June 2000
CMA Entrance Examination
Part 1

The following notes appeared on the title page of the printed examination used at the writing centers in June 2000. These notes refer to the actual number of pages of the examination and supplement which were printed on legal-sized paper.

(Time Allowed: 4 hours)

Notes:

i) Candidates must not identify themselves in answering any question.

ii) Candidates must indicate their envelope number at the top of the page in the space provided.

iii) This examination has a total of 31 pages and consists of two questions. The last page is marked **END OF PART 1 OF EXAMINATION**. Ensure that you have a complete examination question paper before starting to answer the questions.

iv) All answers must be written on official answer sheets (i.e., examination foolscap or scannable multiple-choice answer sheets). Work done on the question paper will **NOT** be marked.

v) Included in the examination envelope is a supplement consisting of formulae and tables. It is a standard supplement that may be useful for answering questions on this paper.

vi) **Examination materials must NOT BE REMOVED from the examination writing centre.** All examination materials (i.e., used and unused answer sheets, working papers, envelope, supplement and question paper) must be submitted to the presiding officer before you leave the examination room.

Disclaimer: In order to provide associates with questions that reflect the depth of knowledge required for the core topics of Financial Accounting, Managerial Accounting, Taxation and Corporate Finance, this exam has been altered to remove the extended topics which will no longer be tested on the Entrance Exam. As a result this exam is short and is not representative of what could be expected in terms of number of questions that will be included in the June 2007 exam (approximately 100-120 questions).

Question 1 (192 minutes)

INSTRUCTIONS:

Use the multiple-choice answer sheet provided to record your answers to this question. Be sure to enter your four-digit **PART 1** envelope number on the multiple-choice answer sheet. Select the **BEST** answer for each of the following 128 items and record your answer on the multiple-choice answer sheet by blackening the appropriate answer space (i.e., oval) with a soft lead (HB) pencil. Answer all items. Mark **ONLY ONE ANSWER** for each item.

Sample Item:

1.149 (-) Market research and public relations costs are

a) engineered variable costs.
b) discretionary variable costs.
c) committed fixed costs.
d) discretionary fixed costs.
e) engineered fixed costs.

In the above item reference “1.149,” the “1” represents the question number and should be recorded in the “QUESTION NO.” area of the multiple-choice answer sheet. The “149” represents the item number. Assuming you select choice d) for your answer, you should blacken the “d” space on line 149 in the “ANSWERS” area of the multiple-choice answer sheet as shown below:

149 (a) (b) (c) ⬤ (e)

Item Weighting:

Your performance on the question will be based on the total number of correct answers. Note that, unless otherwise specified with a plus (+) or minus (-) sign, each item in the question has the same value (e.g., weighting of 1). Items with a plus sign (+) have a value of no more than double the value of an item without a plus or minus sign (e.g., weighting of 1.5 or 2). Items with a minus sign (-) have a value of no less than one-half that of an item without a plus or minus sign (e.g., weighting of .5). In the above example, there is a minus sign at the beginning of the item, signifying that the value of the item is less than the average item.

Note: In the interests of improving the maintenance of a consistent passing standard over time, CMA Canada is adopting *equating methodology*. This involves the reuse of selected multiple-choice question items on future examinations. Consequently, the actual multiple-choice items appearing in Question 1 of this examination are not being provided. The following substitute items are presented as a sample of the types of items that appeared on the examination and test the same mix of topics as the actual items used.

Management Accounting

1.1 You are in the process of budgeting the utilities costs for the electrical department of a steel mill. You need to employ a cost estimation approach. Which of the following is an appropriate cost estimation approach?

a) High-low method.
b) Conference (delphi) method.
c) Account analysis method.
d) Regression analysis method.
e) All of the above.

1.2 (+) Deejay Company uses an actual process costing system. In Department 2, direct materials are added at the 50% stage of completion of the process and conversion costs are added uniformly throughout the process. On March 1, there were 6,000 units in work-in-process and they were 60% completed as to conversion costs. During March, 42,000 units were transferred into Department 2 for processing. On March 31, there were 8,000 units in work-in-process: 3,000 units were 40% complete as to conversion costs and the other 5,000 units were 80% complete as to conversion costs. No spoilage was reported during March. Using the weighted-average method, the number of equivalent units of production for direct materials for March would be

a) 39,000.
b) 40,000.
c) 42,000.
d) 45,000.
e) 48,000.

1.3 The basic difference between the static budget and the flexible budget is that

a) the static budget includes all costs, whereas the flexible budget includes only variable costs.
b) the static budget is based on rigid goals, whereas the flexible budget allows management latitude in meeting goals.
c) the static budget is for an entire organization, whereas the flexible budget is applicable to individual departments.
d) the static budget is based on absorption costing, whereas the flexible budget is based on standard costing.
e) the static budget is based on one level of output, whereas the flexible budget can be adjusted for any level of output within the relevant range.

1.4 Solids Company uses a normal cost accounting system. Budgeted costs for the year were $4 per kg. of raw materials, $15 per direct labour hour and $20 per machine hour. Budgeted production activity was 20,000 machine hours for the year. During the year, the following were actually incurred for manufacturing:

Kg. of raw materials used	65,000
Direct labour hours incurred	15,000
Machine hours incurred	19,000
Raw materials costs	$200,000
Direct labour costs	$247,000
Factory overhead costs	$358,000

For a job that used 250 kgs. of direct materials, 45 direct labour hours and 50 machine hours, what was the cost of the job under normal costing?

a) $2,452.

b) $2,510.

c) $2,617.

d) $2,675.

e) $2,683.

