CHARTERED
PROFESSIONAL
ACCOUNTANTS
CANADA
CFE CANDIDATE NUMBER:


# Common Final Examination September 9, 2022 - Day 3 (Booklet \#1 - Cases) 

## Total examination time: 4 hours.

Further details on the examination can be found on the next page.

## GENERAL INSTRUCTIONS BEFORE THE EXAMINATION

1. Fill in your 7 -digit candidate number on the booklets. The examination booklets (or paper response, as instructed) must be submitted before leaving the writing centre. They must NOT BE REMOVED from the writing centre. If these items are not received, the response may not be accepted.
2. Follow the instructions provided. Instructions must not be removed from the writing centre.
3. Sign the Policy Statement and Agreement Regarding Examination Confidentiality below.

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I affirm that I have had the opportunity to read the CPA Examination Regulations and I agree to all of its terms and conditions.

In addition, I understand that failure to comply with this Policy Statement and Agreement will result in the invalidation of my results, and may result in my disqualification from future examinations, expulsion from the profession and possible legal action.

## Examination Details

## The examination consists of:

Booklet \#1 - (this booklet)
Case \#1 (90 minutes)
Case \#2 (75 minutes)
Case \#3 (75 minutes)
Booklet \#2 - Rough notes
Times noted above are guidelines. Candidates are responsible for managing the time allocation.
The cases should be answered using the software provided, which includes a word processor and spreadsheet for inputting your response. Make sure that you indicate the case number before your answer to each case in the word processor and the spreadsheet. The main body of your response should be in the word processor file. Only supporting calculations should appear in the spreadsheet file, in Sheet 1. You are responsible for clearly explaining all your calculations.

Answers or part answers will not be evaluated if they are recorded using anything other than the software provided.

Rough-note paper is available in a separate booklet. Rough notes, and any other notations made in the examination booklets, will not be evaluated.

The CPA Canada Handbooks, the Income Tax Act and the Excise Tax Act are available in Folio Views throughout the entire examination. Folio Views provides the standards in effect and tax laws substantively enacted as at December 31, 2021.

A tax shield formula and other relevant tax information are available at the end of this booklet.

Candidates are instructed to consider and respond to each case as presented and ignore the potential impacts of COVID-19.

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Common Final Examination, September 2022
Chartered Professional Accountants of Canada
277 Wellington Street West
Toronto, Ontario M5V 3H2

## Case \#1

Claudia Garcia is a carpenter, and her husband, Rafael, is an architect. Together, they own STH Inc. (STH), a custom staircase manufacturing company. It is July 2, 2022, and you, STH's new controller, are in your first meeting.

Claudia: These past two years have been great. Our business is growing rapidly. We are now working with Canal Venture Capitalists (CVC), who is going to help take STH to the next level, and eventually an IPO.

Rafael: We recently purchased a commercial property and need your help accounting for it under IFRS (Appendix I). We can look into any other accounting issues later.

Claudia: We also need help with the costing of our orders. Here are the details of our manufacturing process, and our costing reports (Appendix II). For a start, please calculate the full absorption cost and the gross margin that we earned on order \#178. This client will place 10 additional orders identical to order \#178 if we reduce our selling price. Should we use the full absorption cost of order \#178 to establish the lowest selling price that will allow us to recover our costs for the additional 10 orders? If not, what would be the minimum acceptable price in order to not lose money on these 10 orders?

Rafael: Also, CVC said our ordering and delivery processes need to be stronger in order to keep growing STH. We have had issues recently. We started offering a wider selection of products, but our suppliers can't keep up with the higher volume. We hired new people on our packaging team, but it has been hard to get them trained quickly. We have also received some bad online reviews. As you look through the information provided, please discuss any operational weaknesses you identify in our processes, and recommend improvements (Appendix III).

CVC said we need a strong audit committee. Please review the current audit committee composition and the appropriateness of its current mandate, and provide recommendations (Appendix IV).

Also, CVC is concerned with the new covenants the bank requires us to meet (Appendix V). We would like to know whether we would have been in compliance as at December 31, 2021. Please note any areas of concern, so we can adjust as necessary, to comply going forward.

