



IMA's Certification for
Accountants and
Financial Professionals
in Business

CMA Examination Sample Questions



CMA Part I – Financial Reporting, Planning, Performance, and Control Examination Sample Questions

1. When a fixed asset is sold for less than book value, which one of the following will decrease?
- a. Total current assets.
 - b. Current ratio.
 - c. Net profit.
 - d. Net working capital.

2. For the fiscal year just ended, Doran Electronics had the following results.

Net income	\$920,000
Depreciation expense	110,000
Increase in accounts payable	45,000
Increase in accounts receivable	73,000
Increase in deferred income tax liability	16,000

Doran's net cash flow from operating activities is

- a. \$928,000.
 - b. \$986,000.
 - c. \$1,018,000.
 - d. \$1,074,000.
3. Which one of the following techniques would most likely be used to analyze reductions in the time required to perform a task as experience with that task increases?
- a. Regression analysis.
 - b. Learning curve analysis.
 - c. Sensitivity analysis.
 - d. Normal probability analysis.
4. The sales manager of Serito Doll Company has suggested that an expanded advertising campaign costing \$40,000 would increase the sales and profits of the company. He has developed the following probability distribution for the effect of the advertising campaign on company sales.

Sales increase (units)	Probability
15,000	.10
30,000	.35
45,000	.10
60,000	.25
75,000	.20

The company sells the dolls at \$5.20 each. The cost of each doll is \$3.20. Serito's expected incremental profit, if the advertising campaign is adopted, would be

- a. \$6,500.
- b. \$46,500.
- c. \$53,000.
- d. \$93,000.

5. Ming Company has budgeted sales at 6,300 units for the next fiscal year, and desires to have 590 good units on hand at the end of that year. Beginning inventory is 470 units. Ming has found from past experience that 10% of all units produced do not pass final inspection, and must therefore be destroyed. How many units should Ming plan to produce in the next fiscal year?
- 6,890.
 - 7,062.
 - 7,133.
 - 7,186.
6. Randall Company uses standard costing and flexible budgeting and is evaluating its direct labor. The total budget variance can usually be broken down into two other variances identified as the
- direct labor rate variance and direct labor efficiency variance.
 - direct labor cost variance and the direct labor volume variance.
 - direct labor rate variance and direct labor volume variance.
 - direct labor cost variance and direct labor efficiency variance.
7. Sara Bellows, manager of the telecommunication sales team, has the following department budget.

Billings - long distance	\$350,000
Billings - phone card	75,000
Billings - toll free	265,000

Her responsibility center is best described as a

- cost center.
 - revenue center.
 - profit center.
 - investment center.
8. Kimber Company has the following unit cost for the current year.

Raw material	\$20.00
Direct labor	25.00
Variable manufacturing overhead	10.00
Fixed manufacturing overhead	<u>15.00</u>
Total unit cost	<u>\$70.00</u>

Fixed manufacturing cost is based on an annual activity level of 8,000 units. Based on these data, the total manufacturing cost expected to be incurred to manufacture 9,000 units in the current year is

- \$560,000.
 - \$575,000.
 - \$615,000.
 - \$630,000.
9. If a corporation may be violating federal and state laws governing environmental concerns, which one of the following types of audit will best assist in ascertaining whether such situations may exist?
- Operational audit.
 - Compliance Audit.
 - Financial audit.
 - Management Audit

- 10.** Confidential data can be securely transmitted over the internet by using
- a. single-use passwords.
 - b. firewalls.
 - c. encryption.
 - d. digital signatures.

CMA Part 2 – Financial Decision Making - Examination Sample Questions

1. Markowitz Company increased its allowance for uncollectable accounts. This adjustment will
 - a. increase the acid test ratio.
 - b. increase working capital.
 - c. reduce debt-to-asset ratio.
 - d. reduce the current ratio.

2. The interest expense for a company is equal to its earnings before interest and taxes (EBIT). The company's tax rate is 40%. The company's times-interest earned ratio is equal to
 - a. 2.0.
 - b. 1.0.
 - c. 0.6.
 - d. 1.2.