1.5 Dundas Company uses an activity-based costing system. Consider the following information:

Manufacturing Activity Area	**Cost Driver Used As Application Base**	**Conversion Cost per Unit of Application Base**
Machine setup	Number of setups	$100
Material handling	Number of parts	5
Milling	Machine hours	40
Assembly	Direct labor hours	20

During the past month, 40 units of a component were produced. Two setups were required. Each unit needs 25 parts, 3 direct labor hours and 5 machine hours. Direct materials cost $125 per finished unit. All other costs are classified as conversion costs.

The manufacturing cost per unit of the component is

a) $139.63.

b) $290.00.

c) $390.00.

d) $515.00.

e) $710.00.

1.6 Company F has two production departments, A and B, and two service departments, janitorial and personnel. Personnel costs are allocated based on number of employees and janitorial costs are allocated based on size of the department in square metres.

Department	No. of Employees	Sq. Metres	Direct Costs
A	150	10,000	$ 750,000
B	200	20,000	600,000
Janitorial	25	1,000	25,000
Personnel	15	2,000	18,000
Total	390	33,000	$1,393,000

Under the direct allocation method, what amount of janitorial costs would be allocated to Department A (round to the nearest dollar)?

a) $7,576.

b) $7,813.

c) $8,222.

d) $8,333.

e) $8,733.

1.7 The following information relates to a new product that an organization plans to introduce:

Selling price	$80 per unit
Variable selling cost	$5 per unit
Direct materials	$25 per unit
Direct labor	$10 per unit
Variable overhead	$20 per unit
Fixed overhead	$140,000 per year
Fixed selling expense	$60,000 per year

How many units of this product must be sold each year to break even?

a) 2,500.

b) 10,000.

c) 7,000.

d) 8,000.

e) 4,444.

1.8 (+) West Coast Laser (WCL) has a production capacity limit of 4,000 laser machine hours and 1,000 image machine hours. The direct costs per hour to operate the machines are $15 and $20, respectively. Both machines are operating at 90% of capacity and all current production is sold at $1,500 per unit.

Each unit of output requires $250 of direct materials, 4 laser machine hours and 1 image machine hour to produce. Indirect variable overhead costs are $200 per unit, and indirect fixed overhead costs are $225 per unit based on full capacity.

A prospective customer, Company L, has offered to buy 240 units at $1,350 per unit. If the offer is accepted, all 240 units must be delivered by the end of the year. WCL can lease machinery to accommodate the new customer's order at a cost of $70,000. By what amount would WCL's income change if Company L's offer is accepted and the machine is leased?

a) $254,000 increase.
b) $72,800 increase.
c) $106,000 decrease.
d) $90,800 increase.
e) $126,800 increase.

1.9 A boat manufacturer produces fishing boats and pleasure boats. The contribution margins per unit are $400 per fishing boat and $600 per pleasure boat. Monthly production is restricted because of limited assembly capacity, limited engine supplies and limited finishing capacity. Demand is often greater than the company's ability to supply the boats. The company's basic goal is to maximize monthly profit. The decision variables to achieve the company's goal are the

a) contribution margins per unit for the two types of boats.
b) assembly and finishing capacities.
c) total combined profit from both types of boat.
d) monthly engine supplies.
e) monthly quantities of fishing and pleasure boats.

1.10 The first step in formulating next year's master budget for a manufacturing company is to project next year's

a) capital budget to decide which production machine to buy in order to increase productivity.
b) cash budget to decide if the company needs to take out a bank loan.
c) materials and labour budget to decide on next year's direct material costs and direct labour costs.
d) production budget to decide on next year's production schedule.
e) sales budget to decide next year's sales volume.

1.11 Robert Motoz is the manager of Division B of a large manufacturing company. Division B purchases all of its direct materials from Division A at a negotiated transfer price. Division B manufactures a product, sells the product on the market and makes all production efficiency decisions including replacing and upgrading manufacturing equipment. The above represents which of the following types of responsibility centre?

a) Cost centre.

b) Revenue centre.

c) Profit centre.

d) Investment centre.

e) Discretionary centre.

The following information pertains to items 1.12 and 1.13.

Acme Beds Inc. produces two models of beds: Regular and Majestic. Budget and actual data were as follows:

	Budget		**Actual**	
	Regular	**Majestic**	**Regular**	**Majestic**
Selling price per unit	$300	$800	$325	$700
Sales volume in units	4,500	5,500	7,200	4,800
Variable costs per unit	$220	$590	$238	$583

	Master Budget	**Actual**
Sales revenue	$5,750,000	$5,700,000
Variable costs	4,235,000	4,512,000
Contribution margin	1,515,000	1,188,000
Fixed costs	882,500	919,500
Operating income	$ 632,500	$ 268,500

Market Data

Expected total market sale of beds	500,000 beds
Actual total market sales of beds	666,667 beds

1.12 (+) The sales mix variance is

a) $303,000 favourable.

b) $54,000 unfavourable.

c) $202,000 unfavourable.

d) $207,000 favourable.

e) $234,000 unfavourable.

