



## DENSMORE CONSULTING SERVICES INCORPORATED

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### *2010 UFE Practice Simulations*

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**SECPROT** (5 hours)

Maurice University (MU) is a small university located in a mid-sized Canadian city. MU's faculties are renowned for doing excellent theoretical research that has led to commercial products being developed by private enterprises and government. Lately, MU has been under substantial financial pressure due to declining enrolment and reduced government funding.

During the last two years, researchers from the Faculty of Engineering developed an innovative wireless security protocol device – Secprot (Exhibit I). The Secprot technology has been written about in MU's alumni magazine and a local business paper. Although very promising, the technology is not yet ready for market. Further testing and enhancement of the product must be done. Once the designs are finalized, mass production could start in January 2010.

MU's Vice-President, Dr. Karla Marka, assumed the project as part of her responsibilities. In the past, MU has not pursued its research and Dr. Marka believes it has missed out on financial opportunities that would have benefited MU in the long run. She sees the possibility of a substantial commercial pay off from Secprot and is less concerned about the risk associated with the project.

On November 8, 2008, MU's Board of Governors met to discuss Secprot and its commercialization. Secprot has the greatest commercial potential of any recent discovery. As a result, the Board is very concerned about making the right decision on how to handle the project. However, after lengthy discussion, the Board was divided on what action to take. Notes from the meeting have been provided (Exhibit II).

In the end, the Board voted 5 to 4 in favour of having a feasibility study performed by an independent party selected by Dr. Marka. The study will determine if Secprot can successfully be commercialized and achieve MU's minimum return of 8%. To limit its exposure, the Board also voted to limit any further MU investment in Secprot to a maximum of \$900,000. Subject to positive results from the feasibility study, the investment would be made from special funding provided through the MU capital fund.

It is now November 10, 2008. Dr. Marka has engaged a national accounting firm, Lam Loopers LLP, Chartered Accountants (LLL) to perform the feasibility study on behalf of the Board as MU wanted a firm independent from its current auditors. Dr. Marka wants LLL to assess the feasibility of MU setting up a company to complete the development of Secprot and then sell it commercially. In addition, Dr. Marka would like LLL to inform her of any impact on MU's accounting policies as a result of Secprot's commercialization. She is not concerned with accounting policies for the proposed new company as she believes it can just use the same accounting policies as MU. She also wants you to address any other areas that she should consider.

You, CA, work for LLL and have gathered information on the proposed new company and market conditions (Exhibit III) and background information on MU (Exhibit IV). You also obtained information about the possible financing offers for the technology (Exhibit V) and plans regarding future operations (Exhibit VI). You have summarized other information gathered (Exhibit VII).

You have been asked by the engagement partner to draft the report to Dr. Marka and to include any engagement issues.

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**EXHIBIT I****SECPROT TECHNOLOGY DESCRIPTION**

Secprot unit – encryption hardware and software prototype

It is widely accepted that wireless networks are not secure. Accordingly, systems have been developed to provide security to wireless network users. Security is needed to control access to the wireless network and to ensure the information is kept private during transmission.

The most common security systems in the market today are Wired Equivalent Protocols (WEP) and Wi-Fi Protected Access (WPA). Secprot was created to provide significantly superior security than that given by either WEP or WPA.

Secprot is a tiny plug-in, containing special embedded software that fits into a Universal Serial Bus (USB) port of any laptop. The inventors, Professors Albert Areff and Colleen Signal, do not think there is a similar product like it in the world and believe it is vastly more secure than anything currently in the marketplace. They do not believe it can be “reverse engineered” and copied.

In fact, Professors Areff and Signal are so confident of their design that they have offered \$25,000 to anyone who can break the encryption they have developed. So far, no one has even come close.

**EXHIBIT II****NOTES FROM MEETING OF MAURICE UNIVERSITY'S BOARD OF GOVERNORS**

Dr. Jack Manheim: "How can we justify investing \$900,000 in a company to develop Secprot when we have decaying facilities and unhappy students, who don't even have the latest technology in their classrooms?"

Professor Emeritus Bonehead: "We do not want a risky venture. We will get a lot of mud on our faces if this fails. Quite frankly, we don't have a lot of excess dollars for non-university spending."

Mrs. Franklin: "Without taking some risk, there is no chance of good returns."

Dr. Marka: "MU does not have a penny to show from its research efforts to date. It would be nice to finally earn some return from all those efforts."

Mr. Bill Bellyache: "MU needs money soon given the shortfalls we face. I think we should just opt to sell the technology."

Mr. Jean Chanest: "MU must develop a better reputation for applied research. We are great with the theory, but not in the application. This would be a good opportunity to extend our reputation."

Dr. S.Q. Bart: "...this is a chance to do exactly that."

Chancellor Chin: "We cannot let this potential jewel get in the hands of U.S. corporate vultures. I mean venture capitalists. It would be wonderful to keep this as a Canadian development."