Claudia: Lastly, STH will be audited for the first time for the December 31, 2022, year end. For the areas of revenue, inventory (i.e. raw materials, work-in-progress, and finished goods), and the bank loan, what procedures will the auditors likely perform? We are late with our 2021 tax return. Can you calculate STH's taxable income? I have sent you some information (Appendix VI).

## APPENDIX I

 INVESTMENT PROPERTYIn January 2022, we purchased a commercial property in an area of town that is gaining popularity. We paid $\$ 100,000$ for the land, $\$ 350,000$ for the building, $\$ 5,000$ in building inspection fees, and $\$ 2,000$ in lawyer fees, and the building should last 30 years. The building is currently vacant but we intend to start renting it out soon to earn some revenue, until its value is high enough for us to sell it.

To help us decide when to sell, our real estate agent sends us monthly reports on the estimated value of the building. For example, the June 30, 2022, report said that the property is worth $\$ 465,000$. The values in the reports are based on recent sales of similar properties in the area.

As this is our first time buying a property that we are not using for our regular business, we are unsure how to account for it currently, and going forward, given the accounting choices available. For now, we have recorded the property in property, plant, and equipment, and have not depreciated it.

## APPENDIX II MANUFACTURING PROCESS

Once a contract is signed, we input details in the costing software. As the employees work on an order, they record the materials used and the hours worked in the software.

Below are the costing reports for the month of June 2022, as well as some additional information.

## Direct Materials List Report

| Order \# | Contract Sales <br> Value (\$) | Wood <br> (square feet) | Glass <br> (panels) | Steel <br> (feet) | Other Materials <br> (feet) |
| :--- | ---: | :---: | ---: | ---: | ---: |
| 175 | 30,000 | 180 | 20 | 60 | 120 |
| 176 | 11,000 | 190 | 12 | 0 | 0 |
| 177 | 8,000 | 170 | 0 | 50 | 0 |
| 178 | 16,000 | 140 | 12 | 44 | 0 |
| 179 | 38,000 | 200 | 22 | 0 | 160 |
| 180 | 42,000 | 220 | 24 | 70 | 120 |
|  |  |  |  |  |  |
| Totals | 145,000 | 1,100 | 90 | 224 | 400 |

## Direct Materials Costing Report

- Wood (per square foot): $\$ 10$
- Glass (per panel): \$100
- Steel (per foot): \$35
- Other materials (per foot): \$80


## APPENDIX II (continued)

MANUFACTURING PROCESS

## Direct Labour Hours Report



## Additional information:

- Average hourly rates:
- Machinists: $\$ 35$
- Carpenters: \$40
- Labourers: \$20


## APPENDIX II (continued) MANUFACTURING PROCESS

## Rent Distribution Report



## Additional Information:

- Total rent is $\$ 13,000$ per month.
- In June 2022, depreciation of manufacturing equipment of $\$ 1,000$ was included in cost of goods sold.
- All work is completed in the shop, and the square footage of the wood used in an order is a good indication of the space and equipment used for that order.
- Sales commissions are $5 \%$ of the contract value.
- Website hosting costs are $\$ 50$ per month. Website traffic is growing rapidly. Our provider only offers basic services but has great customer service.
- Utilities are closely correlated to machinist hours: for each machinist hour, we incur $\$ 25$ of utilities.
- STH has no capacity constraints.


## APPENDIX III OTHER INFORMATION

## Website Excerpt on Steps for Customers to Follow

The process is simple:

1. Select product on the website.
2. Input the approximate measurements, for an automated quote. In one click, your quote and personal information is sent directly to our team.
3. Our sales team emails you to confirm the order details.
4. We send you a contract.
5. We come and take measurements.
6. Wait four to six weeks.
7. Your stairs arrive
8. Follow our easy installation instructions.
9. Use your new staircase!

## Online User Reviews

"Simple process? No way. I went through the process several times just to receive an email each time saying the products I selected on the website were not in stock. Good thing the stairs look great."

