Financial Statement Analysis Examination January 2025

I. Circle the right answer. Only one answer is correct [4 points * 8 = 32].

1. Which of the following is *the least likely* an essential characteristic of an asset:

A/B

   a) an asset must be paid for.
   b) an asset is tangible.
   c) an asset provides future benefits.
   d) an asset is obtained at cost.

2. If a company is constructing a building in which it will conduct its main operating activities and must take a long-term bank loan to finance the construction, then:

C

   a) the building is classified as PPE and interest is expensed.
   b) the building is classified as long-term investment and interest is expensed.
   c) the building is classified as PPE and interest is capitalized.
   d) the building is classified as inventory and interest is recorded as liability.

3. An example of deferred income (unearned revenue) is not

C

   a) pre-payment from a client for future deliveries.
   b) a subsidy for the future purchase of PPE.
   c) materials purchased on trade credit.
   d) a negative goodwill arising from a purchase of another entity.

4. A firm's financial position at a specific point in time is reported in the:

B

   a) income statement.
   b) balance sheet.
   c) cash flow statement.
   d) statement of changes in equity.

5. In the Cash Flow Statement issuing bonds is classified as:

C

   a) investing cash flow.
   b) operating cash flow.
   c) financing cash flow.
   d) this transaction does not appear on cash flow statement.

6. Under IFRS development costs which are incurred to translate research findings into a plan or design of a new product or process are:

B

   a) expensed.
   b) capitalized.
   c) recorded as a revenue.
   d) recorded as a cash outflow.

7. Six main steps of proper financial statement analysis do not include:

C

   a) stating the purpose of the analysis.
   b) providing recommendations.
   c) doing sign analysis.
   d) analysing and interpreting the data.

1. Which of the following is *the least likely* an essential characteristic of an asset?

- **Your answer:** (a) An asset must be paid for. ✅
- **Teacher's answer: A/B**
- **Correct answer:** (a) An asset must be paid for. ✅
- **Explanation:** An asset can be acquired in ways other than paying for it (e.g., donations). The key characteristics of an asset are tangibility, future benefits, and being obtained at cost.

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2. If a company is constructing a building in which it will conduct its main operating activities and takes a long-term bank loan to finance the construction, then:

- **Your answer:** (b) The building is classified as PPE, and interest is capitalized. ✅
- **Teacher's answer: C**
- **Correct answer:** (c) The building is classified as PPE, and interest is capitalized. ✅
- **Explanation:** Under IFRS and GAAP, interest on loans used for constructing a PPE (Property, Plant, and Equipment) asset is capitalized.

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3. An example of deferred income (unearned revenue) is *not*:

- **Your answer:** (c) Materials purchased on trade credit. ✅
- **Teacher's answer: C**
- **Correct answer:** (c) Materials purchased on trade credit. ✅
- **Explanation:** Deferred income refers to cash received before delivering goods/services. Purchasing on credit is a liability, not unearned revenue.

4. A firm's financial position at a specific point in time is reported in the:

- **Your answer:** (b) Balance sheet. ✅
- **Teacher's answer: B**
- **Correct answer:** (b) Balance sheet. ✅
- **Explanation:** The balance sheet (statement of financial position) provides a snapshot of a company's assets, liabilities, and equity.

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5. In the Cash Flow Statement, issuing bonds is classified as:

- **Your answer:** (c) Financing cash flow. ✅
- **Teacher's answer: C**
- **Correct answer:** (c) Financing cash flow. ✅
- **Explanation:** Issuing bonds generates cash through financing activities, making it part of financing cash flow.

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6. Under IFRS, development costs incurred to translate research findings into a plan or design of a new product or process are:

- **Your answer:** (b) Capitalized. ✅
- **Teacher's answer: B**
- **Correct answer:** (b) Capitalized. ✅
- **Explanation:** Research costs are expensed, but development costs meeting certain criteria can be capitalized under IFRS.

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7. Six main steps of proper financial statement analysis do *not* include:

- **Your answer:** (b) Providing recommendations. ✅
- **Teacher's answer: B**
- **Correct answer:** (b) Providing recommendations. ✅
- **Explanation:** Financial statement analysis involves evaluation and interpretation, but recommendations are not formally part of the process.