**EXHIBIT III****PROPOSED NEW COMPANY AND MARKET CONDITIONS**

MU would like to transfer the Secprot technology and related research assets to a newly formed company, Numco Limited (Numco), on January 1, 2009. Numco will have a December 31 year end. An excerpt of the current spin-off plan follows, but is subject to approval after comments from MU's auditors and legal advisors are received:

1. Numco will be wholly-owned by MU. It will issue shares to MU as consideration for the transfer of assets. Laboratory equipment worth approximately \$220,000 that was purchased over the last three years at a cost of \$311,000 will be transferred to Numco. This equipment has a net book value of \$247,000 and a remaining useful life of five years.
2. All intellectual property and patent applications will be transferred to Numco.
3. MU will invest up to \$900,000 in Numco in whatever form is deemed most appropriate.
4. Additional investors may be considered at some point in the future.
5. MU operates a ten year old Enterprise Resources Planning (ERP) system, installed in 1998, for its technology needs in finance and administration. Dr. Marka has talked to the sales representative of the system who says he believes that the relevant portions could be "segmented" so that Numco could use them.
6. MU has confirmed that Numco would be a Canadian controlled private corporation.

**EXHIBIT III (continued)****PROPOSED NEW COMPANY AND MARKET CONDITIONS**

Professor Areff wants to target the laptop market for the sales of Secprot. He believes Secprot will require more than a year of further development and will be ready for production by January 2010.

He has obtained estimates of the total laptop market for 2010 from two major distributors. Given the closeness of the estimates, he feels reasonably comfortable that this is the appropriate market size. The estimates are as follows (in millions of units):

	<u>2010</u>	<u>2011</u>	<u>2012</u>
Garner Group Market Estimate	102	115	127
Techpred Market Estimate	95	110	121

Both Garner Group and Techpred believe encryption technology will be sold with 1.5 to 2% of all laptops. The marketing consultant that Professor Areff has talked to predicts that Secprot could achieve a 15% market share of encryption technology in the first year, increasing to 17% for the next two years. All believe that a three-year time horizon is a realistic forecasting period given the rapidly changing technological environment.

Their view is that the market could bear a \$28 unit price for Secprot the first year and \$26 for the next two years. Software patches would likely have to be downloaded from time to time to retain the enhanced security of Secprot.

**EXHIBIT IV****MAURICE UNIVERSITY BACKGROUND INFORMATION****Description**

Maurice University (MU) was incorporated as a university in 1961. Its mission is to provide post-secondary education and conduct research. MU is a registered charity under the Income Tax Act and is exempt from income taxes.

MU uses the restricted fund method in accounting for and presenting contributions. The financial statements of MU include a statement of financial position that combines all funds as well as a statement of operations and changes in fund balances for each fund.

**Research Activities**

Under the terms of the professors' employment agreements, all intellectual property they create, while under the employment of MU, belongs completely to MU.

Professor Areff has abundant energy and a vision for the success of Secprot. He worked for a high-tech company in research and development prior to joining the university as a faculty member in 2001.

In 2001, the Faculty of Medicine transferred some cancer research to the Canadian Cancer Society without charge. In 2004, the Faculty of Engineering transferred a promising technology to a large Canadian corporation, which had agreed to fund a research chair at MU. The technology was not formally valued and did not prove very successful.

The costs to date of the Secprot commercialization have been estimated as follows by an MU financial analyst. They have been accounted for in MU's research fund:

Professors' time	\$340,000
Research and development contract (note 1)	138,000
PhD student labour	46,000
Code contract	17,500
Laboratory supplies	13,455
Preliminary patent costs	10,000
Manuals and books	<u>4,589</u>
	<u>\$569,544</u>

Note 1:

In 2006, the researchers entered into a software initiation contract with a high-tech company to speed up the software development side of Secprot.

**EXHIBIT V****FINANCING OFFERS****Bank Loan**

Professor Signel has talked to all of the chartered banks about financing the venture and none are interested, as the venture is still rather speculative. The best offer received was for a \$300,000 term loan at an interest rate of prime + 6%, plus a written guarantee from MU.

**Professors' Financing**

Each professor is prepared to put in \$50,000 of their own money into the project.

**Royalty Arrangement**

Professor Areff contacted a wealthy alumnus of the Faculty of Engineering to discuss the technology. Mr. Angus Amdeck has expressed interest in a royalty-based arrangement, whereby \$1.5 million would be advanced in exchange for a royalty equal to 6% of sales revenue to a maximum of \$2.5 million of royalties. This arrangement is subject to certification of the sales amounts to ensure there is no misstatement of the royalty payments. Mr. Amdeck said he was "burned" in a royalty agreement with an overseas company in the past. Dr. Marka wants to know how Mr. Amdeck's concerns could be addressed.

**EXHIBIT V (continued)****FINANCING OFFERS****LD Capital Inc.**

Dr. Marka has had three meetings with Canadian merchant bank LD Capital Inc. (LD). LD is interested in providing an unsecured loan of \$1.8 million under the following terms and conditions:

1. Interest rate equal to prime rate plus 11%, paid annually;
2. Annual principal repayments are required at the end of each of the four years;
3. LD approval of detailed financial projections; and
4. LD approval of other means of financing.

If there is a failure to pay interest and principal for any year, the remaining loan balance is convertible to equity of Numco at LD's option.

After one year, the loan can be repaid at any time, subject to a penalty. The penalty is calculated as the sum of:

1. Payment of all accrued interest;
2. Payment of an interest bonus equal to the interest that would be earned over a two year term;
3. A prepayment fee of 10% of the loan principal; and
4. A legal fees adjustment of \$24,000.

Numco must provide financial statements to LD within 90 days of its year end. The financial statements must have at least a review engagement report attached.