3. Frasier Products has been growing at a rate of 10% per year and expects this growth to continue and produce earnings per share of \$4.00 next year. The firm has a dividend payout ratio of 35% and a beta value of 1.25. If the risk-free rate is 7% and the return on the market is 15%, what is the expected current market value of Frasier's common stock?
 - a. \$14.00.
 - b. \$16.00.
 - c. \$20.00.
 - d. \$28.00.

4. Powell Industries deals with customers throughout the country and is attempting to more efficiently collect its accounts receivable. A major bank has offered to develop and operate a lock-box system for Powell at a cost of \$90,000 per year. Powell averages 300 receipts per day at an average of \$2,500 each. Its short-term interest cost is 8% per year. Using a 360-day year, what reduction in average collection time would be needed in order to justify the lock-box system?
 - a. 0.67 days.
 - b. 1.20 days.
 - c. 1.25 days.
 - d. 1.50 days.

5. Breakeven quantity is defined as the volume of output at which revenues are equal to
 - a. marginal costs.
 - b. total costs.
 - c. variable costs.
 - d. fixed costs.

6. In a management decision process, the cost measurement of the benefits sacrificed due to selecting an alternative use of resources is most often referred to as a(n)
 - a. relevant cost.
 - b. sunk cost.
 - c. opportunity cost.
 - d. differential cost.

7. Allstar Company invests in a project with expected cash inflows of \$9,000 per year for four years. All cash flows occur at year-end. The required return on investment is 9%. If the project generates a net present value (NPV) of \$3,000, what is the amount of the initial investment in the project?
- \$11,253.
 - \$13,236.
 - \$26,160.
 - \$29,160.

8. Diane Harper, Vice President of Finance for BGN Industries, is reviewing material prepared by her staff prior to the board of directors meeting at which she must recommend one of four mutually exclusive options for a new product line. The summary information below indicates the initial investment required, the present value of cash inflows (excluding the initial investment) at BGN's hurdle rate of 16%, and the internal rate of return (IRR) for each of the four options.

Option	Investment	Present Value of Cash Inflows at 16%	IRR
X	\$3,950,000	\$3,800,000	15.5%
Y	3,000,000	3,750,000	19.0%
Z	2,000,000	2,825,000	17.5%
W	800,000	1,100,000	18.0%

If there are no capital rationing constraints, which option should Harper recommend?

- Option X.
 - Option Y.
 - Option Z.
 - Option W.
9. For a given investment project, the interest rate at which the present value of the cash inflows equals the present value of the cash outflows is called the
- hurdle rate.
 - payback rate.
 - internal rate of return.
 - cost of capital.
10. Quint Company uses the payback method as part of its analysis of capital investments. One of its projects requires a \$140,000 investment and has the following projected before-tax cash flows.

Year 1	\$60,000
Year 2	60,000
Year 3	60,000
Year 4	80,000
Year 5	80,000

Quint has an effective 40% tax rate. Based on these data, the after-tax payback period is

- 1.5.
- 2.3.
- 3.4.
- 3.7.

1. Correct answer c. The sale of a fixed asset for less than book value will decrease net profit as the loss on the sale will be recognized on the Income Statement.

2. Correct answer c. Doran's net cash flow from operating activities is \$1,018,000 as shown below.

Net income	\$ 920,000
Depreciation expense	+ 110,000
Increase in payables	+ 45,000
Increase in receivables	- 73,000
Increase in tax liability	+ 16,000
Cash flow	<u>\$1,018,000</u>

3. Correct answer b. Learning curve analysis is a function that shows how labor hours per unit decline as units of production increase due to workers learning and becoming better at their jobs.