- Pier, April 30, 2022
"The quality is great, but client service is not. They didn't tell me when they would come to deliver. Luckily, I was home that day!"
- Anthony, May 25, 2022
"Something is not right here. I requested a quote and the next day received spam and phishing emails from other parties! Not to mention how slow their website is to load!"
- Jordan, June 12, 2022
"What a joke. They sent me the wrong order, and then expected me to repack and return the large boxes to them."
- Monique, June 22, 2022


## APPENDIXIV AUDIT COMMITTEE

## Members

- Chair, Renata Garcia, CPA. Renata is Rafael's sister, and works for an accounting firm that specializes in taxation and owner-managed businesses.
- Member, Rafael Garcia. As the board chairman, chief executive officer (CEO), and owner of STH, Rafael is intimate with details of the company's financial statements and operations.
- Member, Lilian Phan, is a chartered financial analyst (CFA). As a senior executive at CVC, Lilian has helped many companies grow into prosperous public entities.


## Mandate

- Annually approve the financial statements
- Appoint external auditors
- Periodically review whistleblower complaints submitted to the CEO


## APPENDIX V

## LOAN COVENANTS AND FINANCIAL INFORMATION

## Covenants Effective July 1, 2022

- Working capital ratio of no less than 0.5
- Debt to equity not exceeding 2:1
- Bank loan to EBITDA not exceeding 4:1
- Unmodified audit report within 90 days of year end
- Report cybersecurity breaches within 30 days of identification

Key Balance Sheet Amounts at December 31, 2021

| Current assets | $\$$ | 165,000 |
| :--- | :--- | ---: |
| Total assets | $\$$ | $2,250,000$ |
| Current liabilities | $\$$ | 225,000 |
| Bank loan | $\$$ | 600,000 |
| Total liabilities | $\$$ | $1,300,000$ |
| Total equity | $\$$ | 950,000 |

## APPENDIX VI <br> TAX INFORMATION

STH Inc.
Income Statement
For the year ended December 31, 2021
(Unaudited)

| Revenue | $\$$ | $2,040,000$ |
| :--- | ---: | ---: |
| Cost of goods sold | $1,325,000$ |  |
| Gross margin | 715,000 |  |
|  |  | 112,000 |
| Marketing | 40,000 |  |
| Delivery | 20,000 |  |
| Insurance | 205,000 |  |
| Administrative wages | 35,000 |  |
| Office expenses | 14,000 |  |
| Meals and entertainment | 25,000 |  |
| Depreciation | 24,000 |  |
| Interest |  |  |
|  |  |  |
| Net income before taxes | $\$$ | 240,000 |

## Notes:

- Marketing expense includes a $\$ 5,000$ golf membership.
- Cost of goods sold includes $\$ 10,000$ of depreciation for manufacturing equipment.
- UCC ending balances from our 2020 return are as follows:

| Class 8 | $\$$ | 165,000 |
| :--- | :--- | ---: |
| Class 10 | $\$$ | 145,000 |
| Class 10.1 | $\$$ | 22,000 |
| Class 50 | $\$$ | 25,000 |

- In 2021, we sold all our vehicles and outsourced all deliveries. The delivery trucks sold for $\$ 100,000$ and the only passenger vehicle sold for $\$ 15,000$, which were their carrying amounts at that time. During the year, we purchased $\$ 120,000$ of manufacturing equipment, $\$ 16,000$ of computers, and $\$ 5,000$ of furniture.


## Case \#2

TFS Ltd. (TFS) is a farm-supply retailer located in Ontario, incorporated in 1985 by Tamara Hynes. TFS has three divisions: Feed, Seed, and Farm Supplies. Tamara explains that all three divisions are important, as they complement each other. TFS's clientele ranges from small farmers to large corporate farms. TFS's success is largely due to providing exceptional customer service, including Tamara's countless hours of work and her frequent visits to customers' farms. TFS also offers generous credit terms to its customers, which the small farmers take advantage of, resulting in a very large accounts receivable balance aged 90 days and over. These farmers have always paid, in cash, at the end of the season.

Gary is the business manager who usually handles the accounting, with the help of Paul, the bookkeeper. TFS's financial statements are prepared in accordance with ASPE. However, Gary has taken a leave of absence due to illness. You, CPA, have been engaged by Tamara as a consultant, to perform Gary's duties.