As part of your investigation, you decided to take a look at LD's current financial position on its website. The company's annual report contained the following financial information:

**EXHIBIT V (continued)****FINANCING OFFERS**

EXTRACTS FROM THE ANNUAL REPORT OF LD CAPITAL INC.  
BALANCE SHEET AS AT SEPTEMBER 30  
(in thousands of dollars)

	<u>Assets</u>	<u>2008</u>	<u>2007</u>
Current assets			
Cash		\$ 1,565	\$ 4,312
Loans receivable		785	748
Other assets		<u>22</u>	<u>32</u>
		2,372	5,092
Capital assets		56,015	61,398
Loans receivable		46,877	46,876
Investments (original cost of \$12,435)		<u>9,876</u>	<u>12,765</u>
		<u>\$ 115,140</u>	<u>\$ 126,131</u>
	<u>Liabilities</u>		
Current liabilities			
Accounts payable and accrued liabilities		\$ 888	\$ 948
Current portion of long-term debt		<u>4,050</u>	<u>4,050</u>
		4,938	4,998
Long-term debt		<u>86,452</u>	<u>90,502</u>
	<u>Shareholders' equity</u>		
Common shares		22,047	22,047
Equity		<u>1,703</u>	<u>8,584</u>
		<u>\$ 115,140</u>	<u>\$ 126,131</u>

**EXHIBIT VI****NOTES ON PLANS FOR FUTURE OPERATIONS****Production**

Numco plans to outsource production to a third party so that it can focus on its core business, the development and support of the technology. One contract manufacturer would be selected from a list of qualified candidates. The manufacturer would produce Secprot based on the electronic design files provided by Numco. The finished product would be stored in the manufacturer's warehouse and shipped directly to the customer. A web-based system would be used to provide shipping information to the manufacturer.

Production is expected to start in January 2010. Early quotes based on preliminary designs have a manufactured cost of \$16 per unit, including a \$2.20 per unit contingency. A minimum volume of 200,000 units per year is required by the manufacturer to guarantee this pricing. Testing costs of the finished product would average 10 cents per unit.

Because of the specialized nature of the production, a \$240,000 one-time set up cost in the first year of production is expected.

**Development and Administration**

Professors Areff and Signal are prepared to work for Numco at an annual salary and benefit package of \$100,000 each. They will continue to be directly involved with the development of the Secprot technology until the end of 2010, after which time they will provide production support. They will begin to work for Numco in January 2009.

An additional 12 employees will also be required at the same time. The total salaries and benefits for these employees are expected to be \$760,000 per year. Four of the employees will be directly involved with testing as well as creating prototypes and designs for production. Five will be involved with the creation of user manuals. Once these duties are complete (estimated to be by December 31, 2010), these nine employees will provide production and customer support. The remaining three staff will be clerical and administrative personnel.

**Selling and Marketing**

Four salaried sales employees, at \$125,000 each, will be hired when production begins. One sales contractor will be needed for the first year of production at a cost of \$150,000.

Selling costs, including trade shows, demos and promotion, would be \$500,000 during the first year of production and \$350,000 per year thereafter.

Advertising and travel would average \$250,000 per year once production starts.

**EXHIBIT VI (continued)****NOTES ON PLANS FOR FUTURE OPERATIONS****Patent, Regulatory and Royalty Issues**

Canadian and U.S. patents have been applied for in order to protect the Secprot technology. An intellectual property lawyer, contacted by Professor Signel, believes it will cost about \$50,000 to complete and obtain the North American patents for the technology. Of this amount, \$35,000 will be incurred in 2009. He also believes that it should not prove too difficult based on his preliminary work to date.

Regulatory approval of the technology will be required because it operates over the airwaves. Regulatory approval is expected to cost \$24,000 during the first year of production.

Numco would have to pay a royalty to the developer of some of the software code used in the product equal to 10 cents per unit sold.

**EXHIBIT VII****OTHER INFORMATION**

- The sales plan is to market the Secprot technology to the five largest laptop computer manufacturers. The Garner Group has said they would buy 200 demonstration units if the product can achieve the specifications set out by Professor Areff.
- In addition to the laboratory equipment to be transferred from MU, there would be \$45,000 of testing equipment needed in the first year as well as additional software totalling \$15,000. The useful life of the testing equipment is 5 years and the software's useful life is three years. PCs and laptops will be required at a cost \$18,000 in the first year and \$6,000 in the second year. Given the change in technology, the useful life of the computers is 3 years.
- MU says Numco could rent office premises and laboratory space for \$36,000 in 2009 and \$52,000 in the following years when additional staff will be needed.
- Numco is expected to contract out specialized research and development for \$190,000, of which \$145,000 will be incurred in 2009.
- Over the next year, Numco will need to create prototypes and finalize designs for mass production. It is expected that \$110,000 will be spent in the first year with another \$95,000 spent in the first year of production.
- MU's Faculty of Computer Science has offered to design a custom business and accounting system for Numco at a cost of \$50,000. This price is one quarter of commercial rates for similar custom systems because students would be used and it would be educational for them.
- Business property, liability and key-life insurance for the professors is expected to cost \$60,000 per annum.
- Communication and internet costs will be \$10,000 per year.