1.13 (+) The market share variance is approximately

a) $303,000 favourable.
b) $505,000 favourable.
c) $202,000 unfavourable.
d) $151,500 unfavourable.
e) $132,000 unfavourable.

1.14 Company E is a large manufacturer that treats its divisions as profit centres. Division X produces an electronic component at the following costs:

Variable production cost	$80/unit
Variable selling cost	$10/unit
Fixed cost (based on 10,000 units)	$10/unit

Division Y currently purchases a similar component from an outside supplier for $105/unit. It has determined that the component produced by Division X could be used instead with no adverse effects on the quality of the final product. Currently, Division X, which is operating at full capacity, sells all of its output to outside customers at $112/unit per component.

What is the lowest price at which Division X would agree to transfer the component to Division Y?

a) $80.
b) $90.
c) $100.
d) $102.
e) $112.

Corporate Finance

1.15 In analyzing the annual average return on share capital for an industry, it was noted that Firm A's stock has a beta factor of 1.2 and that the rate of return on the industry's market portfolio is 2% lower than the risk-free rate. The risk-free rate is expected to increase by one percentage point next year. Assuming the rate of return on the industry's market portfolio remains constant, one would predict that

a) Firm A's expected rate of return would be lower than the risk-free rate.
b) Firm A's expected rate of return would be higher than the risk-free rate.
c) Firm A's expected rate of return would remain constant.
d) Firm A's expected rate of return would decrease.
e) both a) and d) above would be true.

1.16 (+) L Ltd. purchased 10-year 8% semi-annual bonds with a $1,000,000 face value on July 1, 1994 which was the date on which the bonds were put on the market. The market rate on July 1, 1994 was 12%. L Ltd. uses the effective interest rate method. The December 31, 2000, carrying value of the bonds was (to the nearest dollar)

a) $919,711.

b) $888,352.

c) $890,856.

d) $1,000,000.

e) none of the above.

1.17 Which of the following suggests that the stock market is efficient?

a) Last year, your stock index mutual fund achieved the percentage return that you expected it would make.

b) XYZ Company reported lower than expected earnings for the 3rd quarter of the year. Within minutes of the announcement, the stock price fell by over 10%.

c) The share price of ABC Corporation dropped by 8% last year, which matched the overall drop in the market.

d) A firm’s announcement of a large new diamond find in the Northwest Territories was greeted by a 20% increase in share price. The share price increase occurred gradually over a four-day period following the announcement. No other new information was released during this time.

e) The price of XYZ Company stock climbed 8% the day that the firm started its new road building project. The announcement of the project had been made three months before the start of the project.

1.18 (+) Acme Limited offers credit terms of a 2% discount if paid within 10 days or the full balance is due within 30 days (2\10, net 30). If 20% of Acme’s customers pay cash on delivery, 60% pay on day 10 and 20% pay on day 30, the average collection period is

a) 10 days.

b) 12 days.

c) 20 days.

d) average receivables divided by average daily sales.

e) annual credit sales divided by average receivables.

1.19 A capital structure that maximizes share prices generally will at the same time

a) maximize the weighted-average cost of capital.

b) minimize the cost of equity.

c) minimize the weighted-average cost of capital.

d) have no effect on weighted-average cost of capital.

e) do both a) and b) above.

1.20 From the viewpoint of the investor, which of the following securities provides the **LEAST** risk?

a) Mortgage bonds.
b) Subordinated debentures.
c) Income bonds.
d) Debentures.
e) Preferred shares.

1.21 (-) Which of the following is **NOT** a potential factor in the dividend payment decision, assuming a rational investor?

a) The level of interest rates.
b) The comparative tax rate on dividends versus capital gains.
c) The desire of shareholders to limit the amount of available cash in the organization for management to spend on negative NPV projects.
d) The transaction costs associated with investors creating their own dividends, in comparison to the transaction costs associated with the firm issuing dividends.
e) The need for and credibility of dividends as a signal to investors regarding the prospects of the firm.

1.22 (-) Which of the following transactions would immediately affect the total amount of a company's shareholders' equity?

a) Exercise of stock warrants.
b) A two-for-one stock split.
c) Conversion of convertible preferred shares to common shares.
d) Issuance of a share right.
e) None of the above.

Financial Accounting

1.23 June 30, 2000, D Ltd., a manufacturing company, sold a piece of land for its book value of $250,000. D. Ltd. accepted $170,000 cash plus a mortgage in the amount of $80,000 in exchange for the land. How would D Ltd. report this on its December 31, 2000, annual cash flow statement?

a) $250,000 inflow under the investing activities heading.
b) $170,000 inflow under the operating activities heading.
c) $250,000 inflow under the investing and $80,000 outflow under the financing activities headings.
d) $170,000 inflow under the investing and $80,000 outflow under the financing activities headings.
e) $250,000 inflow and $80,000 outflow under the investing activities heading.

1.24(-) Amortization expense is most justified based on the concept of

a) conservatism.
b) full disclosure.
c) matching.
d) materiality.
e) none of the above.

1.25 An unexpected decrease in which of the following ratios could indicate that fictitious inventory has been recorded?

a) Price-earnings.
b) Total asset turnover.
c) Current.
d) Average collection period.
e) Acid test (quick ratio).

