

MULTIPLE CHOICE (40%)

1. Pederson Company reported the following:

Manufacturing costs	\$150,000
Units manufactured	5,000
Units sold	4,700 units sold for \$75 per unit
Beginning inventory	100 units

What is the average manufacturing cost per unit?

- A. \$40.00
 - B. \$42.00
 - C. \$30.00
 - D. \$32.00
2. What is the manufacturing cost for the ending finished goods inventory?
- A. \$12,000
 - B. \$8,000
 - C. \$11,000
 - D. \$5,000
3. Shown below are beginning and ending balances for certain of Grimaldi Inc.'s accounts.

	January 1	December 31
Cash	\$ 48,000	\$ 62,000
Marketable securities	42,000	35,000
Accounts receivable	68,000	47,000
Inventory	125,000	138,000
Plant & equipment	325,000	424,000
Accounts payable	32,000	84,000
Accrued liabilities	14,000	11,000
7% bonds payable	95,000	77,000

Grimaldi's acid test ratio or quick ratio at the end of the year is

- A. 0.83.
- B. 1.02.
- C. 1.15.
- D. 1.52.

4. Shown below are selected data from Fortune Company's most recent financial statements.

Marketable securities	\$10,000
Accounts receivable	60,000
Inventory	25,000
Supplies	5,000
Accounts payable	40,000
Short-term debt payable	10,000
Accruals	5,000

What is Fortune's net working capital?

- A. \$35,000.
 - B. \$45,000.
 - C. \$50,000.
 - D. \$80,000.
5. Selected financial data for Boyd Corporation are shown below.

	January 1	December 31
Cash	\$ 48,000	\$ 62,000
Accounts receivable (net)	68,000	47,000
Trading securities	42,000	35,000
Inventory	125,000	138,000
Plant and equipment (net)	325,000	424,000
Accounts payable	32,000	84,000
Accrued liabilities	14,000	11,000
Deferred taxes	15,000	9,000
Long-term bonds payable	95,000	77,000

Boyd's net income for the year was \$96,000. Boyd's current ratio at the end of the year is

- A. 1.55.
- B. 1.71.
- C. 2.71.
- D. 2.97.

6. A summary of the Income Statement of Sahara Company is shown below.

Sales	\$15,000,000
Cost of sales	9,000,000
Operating expenses	3,000,000
Interest expense	800,000
Taxes	880,000
Net income	\$ 1,320,000

Based on the above information, Sahara's degree of financial leverage is

- A. 0.96.
 - B. 1.36.
 - C. 1.61.
 - D. 2.27.
7. A degree of operating leverage of 3 at 5,000 units means that a
- A. 3% change in earnings before interest and taxes will cause a 3% change in sales.
 - B. 3% change in sales will cause a 3% change in earnings before interest and taxes.
 - C. 1% change in sales will cause a 3% change in earnings before interest and taxes.
 - D. 1% change in earnings before interest and taxes will cause a 3% change in sales.
8. The Liabilities and Shareholders' Equity section of Mica Corporation's Statement of Financial Position is shown below.

	January 1	December 31
Accounts payable	\$ 32,000	\$ 84,000
Accrued liabilities	14,000	11,000
7% bonds payable	95,000	77,000
Common stock (\$10 par value)	300,000	300,000
Reserve for bond retirement	12,000	28,000
Retained earnings	155,000	206,000
Total liabilities and shareholders' equity	\$608,000	\$706,000

Mica's debt/equity ratio is

- A. 25.1%.
- B. 25.6%.
- C. 32.2%.
- D. 33.9%.

9. Peggy Monahan, controller, has gathered the following information regarding Lampasso Company.

	Beginning of the year	End of the year
Inventory	\$6,400	\$7,600
Accounts receivable	2,140	3,060
Accounts payable	3,320	3,680

Total sales for the year were \$85,900, of which \$62,400 were credit sales. The cost of goods sold was \$24,500.