4. Correct answer c.

$$\begin{aligned}
 \text{Increased units sold} &= .1 (15,000) + .35 (30,000) + .1 (45,000) + .25 (60,000) + .2 (75,000) \\
 &= 1,500 + 10,500 + 4,500 + 15,000 + 15,000 \\
 &= 46,500 \text{ units} \\
 \text{Increased profit} &= [46,500 \times (\$5.20 - \$3.20)] - \$40,000 \\
 &= \$93,000 - \$40,000 \\
 &= \underline{\underline{\$53,000}}
 \end{aligned}$$

5. Correct answer c. Ming should plan to produce 7,133 units next fiscal year.

$$\begin{aligned}
 \text{Sales} - \text{Beg. Inventory} + \text{Ending Inventory} \\
 6,300 - 470 + 590 &= 6,420 \text{ units} \\
 \text{To cover 10\% scrap} &= 6,420 \div .9 = \underline{\underline{7,133 \text{ units}}}
 \end{aligned}$$

6. Correct answer a. The rate variance will show how the price paid for direct labor varies from the standard price. The efficiency variance shows how the number of direct labor hours used varies from the standard number of direct labor hours.

7. Correct answer b. A sales team is generally only accountable for sales dollars; this type of responsibility center is, therefore, a revenue center.

8. Correct answer c. Kimber's total manufacturing cost will be \$615,000 as shown below.

Variable cost:	9,000 units x (\$20 + \$25 + \$10)	=	\$495,000
Fixed cost:	8,000 units x \$15	=	120,000
	Total manufacturing cost		<u>\$615,000</u>

- 9.** Correct answer b. The objective of compliance testing is ensuring conformity with laws, regulations and contracts. This includes Federal and State laws.

- 10.** Correct answer c. Encryption technology converts data into a code. Unauthorized users may still be able to access the data, but without the encryption key, they will be unable to decode the information; thus encrypting confidential data is a secure way of transmitting it over the Internet.

1. Correct answer d. Markowitz's current ratio will be reduced as an increase in the allowance for uncollectible accounts will reduce total current assets while current liabilities remain unchanged.
2. Correct answer b. The company's times-interest earned ratio is 1.0. The ratio is calculated as $\text{EBIT} \div \text{interest expense}$. Since interest expense is equal to EBIT, the ratio is 1.0.
3. Correct answer c. The expected current value of Frasier's common stock is \$20 as shown below.

Dividend	=	Payout ratio x Earnings per share
	=	.35 x \$4.00
	=	\$1.40
Required return	=	Risk-free rate + Beta (Market rate - Risk-free rate)
	=	.07 + 1.25 (.15 - .07)
	=	.17
Value of stock	=	Dividend \div (Required return - Dividend growth rate)
	=	\$1.40 \div (.17 - .10)
	=	<u>\$20.00</u>

4. Correct answer d. Powell would need to reduce its average collection time by 1.5 days in order to justify the use of the lockbox as shown below.

Daily collections:	300 x \$2,500 =	\$750,000
Daily interest:	\$750,000 x .08 =	\$60,000
Reduction in days:	\$90,000 \div \$60,000 =	<u>1.5 days</u>

5. Correct answer b. Breakeven quantity can be defined as the point where operating income is equal to zero. Therefore, revenue must equal total costs.
6. Correct answer c. The benefits sacrificed by selecting an alternative use of resources is opportunity cost. Opportunity cost is the contribution foregone by not using a limited resource in its next best alternative use.
7. Correct answer c. Allstar's initial investment is \$26,160 as shown below.

Present value of cash inflows	\$9,000 x 3.24 =	\$29,160
Initial investment	\$29,160 - \$3,000 =	\$26,160
8. Correct answer c. BGN Industries should select Option Z as it has the highest net present value (\$2,825,000 - \$2,000,000) and the internal rate of return is greater than the hurdle rate.
9. Correct answer c. The internal rate of return is the discount rate that equates the present value of future net cash flows from an investment project with project's initial cash outflow.

10. Correct answer d. Quint's payback period is 3.7 years as shown below.

	<u>After-tax cash flow</u>	<u>Investment less cash flow</u>
Year 1	$\$60,000 \times .6 = \$36,000$	\$104,000
Year 2	$\$60,000 \times .6 = \$36,000$	68,000
Year 3	$\$60,000 \times .6 = \$36,000$	32,000
Year 4	$\$80,000 \times .6 = \$48,000$	$\$32,000 \div \$48,000 = .667$
	Payback period = 3.7 years	