1.26 A company installed an assembly line costing $50,000 in 1996. In 2000, the company invested $100,000 to automate the line. The automation increased the market value and productive capacity of the assembly line but did not affect its useful life. Proper accounting for the cost of the automation should be to

a) report it as an expense in 2000.
b) debit the accumulated depreciation account by $100,000.
c) allocate it between the fixed asset and accumulated depreciation accounts.
d) debit the fixed asset account by $100,000.
e) none of the above.

1.27 Which of the following is **NOT** considered a characteristic of accounting information according to the conceptual framework of financial accounting?

a) Accuracy.
b) Representational faithfulness.
c) Verifiability.
d) Neutrality.
e) Timeliness.

1.28 (+) B Ltd., which began retail operations on January 1, 1998, uses a periodic last-in-first-out (LIFO) inventory system. B. Ltd. has a December 31 fiscal year end. The following purchases were made by B Ltd.:

	Units Purchased	Unit cost
January 1, 1998	5,000	$ 8
April 1, 1998	3,000	9
October 1, 1998	4,000	8
February 1, 1999	6,000	10
September 1, 1999	8,000	7
June 1, 2000	14,000	10

The following sales were recorded by B Ltd.:

	1998	1999	2000
Units sold	10,000	12,000	15,000
Average unit selling price	$15	$16	$20

In 2000, B Ltd. decided to change its inventory accounting method to a periodic first-in first-out (FIFO) system. On its 2000 balance sheet, with comparative figures for 1999, B Ltd. would report which of the following amounts as inventory?

a) 2000 - $30,000 1999 - $36,000

b) 2000 - $30,000 1999 - $28,000

c) 2000 - $30,000 1999 - $40,000

d) 2000 - $26,000 1999 - $36,000

e) 2000 - $24,000 1999 - $32,000

1.29 (+) On December 31, 1998, Aspen Inc. had 120,000 common shares outstanding. On October 1, 1999, 20,000 additional common shares were issued. Aspen Inc.'s net income for the year ended December 31, 1999, was $1,000,000. On December 31, 1999, Aspen Inc. declared and paid $150,000 cash dividends on preferred shares and $175,000 cash dividends on common shares. Aspen Inc.'s income tax rate for 1999 was 40%.

Aspen Inc.'s basic earnings per share for 1999 is

a) $5.40.

b) $6.80.

c) $7.28.

d) $8.00.

e) $8.33.

1.30 The purpose of recording prepaid expenses that are subsequently disclosed as current assets on the balance sheet is

a) to smooth income.
b) to record payments made on invoices prior to the invoice due date.
c) to allocate expenditures to the period in which they apply.
d) to recognize current expenditures that will convert into cash within the next twelve months.
e) to record payments for service to be received over a period of years.

1.31 According to generally accepted accounting principles, experience gains and losses for defined benefit pension plans should be

a) treated as prior period adjustments.
b) taken into income in the year the gains and losses are known.
c) amortized over a short period of time, such as five years.
d) amortized over the expected average remaining service life of the employee group covered in the plan.
e) disclosed in a note to the financial statements until the pension benefits are paid out.

1.32(-) Which of the following is considered an activity ratio?

a) Times interest earned.
b) Receivables turnover.
c) Payout ratio.
d) Acid test ratio.
e) Operating profit margin.

1.33. Which of the following transactions or events would generally qualify as an extraordinary item?

a) Losses with respect to inventories due to an unforeseen technological breakthrough.
b) Losses from a fluctuation in foreign exchange rates due to a major stock market collapse.
c) Expropriation of a corporation’s land and building for highway expansion.
d) Income tax reductions on utilization of previously unrecognized prior period losses.
e) Losses suffered due to inadequate fire insurance coverage.

1.34 Assume you are employed as the chief accountant for DrawPro Inc., a computer software company. The company was developing a new software program called Graphics Tool. At the end of the year, the director of research estimated that $1 million was spent during the year for the Graphics Tool program. He asked you to reduce his expenses by capitalizing $1 million as research and development costs.

Prior to capitalizing the research and development costs, which of the following questions would **NOT** be considered in ensuring that your statements would be in accordance with generally accepted accounting principles?

a) Has the future market for Graphics Tool been clearly defined?

b) Is the Graphics Tool program technology feasible?

c) Are the costs related to research activities or development activities?

d) Does management have the desire to launch the Graphics Tool program upon completion?

e) All of the above questions would be considered.

1.35 On July 1, 1999, X Ltd. acquired 75% of Y Ltd.'s outstanding voting shares for $300,000. Y Ltd.'s identifiable assets and liabilities were equal to their carrying values on July 1, 1999. During 1999, Y Ltd. paid $40,000 in cash dividends to its shareholders. The following condensed balance sheet information relates to Y Ltd.:

	Dec. 31, 1999	**Jan. 1, 1999**
Total assets	$520,000	$450,000
Total liabilities	$100,000	$100,000
Common shares – no par	186,000	186,000
Retained earnings	234,000	164,000
	$520,000	$450,000

In its single entity financial statements, what amount should X Ltd. report as 1999 earnings from its subsidiary, Y Ltd.?

a) $110,000.

b) $82,500.

c) $52,500.

d) $41,250.

e) $26,250.