Lampasso's inventory turnover ratio for the year was

- A. 3.2 TIMES.
 - B. 3.5 TIMES.
 - C. 8.2 TIMES.
 - D. 8.9 TIMES.
10. Devlin Inc. has 250,000 shares of \$10 par value common stock outstanding. For the current year, Devlin paid a cash dividend of \$3.50 per share and had earnings per share of \$4.80. The market price of Devlin's stock is \$34 per share. Devlin's price/earnings ratio is
- A. 2.08.
 - B. 2.85.
 - C. 7.08.
 - D. 9.71.
11. Carbide Inc. has the following investment opportunities. Required investment outlays and the profitability index for each of these investments are as follows.

Project	Investment Cost	Profitability Index
I	\$300,000	0.5
II	450,000	1.4
III	650,000	1.8
IV	750,000	1.6

Carbide's budget ceiling for initial outlays during the present period is \$1,500,000. The proposed projects are independent of each other. Which project or projects would you recommend that Carbide accept?

- A. III.
- B. III AND IV.
- C. I, II, AND IV.
- D. I, III, AND IV.

12. Which of the following methods of analyzing mixed costs can be used to estimate an equation for the mixed cost? Cost management (cost behavior)

	High - Low	Least- Squares
A)	Yes	Yes
B)	Yes	No
C)	No	Yes
D)	No	No

- A. Option A
- B. Option B
- C. Option C
- D. Option D

Use the following information for questions 13 - 15.

The Rango Company is considering a capital investment for which the initial outlay is \$20,000. Net annual cash inflows (before taxes) are predicted to be \$ 4,000 for 10 years. Straight-line depreciation is to be used, with an estimated salvage value of zero. (Ignore income taxes when answering the listed questions below from 13-15).

Present Value of an Annuity of \$1: PVIFA _{i,n}					
Period	% 8	% 9	% 10	% 12	% 15
10	6,710.1	6,4177	6,1446	5,60.2	5,188

13. The Payback period is

- A. 6 years
- B. 5 years
- C. 4 years
- D. 3 years

14. The accounting rate of return is

- A. 9 %
- B. 10 %
- C. 12 %
- D. 8.5 %

15. The Net present value, assuming a cost of capital (before tax) of 12percent

- A. 1,600 \$
- B. 3,600 \$
- C. 2,400 \$
- D. 2,600 \$

16. The following labor standards have been established for a particular product:

Standard labor-hours per unit of output.....	4.0 hours
Standard labor rate.....	\$12.30 per hour

The following data pertain to operations concerning the product for the last month:

Actual hours worked.....	7,100 hours
Actual total labor cost	\$89,105
Actual output	1,500 units

What is the labor efficiency variance for the month?

- A. \$13,805 U
- B. \$13,530 U
- C. \$15,305 U
- D. \$15,305 F

17. At the end of the year, actual manufacturing overhead costs were \$110,000 and estimated manufacturing overhead costs were \$118,800. If the cost driver activity for the year was 20,000 machine-hours, and if 22,000 standard machine-hours were allowed for the year's production, the predetermined overhead rate per machine-hour was:

- A. \$5.00
- B. \$5.94
- C. \$5.50
- D. \$5.40

18. Last year Burford Company's cash account decreased by \$19,000. Net cash used in investing activities was \$9,000. Net cash provided by financing activities was \$16,000. On the statement of cash flows, the net cash flow provided by (used in) operating activities was:

- A. \$(19,000)
- B. \$(26,000)
- C. \$(12,000)
- D. \$7,000

19. The average stockholders' equity for Horn Co. last year was \$2,000,000. Included in this figure was \$200,000 of preferred stock. Preferred dividends were \$16,000. If the return on common stockholders' equity was 12.5% for the year, net income was:

- A. \$225,000
- B. \$250,000
- C. \$241,000
- D. \$234,000

20. Salyers Family Inn is a bed and breakfast establishment in a converted 100-year-old mansion. The Inn's guests appreciate its gourmet breakfasts and individually decorated rooms. The Inn's overhead budget for the most recent month appears below

No. of guests	57
Variable overhead costs:	
Supplies	\$ 148.20
Laundry	216.60
Fixed overhead costs:	
Utilities	170.00
Salaries and wages.....	4,310.00
Depreciation.....	<u>2,340.00</u>
Total overhead cost:	<u>\$ 7,184.80</u>

The Inn's variable overhead costs are driven by the number of guests. What would be the total budgeted overhead cost for a month if the activity level is 53 guests?