**EXHIBIT VII (continued)****OTHER INFORMATION**

The Board also asked Dr. Marka to supply you the following information; however, she does not feel either option is worth pursuing:

- On November 4, 2008, an American company, First Wire Technology Corporation, offered MU \$500,000 U.S. for the Secprot technology, payable in two equal instalments. The first payment would be paid upon closing, the second twelve months later. In addition, three-year employment contracts would be provided for the two key professors, subject to the approval of the patents. The offer expires on November 30, 2008. Dr. Marka believes that this means leaving too much value “on the table”.
- A British company, Alec Innovations Inc., has offered to hire the two professors effective December 1, 2009 and purchase the title to the Secprot technology created to date along with the patent applications for consideration of \$1.00 plus \$0.75 per unit sold over the next four years in Canadian dollars.
- The current Canada-U.S. exchange rate is 1.1566. The current Canadian prime rate is 5%.

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**BRUNO CONSULTING** (90 minutes)

Bruno Simon started Bruno Consulting Inc. (BCI) ten years ago in his hometown of Calgary. He got the idea of starting up a health and safety training company after he suffered injuries from a workplace accident.

Bruno conducts health and safety training seminars in major cities for small to medium sized companies. The seminars are held in each city once or twice a year. Bruno has also successfully published two workplace safety guides, which are sold through a national bookstore chain. These guides are included with registration in BCI's health and safety training seminars. Each registrant receives both safety guides during Seminar I.

It is now January 26, 2009. You, CA, have been hired by Bruno as a consultant.

BCI's bookkeeper, Jan, left unexpectedly at the beginning of this year. Jan was responsible for accounting, travel and venue bookings, processing cash receipts and making bill payments which left Bruno time to concentrate on developing and offering the seminars.

"Jan had been my bookkeeper for the past five years. I knew she had been thinking of retiring early, but I was shocked when suddenly she decided to drop everything and head to the beaches of Hawaii. She has done a pretty good job with all the bookkeeping and tax duties for the company. The only problem is that she kept a lot of things in her head and never wrote anything down."

"I need to train the new bookkeeper I hire. I want the new person to be a bit more organized compared to Jan in terms of recordkeeping. I have documented my operations (Exhibit I) for you to review. Any suggestions you have would be greatly appreciated."

"With Jan retiring, I am starting to think about that too. I have talked casually with other people who offer similar seminars about buying the company a year or so from now. Everyone seems to want comparative audited financial statements before they would even consider buying BCI. I am not sure how getting audited financial statements will impact the company or the work done by the auditors I hire. If I like your work, maybe I will ask your firm to be our auditors. Here are the financial statements that Jan prepared before she left (Exhibit II)."

**EXHIBIT I****NOTES ABOUT BCI'S OPERATIONS**

The Occupational Health and Safety Act (OHSA) require every workplace with 20 or more employees to establish a joint health and safety committee. At least two members of this committee must attend approved training to become certified members. The Workplace Safety and Insurance Board (WSIB), which enforces the OHSA, designated BCI as a training centre to offer the certification program. The certification process involves three seminars:

Seminar I – Basic Certification Training  
 Seminar II – Workplace Hazard Assessment  
 Seminar III – Workplace Hazard Training

**Seminars**

Three years ago, a website was created for BCI so prospective registrants can find information about seminar offerings and safety guides. Registrants can use the online discussion board to submit questions to Bruno.

Registration forms are available for download from the BCI website. Prospective registrants fill out the forms, indicating their preference of location and date, and mail the completed forms along with cash or a cheque payable to BCI. Pricing for the seminars is as follows:

Seminar I	\$1,200
Seminar II	\$1,300
Seminar III	\$1,800

Enrollment and seminars held during the previous two years were as follows:

	<u>Enrolled Students</u>		<u>Seminars Held</u>	
	<u>2007</u>	<u>2008</u>	<u>2007</u>	<u>2008</u>
Seminar I	180	230	6	7
Seminar II	120	150	4	5
Seminar III	220	240	5	5

Mail was always opened by Jan. Registration forms were filed away after processing, while cheques and cash were set aside by Jan for deposit into BCI's bank account. For each seminar application, Jan created an online profile for the individual on BCI's online discussion board, and then emailed the user ID and password to the registrant.

Class lists are maintained in Excel spreadsheets on a desktop computer inside the BCI office. For each registration form, Jan updated the applicable class list to track the number of registrants. At the beginning of each seminar, Bruno uses the class list to track attendance and as a checklist for distributing the course material (i.e., safety guide). Class sizes vary from 30 to 50 registrants depending on the seminar and location.

**EXHIBIT I (continued)****NOTES ABOUT BCI'S OPERATIONS****Guarantee**

To become certified members, an individual must pass the WSIB's national exam after completing the three seminars. Over the years, BCI has developed a reputation for successfully preparing its registrants to pass the WSBI national certification exam.

To further solidify its reputation, Bruno offers a money-back guarantee for individuals who enroll in the three-seminar certification program, but fail the actual exam. Registrants either receive a refund of the fee paid for Seminar III or they can re-enroll in Seminar III at no charge. Registrants wishing to take advantage of this offer are required to submit a copy of their exam results to BCI. Bruno recalls seeing approximately 10 to 15 cheques over the past year related to these refunds. Bruno liked this program because Jan told him there was no impact on the company's financial statements.

**Safety Guides**

Bruno reviews his safety guides in order to update them for changes in workplace health and safety legislation. New volumes are printed every other year.