1.36(+) Bonds due in 5 years were sold at $104,158 on January 1 to yield an effective interest rate of 7% compounded semi-annually. Face value of the bonds is $100,000 and the annual coupon rate is 8%. Cash interest is paid semi-annually. What is the interest expense for the first 6-month period using the effective interest method?

a) $3,500.
b) $3,646.
c) $3,584.
d) $4,166.
e) $4,416.

1.37 According to generally accepted accounting principles, an industry segment must be disclosed separately if the

a) industry segment is completely unrelated to the major revenue producing activity of the organization.
b) industry segment is operating in a foreign country.
c) industry segment's revenue is equal to ten percent of the total segment revenue of the organization.
d) industry segment's operating profit is identifiable.
e) industry segment results from vertical integration.

1.38 (+) On December 9, 1998, Company X, a Canadian company, acquired inventory from a British supplier for £100,000, with payments due in British pounds (£) on January 8, 1999. Exchange rates for the British pound were as follows:

December 9, 1998	£1 = $1.50
December 31, 1998	£1 = $1.55
January 8, 1999	£1 = $1.57

For Company X, with a December 31 year end, these transactions resulted in a foreign currency transaction

a) loss of $0 in 1998 and loss of $7,000 in 1999.
b) loss of $5,000 in 1998 and loss of $2,000 in 1999.
c) gain of $5,000 in 1998 and gain of $2,000 in 1999.
d) gain of $0 in 1998 and gain of $7,000 in 1999.
e) loss of $55,000 in 1998 and loss of $2,000 in 1999.

1.39 (-) In fund accounting for a church, which of the following would **NOT** be included in the balance sheet?

a) Short-term (temporary) investments.
b) Unrestricted funds.
c) Receivables.
d) Estimated commitments.
e) Retained earnings.

1.40 (-) In governmental accounting, the encumbrances account is debited when goods are

a) received.
b) ordered from suppliers.
c) paid in full.
d) placed into service.
e) sold.

Taxation

1.41 ABC Ltd. is a Canadian-controlled private corporation operating a transport business in Ontario. The company has a taxable income of $210,000 for the year with income from active business carried on in Canada of $150,000. Assuming ABC Ltd. is not associated with any other corporations operating in Canada, the maximum amount that would be eligible for the small business deduction is

a) $210,000.
b) $200,000.
c) $150,000.
d) $100,000.
e) none of the above.

1.42 What was the primary purpose of introducing the goods and services tax (GST)?

a) To remove the inequities in the federal sales tax system.
b) To raise additional funds to pay down the federal deficit.
c) To tax corporations and small businesses on the consumption of goods and services.
d) To shift the burden of taxation away from the individual.
e) To raise additional funds by introducing a new tax that would be equitable for all taxpayers in all tax brackets.

1.43 When calculating net income for tax purposes, which of the following would **NOT** be added back to accounting net income?

a) Depreciation, amortization and depletion.
b) Charitable contributions.
c) Loss on disposal of assets.
d) Income tax provision.
e) None of the above (i.e., all of the above would be added back to accounting net income).

1.44 Which of the following statement(s) pertaining to the Manufacturing and Processing Profits Deduction is **FALSE**?

a) The deduction is limited to 7% of the corporation's manufacturing and processing profits eligible for the small business deduction.

b) The deduction is intended to stimulate economic growth in the manufacturing and processing industry.

c) At least 10% of a corporation's gross revenue for the year for all active business must be from the sale or leasing of goods that are manufactured or processed.

d) Farming, fishing, construction and various resource activities are excluded from the deduction.

e) The deduction reduces the net rate of federal tax on manufacturing and processing income to 21%.

145 (+) On November 1, 1999, Ken Walker sells a capital property for $300,000. The adjusted cost base of the property is $110,000 and selling costs amount to $8,000. Ken receives an immediate cash payment for the entire sales price on November 10.

The total taxable capital gain that would be included in Ken's net income for tax purposes for 1999 would be

a) $182,000.

b) $190,000.

c) $136,500.

d) $142,500.

e) $118,000.

1.46 (+) During the current year, a manufacturer provided a Mercedes-Benz for its chief executive officer. The car was purchased by the company for $60,000 and was available to the CEO throughout the year. During the year, the CEO drove the car 50,000 kilometers for business purposes and 12,000 kilometers for personal travel. Operating costs for the year were $17,500.

The standby charge applicable to the CEO for the use of the car is

a) $14,400.

b) $12,960.

c) $1,200.

d) $10,200.

e) none of the above.

1.47 (+) Jane Thomas has $30,000 to invest. Her marginal federal tax rate is 29%. Jane has decided to invest the above amount in preferred shares offering a cumulative, non-participating dividend of 5% based on the current market price.

Assuming that the dividend is paid yearly, the annual after-tax income (ignoring provincial tax) that would be generated by the above would be

a) $684.

b) $1,206.

c) $1,500.

d) $440.

e) none of the above.

1.48 For income tax purposes, which of the following statement(s) with respect to a deemed resident is **FALSE**?

a) A person who either enters or leaves Canada part way through the year on a permanent basis is a deemed resident.

b) A deemed resident is taxed on his/her worldwide income in Canada regardless of where he/she lives.

c) A person who has sojourned in Canada for a period greater than 183 days is a deemed resident.

d) A deemed resident can be a corporation under certain conditions.

e) A deemed resident is taxed as a full-time resident.