It is November 15, 2022, and you meet with Tamara, who begins: "I am considering selling a portion of my shares to John and Scott, two long-time employees, making the three of us equal owners. Before Gary went on leave, he said we should see if I could use the lifetime capital gains deduction (LCGD) when I sell my shares. Please explain to me what the LCGD is, whether I could use it, and what could be done to ensure that my shares are qualified small business corporation (QSBC) shares when the time comes to sell. Here is TFS's draft balance sheet at October 31, 2022 (Appendix I).
"I have been operating my business by myself all these years. John, Scott, and I will now be operating the business together. Are there any broader considerations that I should factor in, when deciding whether to sell shares to John and Scott?
"The three of us have agreed upon a selling price for the shares, and I am considering personally loaning each of them a portion of the selling price. Can you suggest any improvements to the financing proposal (Appendix II)?"

After making notes on the financing proposal, you meet with John and Scott (Appendix II).
Tamara later asks you to finalize the divisional allocations of revenues and costs that Gary did not complete, for the year ended October 31, 2022. Based on preliminary numbers, Tamara thinks the Farm Supplies division is not as profitable as the other two divisions, and would like your opinion. She provides a draft divisional income statement and Gary's notes on the required adjustments (Appendix III).

Tamara has become concerned that there may be several weaknesses in TFS's accounting processes. She would like you to discuss the control weaknesses you identify, and recommend improvements (Appendix IV).

Lastly, Tamara tells you about some inventory issues, and asks whether the inventory balance needs to be adjusted in the October 31, 2022, financial statements (Appendix V).

## APPENDIX DRAFT BALANCE SHEET

TFS Ltd.
Draft Balance Sheet
As at October 31

|  | 2022 |  | 2021 |  |
| :---: | :---: | :---: | :---: | :---: |
| Assets |  |  |  |  |
| Current assets |  |  |  |  |
| Cash (Note 1) | \$ | 1,418,000 | \$ | 1,653,000 |
| Short-term investments |  | 399,000 |  | 321,000 |
| Accounts receivable |  | 1,439,000 |  | 1,250,000 |
| Inventory |  | 1,011,000 |  | 989,000 |
| Income taxes receivable |  | 100,000 |  | 0 |
|  |  | 4,367,000 |  | 4,213,000 |
| Property, plant, and equipment |  | 2,915,000 |  | 2,016,000 |
|  | \$ | 7,282,000 | \$ | 6,229,000 |

## Liabilities

Current liabilities

| Accounts payable | \$ | 673,000 | \$ | 556,000 |
| :---: | :---: | :---: | :---: | :---: |
| Income taxes payable |  | 0 |  | 21,000 |
| Shareholder loan |  | 521,000 |  | 612,000 |
|  |  | 1,194,000 |  | 1,189,000 |
| Shareholder's equity |  |  |  |  |
| Share capital |  | 100 |  | 100 |
| Retained earnings |  | 6,087,900 |  | 5,039,900 |
|  |  | 6,088,000 |  | 5,040,000 |
|  | \$ | 7,282,000 | \$ | 6,229,000 |

Note 1 - TFS carries a significant cash balance in order to finance big inventory purchases. To receive higher discounts on its spring inventory, it makes large down payments to its suppliers in November and December.

## APPENDIX II SALE OF SHARES TO JOHN AND SCOTT

## Financing Proposal

Amount to finance: $20 \%$ of the selling price for John and for Scott

Interest rate:
2\%
Security:
None
Term and payment: 20 years, blended monthly payments

The repayment term is long because John and Scott will finance the remainder of the selling price through a bank loan, bearing interest at $5 \%$ per annum. Tamara hopes they will pay her loan back faster using the substantial yearly dividends and divisional net-income-based bonuses that owners and managers receive, per TFS's policy. Because she has known John and Scott for so long, Tamara does not believe security is necessary.

## Discussion with John and Scott

John and Scott are in their late thirties, highly energetic, and have many ideas for modernizing the company.

John: Tamara wastes so much time visiting farmers. We want to start using online ordering and maybe even use self-checkouts, to save on salaries.

Scott: Some farmers take forever to pay, and the accounts receivable balance is always high. We think it would be a great idea to switch to electronic payments only, just like the big retail stores.