8. A firm recently recognized $15,000 loss on the sale of machinery used in its manufacturing operation. The original cost of the machinery was $100,000 and accumulated depreciation at the date of the sale was $60,000. What amount did the firm receive from sale?

a) $25,000.
b) $45,000. ✓
c) $60,000.
d) $85,000.

II. In December 2020, company purchased a production line for $240 000. The company applies straight-line depreciation over 6-year period for financial accounting purposes and 20% depreciation for tax purposes. Assume the production line was put into use in December 2020 and first depreciation was recorded in January of 2021. [18 points]

Required:

(a) Calculate depreciation for 2021, 2022 and 2023 for tax and financial accounting purposes.
(b) Assume the annual revenue for years 2021, 2022 and 2023 amounted to $180 000 per year. Calculate the amount of income tax expense and income tax payable for years 2021, 2022 and 2023.
(c) Calculate the deferred income tax in each year 2021, 2022 and 2023.

Let's go step by step to answer these questions.

Question 8: Machinery Sale Calculation

Given Data:

- **Original Cost of Machinery** = $100,000
- **Accumulated Depreciation at Sale** = $60,000
- **Book Value at Sale** = $100,000 - $60,000 = **$40,000**
- **Loss on Sale** = $15,000
- **Sale Price = Book Value - Loss**

$$40,000 - 15,000 = 25,000$$

Answer:

The firm received **$25,000** from the sale.

However, the answer marked as correct on the paper is **$45,000.** This seems incorrect based on the data provided. Could you confirm if there's any missing information?

Exercise II: Depreciation & Tax Calculations

Given Data:

- **Cost of Production Line** = $240,000
- **Straight-Line Depreciation (Financial Reporting)** = Over 6 years
- **Tax Depreciation** = 20% per year (Declining Balance Method)
- **First Depreciation Year** = 2021
- **Annual Revenue for 2021, 2022, and 2023** = $180,000 per year

(a) Calculate Depreciation for 2021, 2022, and 2023

1. **Financial Accounting (Straight-Line Depreciation)**

$$\text{Annual Depreciation} = \frac{\$240,000}{6} = \$40,000 \text{ per year}$$

   - **2021:** $40,000
   - **2022:** $40,000
   - **2023:** $40,000

2. **Tax Depreciation (20% Declining Balance Method)**
   - **2021:** $20\% \times 240,000 = 48,000$
   - **2022:** $20\% \times (240,000 - 48,000) = 20\% \times 192,000 = 38,400$
   - **2023:** $20\% \times (192,000 - 38,400) = 20\% \times 153,600 = 30,720$

(b) Income Tax Expense & Income Tax Payable

Assume **Income Tax Rate = 30%.**

1. **Income Before Depreciation**
   - Revenue = **$180,000**
   - Assume no other expenses except depreciation.

2. **Taxable Income for Financial & Tax Accounting**
   - **Financial Reporting Income:**

$$180,000 - 40,000 = 140,000$$

   - **Taxable Income (For Tax Purposes):**
     - **2021:** $180,000 - 48,000 = 132,000$
     - **2022:** $180,000 - 38,400 = 141,600$
     - **2023:** $180,000 - 30,720 = 149,280$

3. **Income Tax Expense (Based on Financial Reporting)**

$$140,000 \times 30\% = 42,000$$

   (Same for all years since depreciation is constant)

4. **Income Tax Payable (Based on Taxable Income)**
    - **2021:** $132,000 \times 30\% = 39,600$
    - **2022:** $141,600 \times 30\% = 42,480$
    - **2023:** $149,280 \times 30\% = 44,784$

(c) Deferred Income Tax Calculation

Deferred Tax = **(Tax Expense - Tax Payable)**

- **2021:** $42,000 - 39,600 = 2,400$ (Deferred Tax Liability)
- **2022:** $42,000 - 42,480 = -480$ (Deferred Tax Asset)
- **2023:** $42,000 - 44,784 = -2,784$ (Deferred Tax Asset)

Final Answers:

(a) Depreciation

Year	Financial Depreciation	Tax Depreciation
2021	$40,000	$48,000
2022	$40,000	$38,400
2023	$40,000	$30,720