- A. \$7,159.20
- B. \$6,680.60
- C. \$7,184.80
- D. \$26,154.40

QUESTIONS (60%)

Question 1 (20%)

Fleet Foot buys hiking socks for \$6 a pair and sells them for \$10. Monthly fixed costs are \$10,000 (for sales volumes between 0 and 12,000 pairs), resulting in a breakeven point of 2,500 units. Assume that Fleet Foot has been selling 8,000 pairs of socks per month.

Required:

1. What is Fleet Foot’s current margin of safety in units, in sales dollars, and as percentage? Explain the results.
2. At this level of sales, what is Fleet Foot’s operating leverage factor (degree of operating leverage)? If volume declines by 25% due to increasing competition, by what percentage will the company’s operating income decline?
3. Competition has forced Fleet Foot to lower its sales price to \$9 a pair. How will this affect Fleet Foot’s breakeven point in units?
4. To compensate for the lower sales price, Fleet Foot wants to expand its product line to include men’s dress socks. Each pair will sell for \$7 and cost \$2.75 from the supplier. Fixed costs will not change. Fleet Foot expects to sell four pairs of dress socks for every one pair of hiking socks (at its new \$9 sales price). What is Fleet Foot’s weighted-average contribution margin per unit? Given the 4:1 sales mix, how many of each type of socks will it need to sell to break even?

Question 2 (14%)

Two new machines are being evaluated for possible purchase. Forecasts related to the machine are:

	Machine 1	Machine 2
Purchase Price	\$50,000	\$60,000
Estimated Life (straight-line depreciation)	4 years	4 years
Estimated scrap value	None	None
Annual cash benefits before income tax		
Year 1	\$25,000	\$45,000
Year 2	25,000	19,000
Year 3	25,000	25,000
Year 4	25,000	25,000
Income tax rate	40%	40%

Present Value of \$1: $PVIF_{i,n}$										
Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	.9901	.9804	.9709	.9615	.9524	.9434	.9346	.9259	.9174	.9091
2	.9803	.9612	.9426	.9246	.9070	.8900	.8734	.8573	.8417	.8264
3	.9706	.9423	.9151	.8890	.8638	.8396	.8163	.7938	.7722	.7513
4	.9610	.9238	.8885	.8548	.8227	.7921	.7629	.7350	.7084	.6830

Present Value of an Annuity of \$1: $PVIFA_{i,n}$										
Period	1%	2%	3%	4%	5%	6%	7%	8%	9%	10%
1	0.9901	0.9804	0.9709	0.9615	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091
2	1.9704	1.9415	1.9135	1.8861	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355
3	2.9410	2.8839	2.8286	2.7751	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869
4	3.9020	3.8077	3.7171	3.6299	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699

Required:

Assuming that a cost of capital 8%. Specify which of the two options is the best to buy by computing the net present value of each machine. Justify your answer

Question 3 (10%)

Assuming the following probability distribution of the possible returns

Probability (p_1)	Return (r_1)
0.1	-20%
0.2	5%
0.3	10%
0.4	25%

Required:

Calculate the expected return (r) and the standard deviation (σ) of the returns.

Question 4 (16%)

The enterprise “Tala” presented the forecasted information to the first quarter (N+1) in order to prepare the cash budget of the enterprise.

Forecasts	January	February	March
Sales amount \$	40,000	45,000	50,000
Purchase amount \$	34,000	42,000	39,000
Net salaries \$	13,000	14,000	14,000
Social charges \$	2,700	2,800	2,800
Purchases of fixed assets	—	8,000	—

Collection and payments were as follows:

- 20% of sales is collected cash and the remaining after one month of sale.
- 100% of purchase of merchandise will be settled after two months of purchase.
- Salaries are settled on the end of each month.
- Social charges are settled on the 15th of the following month.
- The fixed assets purchases are settled during March.

Required:

Prepare the cash budget for the first quarter (N+1) (the balance of cash at the beginning of the quarter was for \$50,000).