John: Perhaps we should just shut the Feed division down. It takes so much of our time that there is little left to spend with our families.

## APPENDIX III DRAFT DIVISIONAL INCOME STATEMENT

For the year ended October 31, 2022

Sales
Cost of sales
Gross margin
Operating expenses
Insurance
General and administration

Professional fees
Repairs and maintenance
Vehicle expense
Wages and benefits
Total operating expenses
Net income

| Seed |  | Feed |  | Farm Supplies |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| \$ | 4,105,000 | \$ | 3,795,000 | \$ | 4,230,000 |
|  | 2,595,000 |  | 2,295,000 |  | 3,250,000 |
|  | 1,510,000 |  | 1,500,000 |  | 980,000 |

Additional Information:

- Paul posted all the entries related to the sale of 3,170 bags of seeds to the Feed division, rather than the Seed division. These bags were delivered mid-October and all of our deliveries are FOB destination. These bags cost $\$ 12$ each, and are marked up by $33 \%$.
- Some allocations were not yet performed when Gary left. The purchases of the bags of seeds in the table below were recorded entirely to the Farm Supplies division. Gary initially recorded annual fuel costs, and Tamara's and Paul's annual compensation, entirely in the Farm Supplies division. Fuel was purchased at an average price of $\$ 1.10$ per litre, and the trucks consume, on average, 30 litres for every 100 kilometres driven.


## APPENDIX III (continued) DRAFT DIVISIONAL INCOME STATEMENT

The information Gary intended to use for the allocations is as follows:

|  | Seed | Feed | Farm Supplies |
| :--- | :---: | :---: | ---: |
| Delivery trucks mileage in kilometres | 105,500 | 95,200 | 108,300 |
| Tamara's hours | 790 | 1,290 | 840 |
| Bags of seed purchased | 16,250 | 24,375 | 0 |
| Paul's hours | 410 | 590 | 440 |

- Total cost of Tamara's and Paul's annual compensation: \$156,000
- Tamara receives an annual salary and Paul earns $\$ 25 /$ hour
- Tamara's total hours worked: 2,920
- Paul's total hours worked: 1,440


## APPENDIX IV

ACCOUNTING SYSTEM AND PROCESSES

TFS's point-of-sale system is used to track inventory, sales, and receivables, and cannot be integrated with the accounting software. Every morning, Paul manually enters the previous day's summary sales/inventory information into TFS's "off-the-shelf" accounting software.

Paul does not use the payables module of the accounting software. He keeps all invoices in a filing cabinet, goes through them once a month, selects the ones that are due, and prepares the cheques for payment. Rather than enter individual invoices, he records the total payment in the system.

All cheques are signed by Tamara or Gary; whomever signs the cheques reviews the supporting documents.

Paul performs the bank reconciliations monthly using a spreadsheet, which takes a long time due to the large number of transactions in a month. As Tamara does not understand bank reconciliations, she does not review them.

Gary records the allocation entries to the divisions once a year. There are many entries, and he manually tracks the amounts in a spreadsheet. Because he has been with the company for so long, no one reviews Gary's entries.

## APPENDIX V INVENTORY ISSUES

During our inventory count, we discovered that some seed inventory was damaged by a leak in the warehouse. We left it in inventory because one of our customers can use it as a by-product. The normal selling price of these seeds is $\$ 60,000$, and the customer will buy them next week for $25 \%$ of this price. The cost of these seeds is $\$ 42,000$

On October 30, one of our trucks, which was taking feed with a cost of goods sold of $\$ 17,000$ to a customer, broke down on the way, causing the delivery to be delayed. We stored the feed in a temperature-controlled warehouse that we found on the way, at a cost of $\$ 1,000$. The goods arrived at the client's premises on November 2, 2022.

## Case \#3

It is April 15, 2022, and you, CPA, work at McDonald \& Tilley. You have been asked by the partner, Grace, to help with Brokers Inc. (Brokers), a new client. Brokers will operate a bar, which will open on June 1, 2022.

