25,000 units at $15 each. The actual sales were 23,000 units at $14 each. The budgeted variable costs were $7 per unit, and fixed costs were $50,000.

- **Calculate the total sales variance, the sales volume variance, and the sales price variance.**

6.

A business planned to produce 10,000 units with a total material cost budget of $40,000. However, actual production was 9,500 units, with an actual material cost of $38,000.

- **Calculate the material price variance and material efficiency variance.**

7.

A company planned for a total labor cost of $75,000 for 10,000 hours of labor. The actual labor cost for 9,500 hours worked was $74,000.

- **Calculate the labor rate variance and labor efficiency variance.**

8.

A company has the following budgeted and actual figures:

- Budgeted sales: $400,000
- Actual sales: $450,000
- Budgeted variable cost: $240,000
- Actual variable cost: $270,000
- Budgeted fixed cost: $50,000
- Actual fixed cost: $55,000
- **Calculate the contribution margin variance and the overall profit variance.**

9.

A company's budget for direct labor costs was $100,000 for 8,000 hours. The actual direct labor costs were $90,000 for 7,500 hours.

- **Calculate the labor cost variance and the labor efficiency variance.**

10.

A company expected to sell 30,000 units of product at $10 per unit. The actual sales were 32,000 units at $9.50 per unit. The budgeted variable cost per unit was $5, and the fixed costs were $100,000.

- **Calculate the sales variance, volume variance, and price variance for sales.**