BCI has an agreement in place with a national bookstore chain to carry the books throughout its stores in Canada and on the bookstore's online storefront. The retail price and quantity ordered for 2007 and 2008 are as follows:

	<u>2007</u>		<u>2008</u>	
<u>Title</u>	<u>Price</u>	<u>Quantity Ordered</u>	<u>Price</u>	<u>Quantity Ordered</u>
Workplace Safety	\$120	350	\$130	500
Hazard Assessment	\$150	440	\$160	650

The safety guides are shipped directly from the publisher to the bookstore's central warehouse. The bookstore remits money on an annual basis to BCI less a 40% sale fee. Where safety guides are unsold or damaged, they are sent back to BCI at the end of each year. In January 2008, BCI received a cheque for \$62,000 from the national bookstore chain relating to 2007 sales.

As the safety guides are given to registrants during the course, BCI also keeps an inventory of safety guides on hand. The publisher charges BCI \$25 for each safety guide that it prints and ships. The amount paid to the publisher for each order is recorded in inventory.

**Monthly Results**

At the end of each month, Jan provided the bank statement to Bruno for his review. Each transaction on the statement had a brief explanation for the activity (i.e., weekly registration deposit, cheques for course assistants, rent cheque, etc.). Bruno typically reviews the bank statements and the draft financial statements on a quarterly basis to assess BCI's financial performance.

**EXHIBIT I (continued)****NOTES ABOUT BCI'S OPERATIONS****Salaries and Fees**

Based on advice from Jan, Bruno takes a salary of \$85,000 from BCI in order to lower the overall tax payable from a combined personal and corporate viewpoint. In addition, Bruno received a dividend from BCI of \$92,550 in 2008.

At the end of each 5-day seminar, registrants write a practice exam to simulate the WSBI's national exam. Bruno hires two assistants for each seminar to help with the evaluation of the practice exams. As all registrants are required to use a laptop during the sessions, all practical exams are electronically submitted to the course assistants via the BCI online discussion board. The course assistants are expected to review and evaluate their allotted exams within four days of receiving the exams. Due to the electronic nature of the practice exams, the assistants do not interact directly with the students. The interaction is limited to the online discussion board where students are able to access their submitted exams and their exam grades. Bruno hires from a pool of assistants based on their availability for each course. BCI does not guarantee a minimum number of courses to each assistant.

Jan informed Bruno that she and the assistants are considered contractors for income tax purposes. BCI does not withhold nor remit Employment Insurance premiums or other related amounts because of this characterization. At the end of each course, each assistant submitted an invoice to Jan, who then issued a cheque to them for \$2,500. Jan was paid by cheque monthly.

**Travel and Other Benefits**

Jan booked a seminar room at community colleges at locations across Canada based on the number of registrants for each course. Facility costs are typically \$15,000 per course, including meals and refreshments served during the seminar.

Once the dates for the seminars are set, Jan booked airfare and hotel accommodations for Bruno for the out-of-town seminars. At the beginning of the year, \$5,000 was advanced to Bruno to cover his travel, accommodations and meals for out-of-town trips. This was done so Bruno would not have to keep all of his receipts. Bruno uses his own credit card to pay for travel related expenses, and submitted his monthly statement to Jan for payment to the credit card company.

While in Calgary, Bruno uses a car leased by BCI to get to the Calgary seminar locations. Bruno also meets with employers in Calgary to promote his courses to company employees.

**EXHIBIT II**

*DRAFT FINANCIAL STATEMENTS  
BRUNO CONSULTING INC.  
BALANCE SHEET  
As at December 31*

	<u>2008</u>	<u>2007</u>
<u>Assets</u>		
Cash and short-term investments	\$ 286,200	\$ 204,500
Inventory	92,750	50,000
Advances to Bruno	<u>5,000</u>	<u>5,000</u>
	383,950	259,500
 Computer equipment and software	 <u>35,000</u>	 <u>36,000</u>
	\$ <u>418,950</u>	\$ <u>295,500</u>
<u>Liabilities</u>		
Accounts payable	\$ 33,400	\$ 65,200
Bank loan	<u>50,000</u>	<u>50,000</u>
	83,400	115,200
<u>Shareholder's equity</u>		
Share capital	10,000	10,000
Retained earnings	<u>325,550</u>	<u>170,300</u>
	<u>335,550</u>	<u>180,300</u>
	\$ <u>418,950</u>	\$ <u>295,500</u>

**EXHIBIT II (continued)**

*DRAFT FINANCIAL STATEMENTS  
BRUNO CONSULTING INC.  
INCOME STATEMENT  
For the year ended December 31*

	<u>2008</u>	<u>2007</u>
Revenue		
Seminars	\$ 805,000	\$ 704,000
Safety guides	<u>169,000</u>	<u>108,000</u>
	974,000	812,000
Expenses		
Facilities rental	258,400	230,250
Fees – Assistants	100,000	95,000
Travel, accommodations and meals	99,550	87,600
Salary – Bruno	85,000	85,000
Salary – Jan	65,000	60,000
Office rent	40,000	36,750
Supplies	11,850	9,200
Vehicle lease	13,200	13,200
Amortization	<u>6,000</u>	<u>5,000</u>
	<u>679,000</u>	<u>622,000</u>
Income before income taxes	295,000	190,000
Income taxes	<u>47,200</u>	<u>34,200</u>
Net income	\$ <u>247,800</u>	\$ <u>155,800</u>

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**MARC INDUSTRIES** (80 minutes)

It is now July 6, 2009. You, CA, are the new controller of Marc Industries Inc. (MI). You report directly to the President.

MI manufactures and sells chemical processing equipment. A small portion of what MI sells is mass-produced and sold from inventory; the majority, however, is custom made. The company is 100% owned by venture capitalists and private Canadian investors, and is a Canadian Controlled Private Corporation. Management is under pressure to increase profits. MI has a December 31 year end and is audited by Derain & Co., LLP Chartered Accountants.

