



BAS357: Economic Decision Analysis

Midterm Mock Exam

curated by The Peanuts

Name . Nonpeanut ID . 6622772466 Section 1 Seat No 1

Conditions: Semi-Closed Book

Directions:

1. This exam contains 10 pages (including this one). If yours has fewer, congratulations, you've discovered the art of missing pages.
2. Write your name and student ID clearly at the top.
3. **Show all calculations.** Answers without supporting work will not receive full credit. This isn't a guessing game — show your steps.
4. Round all numerical answers to **two decimal places** (e.g., 218.15, not 218 or 218.1).
5. Where NPV is required, the relevant Present Value tables (Exhibit 26-3 and Exhibit 26-4) are provided within the question.
6. You have **2 hours** to complete this exam. Manage your time wisely — approximately 20–23 minutes per problem is recommended.
7. If a number is negative (a cash outflow or a loss), enclose it in **parentheses** — e.g., $\$(-14,000)$.

For solution, [click here](#).

Part I: Written Problems

Show all calculations. Round answers to two decimal places. Enclose all cash outflows and losses in parentheses, e.g., \$(14,000).

Question 1 (20 points)

Maple Tech Solutions, Inc. performs adjusting entries every month but closes its accounts only at year-end. The company's year-end adjusted trial balance dated December 31, 2025, is shown below.

Maple Tech Solutions, Inc.
Adjusted Trial Balance
December 31, 2025

Account	Debit	Credit
Cash	\$95,000	
A { Accounts Receivable	18,000	
Supplies	2,500	
Equipment	48,000	
Accumulated Depreciation: Equipment		\$16,000
L { Accounts Payable		6,500
Income Taxes Payable		4,000
Notes Payable (due 2027) <small>NON current မျှမှု</small>		12,000
O { Capital Stock		70,000
Retained Earnings <small>update</small>		55,500
Dividends	5,000	
Service Revenue		95,000
Salary Expense	62,000	
Supply Expense	3,200	
Advertising Expense	8,800	
Depreciation Expense: Equipment	4,000	
Income Taxes Expense	12,500	
Total	\$259,000	\$259,000

Using the information above, prepare the following financial statements. Use proper headings for each statement.

- (a) Prepare the **Income Statement** for the year ended December 31, 2025.

Maple Tech Solution, Inc Income Statement December 31, 2025		
Revenue :		
Service Revenue		\$ 95,000
Expense :		
Salary Expense	\$ 62,000	
Supply Expense	3,200	
Advertising Expense	8,800	
Depreciation Expense : Equipment	4,000	\$ 78,000
Income before taxes		17,000
Income taxes expense		12,500
Net Income		4,500

- (b) Prepare the **Statement of Retained Earnings** for the year ended December 31, 2025.

Maple Tech Solution, Inc Statement of Retained Earnings December 31, 2025		
Retained Earnings, January 1, 2025	\$ 55,000	
Add: Net income	4,500	
total	59,500	-
Less: Dividends	5,000	
Retained Earnings, December 31, 2025	55,500	

- (c) Prepare the **Balance Sheet** as of December 31, 2025. Classify assets and liabilities as current or non-current where appropriate.

Maple Tech Solution, Inc Balance Sheet December 31, 2025		
Assets :		
Cash		\$ 95,000
Accounts Receivable		18,000
Supplies		2,500
Equipment	\$ 48,000	
Accumulated Depreciation : Equipment	16,000	\$ 32,000
Total Assets :		147,500
Liabilities :		
Acc Payable		6,500
Income Taxes Payable		4,000
Note payable		12,000
Total L		22,500
Stakeholder's Equity		70,000
Capital Stock		55,000
Retained Earnings		125,000
Total E		195,000
Total L & E		147,500

Question 2

(20 points)

The accounting staff of James Distribution Co. has assembled the following information for the year ended December 31, 2025.

Item	Amount
Cash and cash equivalents, January 1, 2025	\$30,000
Cash and cash equivalents, December 31, 2025	67,500
Cash received from customers	620,000
Cash paid to suppliers and employees	498,000
Interest and dividends received	15,000
Interest paid	12,000
Income taxes paid	48,000
Cash paid to acquire plant assets	30,000
Proceeds from sales of plant assets	8,000
Loans made to borrowers	4,000
Collections on loans (excluding interest)	3,000
Proceeds from short-term borrowing	20,000
Dividends paid to stockholders	36,500

Using the data provided, prepare a **Statement of Cash Flows** for the year ended December 31, 2025. Use the **direct method** for operating activities. Classify all items into the three appropriate sections.

1.2.2.1
Net OP = 33,000
+ In = (20,000)
+ Fi = (16,500)
Net increase in cash = 33,500
Beginning cash = 30,000
Ending cash = 67,500

Question 3

(20 points)

Horizon Manufacturing Corp. is evaluating the purchase of a new automated assembly machine. The relevant data are summarized below.

Item	Amount
Cost of the machine	\$120,000
Estimated salvage value (end of Year 5)	\$10,000
Estimated useful life	5 years
Annual net income generated	\$18,000
Required minimum rate of return	12%

All revenues and all expenses other than depreciation will be received or paid in cash in the same period as recognized. The machine is depreciated on a **straight-line** basis.

- (A) **Compute the Annual Net Cash Flow** generated by the machine. Show the conversion from net income to cash flow.

$$\begin{aligned}
 \text{Depreciation:} \quad & \quad \text{Annual Net Cash flow} = \text{Annual Net income} + \text{Annual Net Outflow} \\
 (120,000 - 10,000) \div 5 & = 22,000 \quad 40000 = 18,000 + 22,000 \\
 & \quad \downarrow \\
 & \quad \text{Payback Period: } 120,000 \div 40,000 \\
 & \quad = 3 \text{ years}
 \end{aligned}$$

- (B) **Compute the Payback Period** for this investment. State the decision rule you are applying.