1.49 If a Class 43 asset is sold for proceeds that are greater than the undepreciated capital cost of the class but less than the capital cost of the asset, the sale will give rise to

a) an allowable capital loss and a terminal loss.

b) an allowable capital loss and a recapture of capital cost allowance.

c) a capital gain.

d) a recapture of capital cost allowance.

e) a terminal loss.

1.50 The establishment of an investment company in order to split income among members of a family would be an example of

a) tax avoidance.

b) tax evasion.

c) tax planning.

d) tax fraud.

e) both b) and d) above.

1.51 (-) Which of the following statements does **NOT** apply to the taxation of a corporation?

a) A corporation can choose any fiscal year that does not exceed 53 weeks.
b) Installments, when required, must be made on a monthly basis.
c) The filing deadline is four months after the fiscal year end.
d) Taxes payable are generally due within two months of the fiscal year end.
e) A corporation can be a deemed resident.

1.52 Mr. Rollet currently owns land (capital property) that he intends to transfer to Holdco using the "rollover" provision, subsection 85(1) of the Income Tax Act. The land has a fair market value (FMV) of $28,000 and an adjusted cost base (ACB) of $40,000. Mr. Rollet will receive from Holdco as consideration for the land, a $10,000 note and one of its no par value common shares. The minimum amount that Mr. Rollet can elect (which determines his deemed proceeds of disposition) under subsection 85(1) is

a) $28,000.
b) $40,000.
c) $10,000.
d) $38,000.
e) $30,000.

1.53 Which of the following is an allowable expense for calculating net income for tax purposes for a Canadian controlled private corporation?

a) Amortization expense.
b) Charitable donations.
c) Promotion expense.
d) Club dues and fees.
e) Income tax interest expense.

Solution to
June 2000
CMA Entrance Examination
Part 1

Note: The following are the solutions to the substitute items presented in Question 1 of this publication.

Answer Summary:

1.1	e	1.23	e	1.45	c
1.2	d	1.24	c	1.46	a
1.3	e	1.25	b	1.47	b
1.4	b	1.26	d	1.48	a
1.5	d	1.27	a	1.49	d
1.6	d	1.28	b	1.50	c
1.7	b	1.29	b	1.51	c
1.8	e	1.30	c	1.52	a
1.9	e	1.31	d	1.53	c
1.10	e	1.32	b		
1.11	d	1.33	c		
1.12	e	1.34	e		
1.13	c	1.35	d		
1.14	d	1.36	b		
1.15	a	1.37	c		
1.16	b	1.38	b		
1.17	b	1.39	e		
1.18	b	1.40	b		
1.19	c	1.41	c		
1.20	a	1.42	a		
1.21	a	1.43	e		
1.22	a	1.44	a		

Answer Explanations:

Management Accounting

1.1 Answer: e.

All the methods mentioned can be used to estimate costs.

1.2 Answer: d.

Units completed and transferred out (42,000 + 6,000 - 8,000)	40,000
Units in ending WIP complete as to direct materials	5,000
	45,000

Alternative calculation:

Units to account for (6,000 + 42,000)	48,000
Less units in ending WIP not complete as to direct materials	(3,000)
	45,000

1.3 Answer: e.

The static budget is based on one level of output and is not adjusted after it is finalized, regardless of changes in output or input prices, quantities, or costs. The flexible budget can be adjusted to the actual level of output achieved or expected to be achieved during the budget period. Both types of budgets can include variable costs and fixed costs. Both can be applied to an entire organization and its subunits, and both can use standard and/or absorption costing.

1.4 Answer: b.

Under normal costing, the cost of the job = actual direct costs + budgeted indirect costs: (250 x $200,000/65,000) + (45 x $247,000/15,000) + (50 x $20) = $769 + $741 + $1,000 = $2,510.

1.5 Answer: d.

Direct materials	$125
Machine set up (2 x $100/40)	5
Materials handling ($5 x 25)	125
Milling ($40 x 5)	200
Assembly ($20 x 3)	60
	$515

1.6 Answer: d.

Direct method: 10,000 + 20,000 = 30,000 total sq. metres
(10,000 ÷ 30,000) x $25,000 = $8,333.

1.7 Answer: b.

Breakeven = Fixed cost/(Unit price - Variable cost per unit)
= $200,000/($80 - $60)
= 10,000 units.

1.8 Answer: e.

Contribution margin per unit from company L:

Price		$1,350
Variable costs:		
Direct materials	$250	
Laser machine (4 x $15)	60	
Image machine (1 x $20)	20	
Variable overhead	200	530
		$ 820

Total contribution margin from company L ($820 x 240)	$196,800
Less cost of leased machinery to increase capacity	70,000
Total increase in income from company L's offer	$126,800

1.9 Answer: e.

The objective function can be described as $400F + $600P = maximum profit, where the decision variable F is the quantity of fishing boats and P is the quantity of pleasure boats.

1.10 Answer: e.

The sales forecast is the usual starting point for budgeting because production and inventory levels generally depend on the forecasted level of sales.

1.11 Answer: d.

Robert Motoz is held responsible for sales, costs and capital purchase decision for Division B. Therefore, Division B should be classified as an investment centre.