Grace begins: "Brokers is owned by Janine, who has a background in human resources, and Ann, who has bookkeeping and retail experience. They have spent months working on their business plan for a unique bar idea on George Street in St. John's, Newfoundland. George Street is a famous downtown pedestrian street that has approximately 40 restaurants and bars within a few city blocks. Over the years, some bars have thrived while others were only open for a short time. Due to their successful careers, Janine and Ann have funds readily available, and initial cash projections look positive.
"Brokers' business concept, which is in line with provincial regulations, is that its selling prices will vary throughout the day and night, similar to the way the stock market fluctuates. Several times during operating hours, the virtual stock market will "crash" and drink prices will drop, similar to a happy hour but without a fixed time. Clips of the actual stock market crash of 1929 will play on big screens, along with music, to notify customers of the temporary price drop, after which time prices will gradually return to normal. At all other times, the prices will be comparable to the standard prices charged in the local area. The owners spent extensive time conducting customer surveys and doing market research. The response was overwhelmingly positive, and people are looking forward to this new, and different, bar. Brokers was incorporated on January 1, 2022, and prepares its financial statements in accordance with ASPE.
"Brokers had custom software developed. Ann needs advice on how to account for the costs related to this software (Appendix I).
"Also, Brokers has the option to purchase equipment and finance it with a bank loan, or to opt for a capital lease from the vendor. Janine and Ann would like your advice as to which financing option is preferable (Appendix II).
"They also need help determining what the selling price for a pint of beer should be during the "stock market crash." Brokers will brew and only sell its own beer and does not want to sell at a price lower than its full production cost at any time. Janine and Ann have provided information on beer production (Appendix III).
"Audited financial statements will be required. Ann wants to be as prepared as possible for the auditors, and asked us to discuss procedures that the auditors will likely perform on the software, new equipment, and capital lease in case this option is chosen.
"Once the bar is successful and showing positive cash flows, Janine and Ann want to withdraw some funds from the company for personal use. They want to know their options, and the impact of each option from a personal and corporate tax perspective. They also want to know how the various components of the software, and upcoming equipment purchase or capital lease, will be treated for tax purposes.
"When they prepared their business plan, Janine and Ann considered the opportunities and risks related to their business venture. However, they have been so focused on getting things ready that they think they may have omitted some factors in their assessment. They would like us to provide our own objective assessment."

## APPENDIX I <br> SOFTWARE COSTS

Brokers needed software that would change drink prices without dropping prices too low, or too often. It also needed to be able to integrate with the point-of-sale system, to accurately report and record daily sales. Brokers contracted Roy, a retired software engineer who worked on large projects for big companies, to create software that would meet these needs.

In January 2022, Brokers incurred the following costs related to the software:

- Market research, to determine whether there was interest in this business idea: $\$ 3,000$
- IT consulting, to determine the type of system that Brokers would need: $\$ 4,000$

Roy invoiced for his time, based on the following phases of the project:

| February 2022 | Design | $\$$ | 5,600 |
| :--- | :--- | :--- | ---: |
| February 2022 | Software implementation | $\$$ | 24,300 |
| March 2022 | Documentation | $\$$ | 5,800 |
| March 2022 | Testing | $\$$ | 2,500 |
| June 2022 to May 2023 | IT support (Note 1) | $\$$ | 24,000 |

Note 1 - Roy has agreed to be on call for one year for any technical issues, at a cost of $\$ 2,000$ per month. This service will start on June 1, 2022, but he has billed Brokers in advance.

All invoices submitted by Roy have been paid by Brokers.

## APPENDIX II EQUIPMENT FINANCING OPTIONS

## Breakdown of \$45,000 of Equipment Costs

- Six point-of-sale systems (computer hardware, screens, cash drawers): \$13,500
- Office computer: \$4,500
- Ten large screens for the bar and seating area: $\$ 8,000$
- Surround-sound system: \$19,000


## Financing Options

## Option 1 - bank loan

The bank requires security over all of Brokers' assets and a $\$ 5,000$ down payment, and will finance the balance at $5 \%$ annual interest over five years. Monthly blended payments will be $\$ 755$.

## Option 2 - capital lease

The vendor is offering a capital lease over five years, with payments of $\$ 900$ per month. This amount also includes routine maintenance by the vendor, and lease payments are to be made at the end of each month. At the end of the lease, Brokers will have the option to buy the equipment at its estimated fair value of $\$ 5,000$.