(b) Income Tax Calculation

Year	Income Before Depreciation	Financial Taxable Income	Taxable Income (Tax Reporting)	Tax Expense (Financial)	Tax Payable (Tax Reporting)
2021	$180,000	$140,000	$132,000	$42,000	$39,600
2022	$180,000	$140,000	$141,600	$42,000	$42,480
2023	$180,000	$140,000	$149,280	$42,000	$44,784

(c) Deferred Income Tax

Year	Deferred Tax Liability (Asset)
2021	**$2,400** (Liability)
2022	**-$480** (Asset)
2023	**-$2,784** (Asset)

III. Assume you are conducting a financial statement analysis of wood furniture manufacturer. The topic of your analysis is: „Are shares of wood furniture manufacturer a good investment opportunity?" List and explain three macro-economic factors and three micro-economic factors and two risks, which are most important to consider when analyzing such a company. Factors listed without an explanation will not be considered. [20 points]

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	2023	2022
a)	$\frac{137\,213}{89\,288} = 1{,}53$	$\frac{101288}{95916} = 1{,}056$
b)	$\frac{[(11177+10952)/2] \times 365}{58496} = 69{,}04$	$\frac{10952 \times 365}{100330} = 39{,}84$
c)	$\frac{2119}{58496} = 3{,}622\%$	$\frac{31372}{100\,330} = 31{,}27\%$
d)	$\frac{43\,333}{47\,794} = 90{,}67$	$\frac{51259}{42\,138} = 121{,}64$
e)	$\frac{2119}{211853} = 1{,}000\%$	$\frac{31372}{197205} = 15{,}91\%$

IV. Based on the financial statements below compute and interpret the ratios for the years 2023 and 2022 for Pfizer, a drug manufacturer and seller. Note: If you cannot compute the average because the 2021 data is missing, please compute the ratio based on the data in one year only and state this in your answer [5 points * 6 = 30].

3 3

a) debt to equity ratio = total liabilities / total equity

b) receivable turnover in days = [average receivables * 365 days] / annual sales

c) net profit margin = net income / revenue

d) current ratio = current assets / current liabilities

e) return on assets = net income / average total assets

IV. Financial Ratios for Pfizer (2023 & 2022)

(a) Debt to Equity Ratio

$$\text{Debt to Equity Ratio} = \frac{\text{Total Liabilities}}{\text{Total Equity}}$$

From the **Balance Sheet:**

- **2023:**
  - Total Liabilities = **$137,213$ million**
  - Total Equity = **$89,288$ million**
  - **Debt to Equity (2023)** = $\frac{137,213}{89,288} = 1.54$
- **2022:**
  - Total Liabilities = **$101,288$ million**
  - Total Equity = **$95,916$ million**
  - **Debt to Equity (2022)** = $\frac{101,288}{95,916} = 1.06$

(b) Receivable Turnover in Days

$$\text{Receivable Turnover in Days} = \frac{\text{Average Receivables} \times 365}{\text{Annual Sales}}$$

From the **Balance Sheet:**

- **2023:** Accounts Receivable = **470 million**
- **2022:** Accounts Receivable = **449 million**
- **Average Receivables** = $\frac{470+449}{2} = 459.5$ million

From the **Income Statement:**

- **Annual Sales (Revenue)**:
  - **2023:** $58,496$ million
  - **2022:** $100,330$ million

Calculation:

- **2023:**

$$\frac{(470+449)/2 \times 365}{58,496} = \frac{459.5 \times 365}{58,496} = 2.87 \text{ days}$$

- **2022:**

$$\frac{(470+449)/2 \times 365}{100,330} = \frac{459.5 \times 365}{100,330} = 1.67 \text{ days}$$

(c) Net Profit Margin

$$\text{Net Profit Margin} = \frac{\text{Net Income}}{\text{Revenue}} \times 100$$

From the **Income Statement:**

- **2023:** Net Income = **$2,119$ million**, Revenue = **$58,496$ million**
- **2022:** Net Income = **$31,372$ million**, Revenue = **$100,330$ million**

Calculation:

- **2023:**

$$\frac{2,119}{58,496} \times 100 = 3.62\%$$

- **2022:**

$$\frac{31,372}{100,330} \times 100 = 31.29\%$$

(d) Current Ratio

$$\text{Current Ratio} = \frac{\text{Current Assets}}{\text{Current Liabilities}}$$

From the **Balance Sheet:**

- **2023:**
  - Current Assets = **$43,333$ million**
  - Current Liabilities = **$47,794$ million**
  - **Current Ratio (2023)** = $\frac{43{,}333}{47{,}794} = 0.91$
- **2022:**
  - Current Assets = **$42,138$ million**
  - Current Liabilities = **$42,558$ million**
  - **Current Ratio (2022)** = $\frac{42{,}138}{42{,}558} = 0.99$

(e) Return on Assets (ROA)

$$\text{ROA} = \frac{\text{Net Income}}{\text{Average Total Assets}} \times 100$$

From the **Balance Sheet:**

- **Total Assets:**
    - **2023: $226,501$ million**
    - **2022: $197,205$ million**
    - **Average Assets** = $\frac{226{,}501+197{,}205}{2} = 211,853$ million

From the **Income Statement:**

- **Net Income (2023):** $2,119$ million
- **Net Income (2022):** $31,372$ million

Calculation:

- **2023:**

$$\frac{2,119}{211,853} \times 100 = 1.00\%$$

- **2022:**

$$\frac{31,372}{197,205} \times 100 = 15.91\%$$

Final Summary of Ratios for Pfizer (2023 & 2022)

Ratio	2023 Value	2022 Value
Debt to Equity Ratio	1.54	1.06
Receivable Turnover in Days	2.87 days	1.67 days
Net Profit Margin	3.62%	31.29%
Current Ratio	0.91	0.99
Return on Assets (ROA)	1.00%	15.91%

III. Assume you are conducting a financial statement analysis of wood furniture manufacturer. The topic of your analysis is: „Are shares of wood furniture manufacturer a good investment opportunity?" List and explain three macro-economic factors and three micro-economic factors and two risks, which are most important to consider when analyzing such a company. Factors listed without an explanation will not be considered. [20 points]

(a) Three Macroeconomic Factors:

1. **Interest Rates & Inflation**
   - Higher interest rates make borrowing more expensive for furniture manufacturers, leading to lower profitability.
   - Inflation increases costs of raw materials (wood, adhesives, transportation), affecting profit margins.
2. **Consumer Demand & Housing Market Trends**
   - The demand for furniture is closely linked to the real estate market. If home purchases increase, furniture sales also rise.
   - Economic downturns lead to lower disposable incomes, reducing consumer spending on furniture.
3. **Global Supply Chain & Trade Regulations**
   - Wood prices fluctuate due to global supply chain disruptions, environmental regulations, and import/export tariffs.
   - If a manufacturer relies on imported wood, tariffs or shortages can increase production costs.

(b) Three Microeconomic Factors:

1. **Company's Cost Structure & Pricing Power**
   - Does the company have a strong cost advantage compared to competitors?
   - If production costs rise, can the company pass those costs to consumers without losing sales?
2. **Brand Recognition & Market Position**
   - A well-known brand can command higher prices and maintain customer loyalty.
   - Smaller manufacturers struggle against large retailers like IKEA and Wayfair.
3. **Production Efficiency & Inventory Management**
   - Efficient production reduces waste and maximizes profit.
   - High inventory turnover indicates strong demand, while excess inventory suggests weak sales.

(c) Two Key Risks to Consider:

1. **Raw Material Price Volatility**
   - The company is dependent on wood, which is subject to price fluctuations due to deforestation policies, supply shortages, and climate factors.
   - Rising costs could reduce profit margins unless prices are adjusted accordingly.
2. **Competition & Market Saturation**
   - The furniture industry is highly competitive, with established brands and online retailers.
   - If the company lacks a competitive advantage, maintaining profitability can be difficult.

Final Thoughts:

If a wood furniture manufacturer has **strong demand, efficient production, and a competitive market position**, it may be a **good investment opportunity**. However, risks like **raw material price fluctuations, competition, and economic downturns** must be carefully considered.

Would you like me to refine or expand any section? 😊