1.12 Answer: e.

Sales Mix Variance =
(Actual volume - Actual volume at budgeted mix) x Budgeted contribution margin

Regular –	(7,200 - 5,400) x $80 =	$144,000 F
Majestic –	(4,800 - 6,600) x $210 =	378,000 U
		$234,000 U

1.13 Answer: c.

Market Share Variance = (Actual market share - Budgeted market share) x Actual industry volume x Budgeted average contribution margin
= [(12,000/666,667) - (10,000/500,000)] x 666,667 x ($1,515,000/10,000)
= (.018 - .02) x 666,667 x $151.50
= $202,000 U

1.14 Answer: d.

Although Division X could receive \$112 from outside customers, they save \$10 in selling expenses. Consequently, transferring inside at \$112 - \$10 = \$102 leaves them in the same position as selling to outsiders at \$112.

Corporate Finance

1.15 Answer: a.

If the risk-free rate is higher than the rate of return on the industry's market portfolio, it would cause a negative value in the multiplication with the beta factor. The firm's expected value will be lower than the risk-free rate: R_m - R_f = -.02; therefore, R_f + 1.2(-.02) = R_f - .024. With an expected increase in the risk-free rate, Firm A's expected rate of return will increase from R_f - .024 to R_f - .012. Therefore, only choice a) is correct.

1.16 Answer: b.

PV of \$1,000,000 @ 6% for 7 periods	\$666,057
PV of \$40,000 per period @ 6% for 7 periods	223,295
	\$888,352

1.17 Answer: b.

An efficient market is characterized by a quick response (in terms of demand and supply) to new relevant information. Lower earnings than expected should trigger a drop in price, and if the market is efficient, the price will drop quickly.

1.18 Answer: b.

The average collection period is the weighted average period within which the value of receivables is collected. Acme's average collection period is 12 days: 0.2 x 0 + 0.6 x 10 + 0.2 x 30 = 12 days.

1.19 Answer: c.

A firm's capital structure is optimal if it maximizes shareholder wealth. Generally, a capital structure that maximizes the market value of a firm's common equity will, at the same time, maximize the total value of the firm and minimize the weighted average cost of capital.

1.20 Answer: a.

A mortgage bond is secured with specific fixed assets, usually real property. Thus, under the rights enumerated in the bond indenture, creditors will be able to receive payments from liquidation of the property in case of default. Hence, mortgage bonds are less risky than the others listed.

1.21 Answer: a.

The level of interest rates has no impact on the dividend decision.

1.22 Answer: a

Warrants are options that permit the holder to buy shares for a stated price. This exercise results in inflows of cash and the issuance of shares. A stock split is merely an accounting action that increases the number of shares outstanding. It does not generate additional capital. Conversion of convertible preferred shares to common shares is simply an exchange in types of shares. Issuance of a share right does not immediately affect shareholders' equity. When the right is exercised, shares are purchased and equity increases.

Financial Accounting

1.23 Answer e:

The acceptance of a mortgage as partial payment for land represents a significant non-cash transaction. That is, it is similar to a cash inflow with a simultaneous cash outflow and should be reported in the cash flow statement. Therefore, the sale of land should be recorded as a $250,000 inflow under investing activities and the mortgage should be recorded as an $80,000 outflow under investing activities. The net amount of $170,000 equals the actual net inflow to D Ltd.

1.24 Answer: c.

According to the matching principle, revenues and expenses should be matched with the periods to which they apply. Expenses should follow the revenues that they are expected to produce. For example, the cost of a large piece of equipment is expected to result in revenues in the future; therefore, it should be capitalized and written off (i.e., amortized) against future revenues.

1.25 Answer: b.

The total asset turnover ratio equals sales divided by total assets. An increase in reported inventory will increase total assets and decrease the ratio. Choices a), d) and e) are not directly affected by inventory. Fictitious inventory being recorded would increase choice c), not decrease it.

1.26 Answer: d.

Costs incurred to achieve future benefits should be capitalized and depreciated in periods during which the benefits are achieved. One of three future benefit conditions should be met:

1) Increased useful life.
2) Increased quantity of units produced from the asset.
3) Enhanced quality of the units produced.

In this case, both quantity and quality are increased, so the cost should be capitalized.

1.27 Answer: a.

Accounting information must be free of material error, but need not be 100% accurate. However, verifiability, representational faithfulness, neutrality and timeliness are all characteristics of accounting information according to the conceptual framework of financial accounting.

1.28 Answer: b.

1999: 5,000 + 3,000 + 4,000 + 6,000 + 8,000 - 10,000 - 12,000 = 4,000 units;
4,000 x $7 = $28,000.

2000: 4,000 + 14,000 - 15,000 = 3,000 units; 3,000 x $10 = $30,000.

1.29 Answer: b.

Basic earnings per share
= (net income - preferred dividend) ÷ (weighted average number of shares outstanding)
= ($1,000,000 - $150,000) ÷ (120,000 + 20,000 x ¼) = $850,000 ÷ 125,000 = $6.80.

1.30 Answer: c.

Payments made for items (such as insurance premiums for the following year) which do not have a benefit until the following year are set up in prepaids and then expensed in the applicable year. This provides for the matching principle to be met.

1.31 Answer: d.

According to generally accepted accounting principles for defined benefit pension plans, experience gains and losses should be amortized in a rational and systematic manner over the expected service life of the employee group covered by the plan.

1.32 Answer: b.

Activity ratios indicate how quickly certain assets can be turned into cash. This provides information related to how efficiently the enterprise utilizes its assets. The receivables turnover ratio is considered to be an activity ratio.