## Additional information

Brokers intends to use this equipment for its first seven to eight years of operation. Under Option 1, maintenance will be provided by a different vendor at a cost of $\$ 100$ per month.

## APPENDIX III

## BEER PRODUCTION

Based on market research, bars on George Street sell, on average, 68 kegs of beer per week. One keg contains 124 pints. The average selling price per pint of beer in downtown St. John's is \$11.

Production will be 10 kegs per day, seven days a week, which is the most we can produce. Production and sales costs are as follows:

| Item | Amount |  |  |
| :--- | ---: | ---: | :--- |
| Ingredients, including fermentable sugar and hops | $\$$ | 345 | per keg |
| Direct labour (includes benefits) | $\$$ | 18 | per hour |
| Utilities | $\$$ | 36,000 | per year |
| Rent | $\$$ | 7,000 | per month |
| Marketing | $\$$ | 27,000 | per year |
| General and administrative | $\$$ | 34,000 | per year |
| Indirect brewing labour | $\$$ | 41,000 | per year |
| Insurance | $\$$ | 1,500 | per month |
| Depreciation of brewing equipment | $\$$ | 200 | per month |
| Maintenance of brewing equipment | $\$$ | 500 | per month |

Each keg will require 12 hours of direct labour. The brewery will use $30 \%$ of utilities, and $40 \%$ of the rented space. Also, $15 \%$ of the insurance cost is related to the brewery. Thankfully, the price of ingredients is guaranteed by our supplier for the next six months, because we think we might need more as we encounter some spoilage in our first few months of operations, trying to perfect our recipe.

## End of Examination

## CPA COMMON FINAL EXAMINATION REFERENCE SCHEDULE

## 1. PRESENT VALUE OF TAX SHIELD FOR AMORTIZABLE ASSETS

Present value of total tax shield from CCA for a new asset acquired after November 20, 2018

$$
=\frac{C d T}{(d+k)}\left(\frac{1+1.5 k}{1+k}\right)
$$

Notation for above formula:
$C=$ net initial investment
$T=$ corporate tax rate
$k=$ discount rate or time value of money
$d=$ maximum rate of capital cost allowance

## 2. SELECTED PRESCRIBED AUTOMOBILE AMOUNTS

|  | 2021 | 2022 |
| :--- | ---: | ---: |
| Maximum depreciable cost — Class 10.1 | $\$ 30,000+$ sales tax | $\$ 34,000+$ sales tax |
| Maximum depreciable cost — Class 54 | $\$ 55,000+$ sales tax | $\$ 59,000+$ sales tax |
| Maximum monthly deductible lease cost | $\$ 800+$ sales tax | $\$ 900+$ sales tax |
| Maximum monthly deductible interest cost | $\$ 300$ | $\$ 300$ |
| Operating cost benefit — employee | $27 \phi$ per km of personal | $29 \phi$ per km of personal |
|  | use | use |
| Non-taxable automobile allowance rates |  |  |
| - first 5,000 kilometres | $59 \phi$ per km | $61 \phi$ per km |
| - balance | $53 \phi$ per km | $55 \phi$ per km |

## 3. INDIVIDUAL FEDERAL INCOME TAX RATES

## For 2021

| If taxable income is between |  |  | Tax on base amount | Tax on excess |
| :---: | :---: | :---: | :---: | :---: |
| \$0 | and | \$49,020 | \$0 | 15\% |
| \$49,021 | and | \$98,040 | \$7,353 | 20.5\% |
| \$98,041 | and | \$151,978 | \$17,402 | 26\% |
| \$151,979 | and | \$216,511 | \$31,426 | 29\% |
| \$216,512 | and | any amount | \$50,141 | 33\% |

For 2022

| If taxable income is between |  |  |
| ---: | ---: | ---: |
| $\$ 0$ and | $\$ 50,197$ |  |
| $\$ 50,198$ | and | $\$ 100,392$ |
| $\$ 100,393$ | and | $\$ 155,625$ |
| $\$ 155,626$ | and | $\$ 221,708$ |
| $\$ 221,709$ | and | any amount |


| Tax on base amount |  | Tax on excess |
| :---: | :---: | :---: |
| $\$ 0$ |  | $15 \%$ |
| $\$ 7,530$ | $20.5 \%$ |  |
| $\$ 17,820$ | $26 \%$ |  |
| $\$ 32,180$ | $29 \%$ |  |
| $\$ 51,344$ |  | $33 \%$ |