Contracts with customers can be fixed price contracts or “cost plus” contracts based on direct labour hours and out-of-pocket costs. MI tries to structure contracts based on the nature of the work to be performed but sometimes the customer will dictate the type of pricing to be followed.

MI recognizes revenue based on direct labour hours incurred on long-term contracts. As well, revenue is recognized upon shipment if the product is sold from existing inventory. MI’s total revenues are forecasted to be \$21.0 million for the current fiscal year. The President of MI approves all contracts up to \$2.5 million. Any contracts over that amount require approval from the Board of Directors.

Recently, Big Oil Inc., (BO) Canada’s second largest oil company, solicited a proposal from MI (Exhibit I) for the first time. At the same time, another possible contract is being discussed with Chem Processing Inc. (CP), a regular customer, for the construction of a portion of a chemical plant in Finland (Exhibit II). You spoke to more experienced MI employees regarding the two proposed contracts (Exhibit III) to gather more information.

The President commented, “I believe that these two contracts will increase our profits. I need to be aware of any accounting issues that may arise from these contracts. Make sure you review all aspects of these two proposals and present your findings in a memo to me.”

**EXHIBIT I****EXTRACTS FROM BIG OIL INC.'S REQUEST FOR PROPOSAL****Contract price**

\$1,000,000 Canadian dollars

**Deliverable**

One K104 unit

**Performance bond**

A project performance bond equal to half of the total contract price, issued by an insurance company with a minimum credit rating of AA, must be provided. The performance bond is callable by BO at any time and will have an expiry date of January 31, 2010.

**Billing schedule**

1. First month –10%
2. Third month – 25%
3. Fourth month – 65%

Payment terms will be net 30 days.

**Deadlines**

The proposal must be received at BO's head office by 12:00 p.m., Eastern Standard Time, on September 20, 2009. Work on the project must commence by October 1, 2009 and be completed by January 31, 2010.

**EXHIBIT II****INFORMATION CONCERNING CHEM PROCESSING INC. CONTRACT PROPOSAL**

CP has approached MI to supply a lithium expansion unit for a chemical plant it is building for the government of Finland. MI's chief engineer believes that CP will accept a fixed price of \$2,050,000. He also believes that there are no other companies that CP could reasonably contract to build the necessary unit.

Most of the initial construction of components will take place in Canada but the unit will be assembled in Finland, which would be a first for MI.

The currency of Finland is the Finnish\$. Sixty-two local Finland workers will be hired at 60 Finnish\$ per hour, 8 hours a day, for 32 days. Their job will be site preparation, foundations, assembly and testing.

Some key points in the CP request for proposal are the following:

1. During November 2009, two of MI's specialized engineers will be needed to carry out critical work on the contract, which must be complete before the end of December.
2. MI must sub-contract a \$440,000 contract to York Inc. for specialized components. No other contractor can be used for this work.
3. MI must meet all the specifications set out in the proposed contract before CP will accept the title and make the final payment of the remaining 50% of the contract price.

Our project management team have developed the following information:

- Estimated direct labour hours, including the specialized engineering time required, will be 5,412 hours
- A defiteraltor will have to be purchased from a third party supplier at U.S. \$400,000
- Other components and parts will cost \$561,000
- Travel to Finland will total \$32,000

**EXHIBIT III****NOTES FROM MEETING WITH MARC INDUSTRIES INC. EMPLOYEES****BO Contract**

MI will require the services of a heat exchange contractor for the BO proposed contract for a K104 unit. This company bills at \$200 per hour with a maximum billing of \$131,300 for this project. Best estimates have been used in the costing projections.

MI has never manufactured a K104 unit before. This unit will have a capacity that is 22.8% higher than the most advanced product currently available. Developing a K104 unit will require some research that should take about 1,050 engineering hours. MI's chief engineer does not believe this development time should be charged to the contract, so it was excluded from the cost analysis for the BO proposed contract.

For the entire second month of the BO proposed contract, one and a half specialized engineers will be required for the project to be successful.

The project management team's cost analysis for the BO proposed contract is as follows:

	<u>October 2009</u>	<u>November 2009</u>	<u>December 2009</u>	<u>January 2010</u>
Direct labour hours (Note 1)	1,450	1,690	1,520	1,100
Heat exchange contractor	\$ 78,500	\$ 22,500		
Specifications work	\$ 40,000			
Regulatory consultant		\$ 35,000		
Components	\$146,758	\$ 88,745	\$ 94,000	

Note 1: Direct labour hours include the time related to the one and a half specialized engineers required for the project.

**CP Contract**

Two senior MI engineers said CP is a painful customer to deal with. They also said, off the record, that the specifications in the CP proposed contract are very stringent and it is very possible that some of the specifications cannot be met.

For the CP lithium proposed contract, it will be necessary to use a new supplier for certain tubular components.

The country of Finland requires foreign companies supplying large contracts to set up a corporation in Finland. These corporations pay income taxes at the rate of 11%.

According to one project manager, the last time MI had a contract related to lithium, it went extremely over budget.

**EXHIBIT III (continued)****NOTES FROM MEETING WITH MARC INDUSTRIES INC. EMPLOYEES**Other information

MI's components are either manufactured in-house or purchased from outsiders. Any components purchased are normally paid for one month after received.