Accept if payback \leq company standard

- (C) **Compute the Return on Average Investment (ROI)**. Express your answer as a percentage.

$$\begin{aligned}
 \text{ROI} & = \frac{18,000}{\text{Avg Inv}} \quad \text{Average Investment} = \frac{\text{Org Cost} + \text{Salvage Cost}}{2} \\
 & = \frac{18,000}{65,000} \quad = \frac{120,000 + 10,000}{2} \\
 & = 27.69\%
 \end{aligned}$$

ကျမှုပုံမျိုး 27.69% per year

- (D) Compute the Net Present Value (NPV) of this investment using the tables provided below. Show all steps including the NPV schedule table.

Exhibit 26-3: Present Value of \$1 (Discount Rate = 12%)

Year	1	2	3	4	5	6
PV Factor	0.893	0.797	0.712	0.636	0.567	0.507

Exhibit 26-4: Present Value of an Annuity of \$1 (Discount Rate = 12%)

Year	1	2	3	4	5	6
PV Factor	0.893	1.690	2.402	3.037	3.605	4.111

Complete the NPV schedule below:

check!
why

$$\begin{aligned}
 \text{NPV} &= \text{PV inflows} - \text{PV outflows} \\
 &= 149,870 - 120,000 \\
 &= 29,870
 \end{aligned}$$

$$\begin{aligned}
 &\text{PV inflows} = 40000 \times 3.605 = 144,200 \quad (\text{value vs 40000/5}) \\
 &\text{PV Salvage} = 10000 \times 0.567 = 5670 \quad (\text{vs 5}) \\
 &\text{PV total} = 149,870
 \end{aligned}$$

- (E) Comment on your findings. Based on all three methods, should Horizon Manufacturing Corp. proceed with the investment? Explain briefly.

$\text{Payback} = 6$
 $\text{ROI} = 29.69\% > 12\%$
 $\text{NPV} = \text{positive}$
 # Amazing!

Part II: Multiple Choice

Choose the **best** answer for each question. (4 points each)

1. A company's total assets are \$480,000 and its total liabilities are \$135,000. The company earned net income of \$42,000 during the year and paid dividends of \$10,000. What is the owner's equity?

- a) \$345,000
- b) \$387,000
- c) \$335,000
- d) \$377,000

2. Blossom Retail Co. made the following transactions during the year. Which of the following transactions would be classified as a *Financing Activity* in the Statement of Cash Flows?

- a) Collected cash from customers for services rendered
- b) Purchased a delivery truck by paying cash
- c) Received dividends from a long-term investment in another company's stock
- d) Issued additional shares of common stock for cash

3. Summit Corp. is preparing its Statement of Cash Flows using the *direct method*. It paid \$320,000 to suppliers and employees, received \$490,000 from customers, paid \$18,000 in interest, received \$8,000 in interest and dividends, and paid \$35,000 in income taxes. What is Summit's net cash flow from *operating* activities?

- a) \$125,000
- b) \$143,000
- c) \$170,000
- d) \$107,000

4. Phoenix Co. invested \$200,000 in equipment with a 10-year life and no salvage value. Annual net income from this investment is \$15,000. What is the *Return on Average Investment (ROI)*?

- a) 7.50%
- b) 15.00%
- c) 13.04%
- d) 10.00%

5. Which of the following statements about the *Payback Period* method is *correct*?

- a) It accounts for the time value of money by discounting cash flows
- b) It considers cash flows received after the payback period is completed
- c) Managers prefer projects with a *shorter* payback period because it implies lower risk and faster recovery of investment
- d) It is the most sophisticated capital budgeting method available

6. Glacier Enterprises is evaluating a project with a required rate of return of 10%. After computing the Net Present Value (NPV), the result is negative. Which of the following conclusions is most appropriate?

- a) The project should be accepted because it generates positive cash flows
- b) The project should be rejected because the actual rate of return is *less than* the 10% required rate of return
- c) The project should be accepted because NPV considers the time value of money
- d) The project breaks even at exactly the required rate of return

Part III: Fill in the Blanks

Fill in each blank with the most appropriate term, value, or formula. (2 points each)

1. The accounting equation states that Assets = Liability + Equity.
This equation must always remain in balance after every business transaction.

2. To convert *Annual Net Income* to *Annual Net Cash Flow* in capital budgeting, we use the formula:

$$\text{Annual Net Cash Flow} = \text{Annual Net Income} + \text{Annual Depreciation}$$

This adjustment is necessary because Depreciation is not an actual cash outflow; it is merely an accounting entry.

3. The Statement of Cash Flows is divided into three main sections. List all three sections in the correct order as they appear on the statement:

- (1) Operating Activities
(2) Investing Activities
(3) Financing Activities
- } *Activities*

4. A company purchased equipment for \$180,000 with an estimated salvage value of \$20,000 at the end of its 8-year useful life. Using the straight-line depreciation method, the annual depreciation expense is \$ 20,000.

Part IV: True / False

For each statement below, write **TRUE** or **FALSE** in the space provided. (2 points each)

IV.1 F

Depreciation expense is a *cash outflow* and therefore must be subtracted from net income when computing annual net cash flow for capital budgeting purposes.

IV.2 T

If a project's Net Present Value (NPV) is positive, the project is considered acceptable because its actual rate of return *exceeds* the required minimum rate of return.

IV.3 T

Cash flows from *financing activities* in the Statement of Cash Flows include proceeds from issuing stock, borrowing from banks, paying dividends to stockholders, and repurchasing treasury stock.

IV.4 F

A longer payback period indicates a better investment because it means the company is using the asset's productive capacity over a longer period before recovering its initial cost.