## 4. SELECTED INDEXED AMOUNTS FOR PURPOSES OF COMPUTING INCOME TAX

Personal tax credits are a maximum of $15 \%$ of the following amounts:

|  | 2021 | 2022 |
| :---: | :---: | :---: |
| Basic personal amount, and spouse, common-law partner, or eligible dependant amount for individuals whose net income for the year is greater than or equal to the amount at which the $33 \%$ tax bracket begins | \$12,421 | \$12,719 |
| Basic personal amount, and spouse, common-law partner, or eligible dependant amount for individuals whose net income for the year is less than or equal to the amount at which the 29\% tax bracket begins | 13,808 | 14,398 |
| Age amount if 65 or over in the year | 7,713 | 7,898 |
| Net income threshold for age amount | 38,893 | 39,826 |
| Canada employment amount | 1,257 | 1,287 |
| Disability amount | 8,662 | 8,870 |
| Canada caregiver amount for children under age 18, and addition to spouse, common-law partner, or eligible dependant amount with respect to the Canada caregiver amount | 2,295 | 2,350 |
| Canada caregiver amount for other infirm dependants age 18 or older (maximum amount) | 7,348 | 7,525 |
| Net income threshold for Canada caregiver amount | 17,256 | 17,670 |
| Adoption expense credit limit | 16,729 | 17,131 |

Other indexed amounts are as follows:

|  | 2021 | $\mathbf{2 0 2 2}$ |
| :--- | ---: | ---: |
| Medical expense tax credit - 3\% of net income ceiling | $\$ 2,421$ | $\$ 2,479$ |
| OId age security repayment threshold | 79,845 | 81,761 |
| Annual TFSA dollar limit | 6,000 | 6,000 |
| RRSP dollar limit | 27,830 | 29,210 |
| Lifetime capital gains exemption on qualified small business | 892,218 | 913,630 | corporation shares

## 5. PRESCRIBED INTEREST RATES (base rates)

| Year | Jan. 1-Mar. 31 |  | Apr. 1 - June 30 | July 1 - Sep. 30 |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | Oct. 1 - Dec. 31 |  |  |  |  |
| 2022 | 1 | 1 |  | 2 |  |
| 2021 | 1 | 1 |  | 1 |  |
| 2020 | 2 | 2 | 1 | 1 |  |

This is the rate used for taxable benefits for employees and shareholders, low-interest loans, and other related-party transactions. The rate is 4 percentage points higher for late or deficient income tax payments and unremitted withholdings. The rate is 2 percentage points higher for tax refunds to taxpayers, with the exception of corporations, for which the base rate is used.

## 6. MAXIMUM CAPITAL COST ALLOWANCE RATES FOR SELECTED CLASSES

| Class 1. | 4\% for all buildings except those below |
| :---: | :---: |
| Class 1. | $6 \%$ for buildings acquired for first use after March 18, 2007 and $\geq 90 \%$ of the square footage is used for non-residential activities |
| Class 1. | 10\% for buildings acquired for first use after March 18, 2007 and $\geq 90 \%$ of the square footage is used for manufacturing and processing activities |
| Class 8. | 20\% |
| Class 10. | 30\% |
| Class 10.1 | 30\% |
| Class 12. | 100\% |
| Class 13. | $\mathrm{n} / \mathrm{a}$ Straight line over original lease period plus one renewal period (minimum 5 years and maximum 40 years) |
| Class 14 | n/a Straight line over length of life of property |
| Class 14.1 | 5\% For property acquired after December 31, 2016 |
| Class 17. | 8\% |
| Class 29. | 50\% Straight-line |
| Class 43. | 30\% |
| Class 44. | 25\% |
| Class 45. | 45\% |
| Class 50. | 55\% |
| Class 53. | 50\% |
| Class 54. | 30\% |

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