The six engineers in MI's specialized engineering unit are extremely busy on contracted work. The current schedule shows that they will have two engineers available in November 2009, but are not available again until March 2010.

MI's direct labour rate with benefits for all employees including engineers is \$38.00 per hour. MI allocates general overhead to projects at \$11.47 per direct labour hour.

MI can obtain performance bonds from its insurance company at a cost of 2% of the bond amount. When a performance bond is called, the insurance company pays the amount demanded by the caller, up to the face value of the bond.

The Finnish\$ exchange rate is currently 0.13444 Canadian dollar = one Finnish\$. The U.S. dollar can be purchased for \$0.97855 Canadian dollar.

**PARTS INTERNATIONAL** (70 minutes)

Parts International Ltd. (PIL) manufactures engine components for the automotive industry. PIL has been in business for over forty years, and is still owned by the founders, the Monarch family. The shares are currently held by the three Monarch brothers: Ted, Fred and Larry.

PIL operates out of two plants: one in Ontario and the other in Quebec. About ninety percent of PIL's revenue comes from sales to two customers: Ford and General Motors. The other ten percent of its revenue comes from sales to other automobile manufacturers and they vary from year to year.

It is December 5, 2008. You, CA, work for Beckham Chartered Accountants LLP. Your firm recently won the audit of PIL's December 31, 2008 financial statements by going through a tender process. You and your managing partner, Gary Beckham, recently attended a meeting with PIL's Chief Financial Officer (CFO), Melinda Monarch, to discuss the upcoming audit as well as some other issues that have developed recently. Your notes from the meeting (Exhibit I) along with PIL's projected financial statements for December 31, 2008 provided by the CFO (Exhibit II) are attached.

On the drive back to the office from the meeting, the partner asked you to prepare an audit planning memo for his review. He mentioned that client acceptance issues and dealing with the prior auditors has already been looked after. The partner also noted that the CFO had raised some interesting issues during their discussions. He asks you to prepare a draft report that addresses the CFO's concerns.

**EXHIBIT I****NOTES FROM THE MEETING WITH MELINDA MONARCH, CFO****Current Market Situation**

PIL has recently fallen on hard times as a result of a combination of factors. The appreciation of the Canadian dollar has made it more difficult for PIL to compete. With most of its costs denominated in Canadian dollars and revenues denominated in U.S. dollars, competitors in the United States have a pricing advantage. For now, PIL has decided to keep prices down to maintain as much sales volume and market share as possible. This has helped keep revenues relatively stable, but PIL is not able to earn a profit in the current environment.

PIL's bank has been supportive during this difficult time, but cannot be expected to stay on the side lines if profitability continues to decline. PIL has an operating line of credit that is secured by accounts receivable and inventory as well as long-term debt that is secured by capital assets. The maximum borrowing available under the operating line of credit is 60% of accounts receivable plus 50% of inventory. To be in compliance with the loan agreements, PIL must maintain a current ratio of at least 1.25:1, a maximum debt to equity ratio of 3.0:1 and EBITDA (earnings before interest, taxes, depreciation and amortization) to debt service costs (interest plus principal repayments of long-term debt) of at least 1.25:1.

In addition to the Canadian dollar appreciation, one of PIL's two largest customers has been experiencing declining sales. Ford has ordered fewer parts from PIL in each of the last three years. Increasing oil prices have had a negative impact on the demand for sport utility vehicles (SUVs), which happens to be Ford's best selling product. Ford is confident that it will be able to bring demand back by redesigning the SUVs to be more fuel efficient. However, this process may take a few years and means that both Ford and PIL must ride out the storm. Until recently PIL had been able to mitigate the decline in Ford orders by increasing sales to new customers. However, the Canadian dollar appreciation has made this increasingly difficult.

**Quebec Plant**

Historically, PIL's manufacturing plants in Ontario and Quebec operated at 70 to 80% of capacity. In 2008, the Ontario plant operated at about 50% of capacity, while the Quebec plant was around 35% as a result of declining demand.

PIL is considering shutting down the Quebec plant to reduce fixed costs such as management salaries, utilities, maintenance, insurance, etc. However, PIL must take into account an existing arrangement with the Quebec provincial government. Five years ago, PIL was able to successfully negotiate a property tax rebate agreement whereby the provincial government gave a rebate to PIL equal to the value of property taxes paid to the municipality. The ten year agreement has a penalty clause that requires PIL to repay all rebates received if PIL vacates the location within the ten year agreement period. Property tax amounts to \$150,000 per year. The CFO would like to know the impact of shutting down the Quebec plant. A projected divisional operating statement for 2008 is attached (Exhibit III).

**EXHIBIT I (continued)****NOTES FROM THE MEETING WITH MELINDA MONARCH, CFO****Taking PIL Public**

Over the years, the Monarch family has considered taking PIL public a number of times but has never followed through on the idea. Because PIL has grown so much, there are few private buyers who can afford to pay what it is worth. As such, taking the company public is the only viable option the Monarch family has had to sell their investment.

Recently, the Monarch family was approached by an investment banker with a proposal to sell PIL. He feels that PIL can be sold for \$70.0 million once a decision is made regarding production levels.

There is a Board of Directors meeting scheduled to discuss the proposal. Melinda has to make a presentation to the Board and recommend a course of action. She is leaning towards accepting the proposal, but would like your firm's independent perspective.

She has always thought that a five times earnings multiplier would be appropriate for this business.