1.33 Answer: c.

Choices a), b), d) and e) do not qualify as extraordinary items because they result from risks inherent in the enterprise's normal business activities. The expropriation of land (choice c) is clearly unusual, infrequent and not a result of a management decision; therefore, it qualifies as an extraordinary item.

1.34 Answer: e.

In accordance with generally accepted accounting principles, development costs (but not research costs) can be capitalized if certain criteria are met. Choices a), b) and d) relate to three of the specified criteria for capitalizing development costs. Choice c) must be answered before even considering the criteria.

1.35 Answer: d.

X Ltd. would use the equity method in reporting Y Ltd. in its single entity financial statements. Therefore, 1999 earnings from Y Ltd. should be recorded as $41,250, i.e., ($234,000 beginning retained earnings - $164,000 ending retained earnings + $40,000 dividends) x 75% x ½ year.

1.36 Answer: b.

Using the effective interest method, the interest expense for the first 6 months that the bonds are outstanding is calculated as (7% x $104,158) x .5 = $3,646.

1.37 Answer: c.

Choices a), b), d) and e) do not provide specifics identifying if the industry segment would be material enough to warrant separate reporting. Choice c) meets one of the tests required for segmented reporting.

1.38 Answer: b.

When a foreign currency transaction gives rise to a receivable or a payable, a change in the exchange rate between the functional currency and the currency in which the transaction is denominated is a foreign currency transaction gain or loss that should be included as a component of income from continuing operations in the period in which the exchange rate changes. The transaction was recorded at $1.50 per British pound. At December 31, 1998, the exchange rate had risen to $1.55, so Company X should recognize a loss of $5,000 [i.e., ($1.55 - $1.50) x £100,000] in 1998. The 1999 recognized loss is $2,000 [i.e., ($1.57 - $1.55) x £100,000].

1.39 Answer: e.

In accounting for a not-for-profit organization such as a church, there is no ‘equity’ section on the balance sheet. Instead, fund balances are shown. All surpluses and deficits are reflected in the fund balances.

1.40 Answer: b.

In fund accounting, when a commitment is made to expend monies, the appropriations account is encumbered by debiting the encumbrance control account and crediting the fund balance reserved for encumbrances. The encumbrances account records the estimated amount of purchase orders, contracts, or salary commitments that are chargeable to an appropriation. Thus, encumbrances are recorded when goods are ordered from suppliers.

Taxation

1.41 Answer: c.

The small business deduction is calculated as 16% of the lower of taxable income, active business income carried on in Canada, and business limit of $200,000.

1.42 Answer: a.

The primary purpose was to remove the inequities in the federal sales tax system although secondary motivations may have been to raise funds and increase the tax base. The GST does not always result in equitable sharing of the tax burden since it affects high income earners and low earners alike. To alleviate this problem, the GST tax credit was also introduced.

1.43 Answer: e.

For choice a), CCA is deducted from net income instead of depreciation, amortization and depletion. For choice b), charitable contributions are calculated as a separate tax deduction. For choice c), losses on disposal of assets are calculated differently for tax purposes and are applied against capital gains. For choice d), income tax expenses are not deductible for tax purposes.

1.44 Answer: a.

The Manufacturing and Processing Profits Deduction is limited to the corporation’s manufacturing and processing profits **not** eligible for the small business deduction.

1.45 Answer: c.

Proceeds of disposition		$300,000
Less:		
Adjusted cost base	$100,000	
Disposition costs	8,000	118,000
Total capital gain		$182,000
Non-taxable (1/4)		45,500
Total taxable capital gain		$136,500

1.46 Answer: a.

($60,000)(.02)(12) = $14,400.

1.47 Answer: b.

Dividend @ 5% ($30,000)	$1,500
Gross up	375
Taxable dividend	1,875
Federal tax (29%)	(544)
Dividend tax credit ($375) x 2/3	250
Federal tax payable	$ 294

Therefore, after-tax income = $1,500 - $294 = $1,206.

1.48 Answer: a.

A person who either enters or leaves Canada part way through the year on a permanent basis is a part-year resident rather than a deemed resident.

1.49 Answer: d.

Because the proceeds were greater than the undepreciated capital cost, there is no loss for tax purposes. Because the proceeds were less than the capital cost, there is no capital gain. However, there is recapture of capital cost allowance that had been previously deducted and which must be added back to income for income tax purposes.

1.50 Answer: c.

Income-splitting is a tax planning technique that is nevertheless subject to the general anti-avoidance rule and the income attribution rules.

1.51 Answer: c.

The filing deadline for a corporation is six months after its fiscal year end.

1.52 Answer: a.

The minimum amount of the elected proceeds of disposition is equal to the greater of

1) the fair market value of the non-share consideration received (i.e., $10,000 note) and
2) the lesser of i) the fair market value of the property (i.e., $28,000) and ii) the adjusted cost base of the capital property (i.e., $40,000).

Therefore, the minimum amount is $28,000.

1.53 Answer: c.

Promotion expenses are allowable expenses for calculating net income for tax purposes for a Canadian controlled private corporation. Amortization expense (choice a) must be added back to income and CCA is deducted instead. Charitable donations (choice b) are not deductible in computing net income for tax purposes; instead they are deductible in computing taxable income. Club dues and fees (choice d) and income tax interest expenses (choice e) are not deductible for tax purposes.