**Foreign Exchange**

One issue that has been a source of frustration for the CFO is the fluctuation of the Canadian dollar. She explained:

“Almost 100% of our sales are in U.S. dollars, but the only thing we buy in U.S. dollars is raw materials. This is only 20 to 22% of our material costs. With the sliding US dollar, we have been hammered time and time again. What happens is that we deliver an order to our customers and book the sale at the rate of exchange at the time of the sale, then the U.S. dollar devalues and we end up taking a foreign exchange loss. It has not been so bad lately, but it was really bad for a six month period starting about a year ago. Right now, PIL has about \$30.0 million in receivables that are denominated in U.S. dollars, and about \$5.0 million in accounts payable that are denominated in US dollars. In addition, PIL has orders from customers over the next six months valued at \$60.0 million. We had \$2.5 million in foreign exchange losses in 2007.”

**EXHIBIT II****PROJECTED FINANCIAL STATEMENTS*****PARTS INTERNATIONAL LTD.******BALANCE SHEET******As at December 31******(in thousands of dollars)***

	<u>2008</u> (projected)	<u>2007</u> (audited)
<u>Assets</u>		
Accounts receivable	\$ 36,250	\$ 37,750
Inventory	6,500	10,000
Taxes receivable	575	-
Prepaid expenses	1,880	950
	<u>45,205</u>	<u>48,700</u>
Capital assets	<u>75,000</u>	<u>78,750</u>
Total assets	<u><u>\$120,205</u></u>	<u><u>\$127,450</u></u>
<u>Liabilities</u>		
Operating line of credit	\$ 23,750	\$ 28,650
Accounts payable	8,500	7,986
Current portion, long-term debt	1,875	1,875
Taxes payable	-	14
	<u>34,125</u>	<u>38,525</u>
Long-term debt	<u>16,875</u>	<u>18,750</u>
	<u>51,000</u>	<u>57,275</u>
<u>Shareholders' equity</u>		
Share capital	1	1
Retained earnings	69,204	70,174
	<u>69,205</u>	<u>70,175</u>
Total liabilities and shareholders' equity	<u><u>\$120,205</u></u>	<u><u>\$127,450</u></u>

**EXHIBIT II (continued)****PROJECTED FINANCIAL STATEMENTS**

*PARTS INTERNATIONAL LTD.  
INCOME STATEMENT  
For the years ended December 31  
(in thousands of dollars)*

	<u>2008</u> (projected)	<u>2007</u> (audited)
Revenue	\$ 120,000	\$ 130,000
Cost of sales	113,945	122,200
Gross profit	<u>6,055</u>	<u>7,800</u>
General and administrative expenses	2,500	2,475
EBITDA	<u>3,555</u>	<u>5,325</u>
Amortization	3,750	3,750
Interest	1,350	1,500
Income before income taxes	<u>(1,545)</u>	<u>75</u>
Tax recovery (expense)	<u>575</u>	<u>(14)</u>
Net income / (loss)	<u>\$ (970)</u>	<u>\$ 61</u>

**EXHIBIT III**

*PROJECTED DIVISIONAL OPERATING STATEMENTS FOR ONTARIO AND QUEBEC*  
*For the year ended December 31, 2008*  
*(in thousands of dollars)*

	<u>Ontario</u>	<u>Quebec</u>	<u>Total</u>
Revenue	\$66,000	\$54,000	\$120,000
Variable cost of sales			
Material	36,300	28,890	65,190
Labour	19,800	15,390	35,190
Selling costs	3,300	2,700	6,000
	<u>59,400</u>	<u>46,980</u>	<u>106,380</u>
Contribution margin	<u>6,600</u>	<u>7,020</u>	<u>13,620</u>
Fixed cost of sales			
Salaries and benefits	1,200	1,250	2,450
Utilities	240	225	465
Maintenance	500	550	1,050
Insurance	1,500	1,450	2,950
Other	150	500	650
	<u>3,590</u>	<u>3,975</u>	<u>7,565</u>
Gross profit	<u>\$ 3,010</u>	<u>\$ 3,045</u>	<u>\$ 6,055</u>

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**MAPLE MEDICAL** (85 minutes)

It is now August 4, 2009. You, CA, are a junior with a public accounting firm, Beckstrom-McConkey-Plake, LLP (BMP). You have just been called into the office of Liz Beckstrom, a partner at BMP, to assist her on an upcoming engagement.

Maple Medical Inc. (MMI) is a sales agency that sells surgical supplies such as medical instruments, bandages, and sutures to hospitals throughout Ontario. MMI has licenses to sell several different lines of products and earns commissions based on sales.

Todd Morrison, President and sole shareholder of MMI, founded the company after spending several years working in the internal sales force of Thompson & Thompson (TT), a large medical supply company. Recognizing inefficiencies within the sales process, he realized that he could operate an agency more profitably than the company could operate an internal sales force. He successfully lobbied to outsource this part of the business from TT and incorporated MMI in 2000. MMI has a July 31 year-end.

Since the company's incorporation, BMP has assisted with the preparation of Todd's personal tax return and MMI's corporate tax return. MMI recently acquired the license to sell an additional product line of surgical tools throughout Ontario. Based on the expected volume growth, Todd is planning to hire Suzie Quinn, a recent university marketing degree graduate, to assist in managing MMI's sales and support functions. Todd wants to make sure that MMI's financial statements are accurate before Suzie begins, so he has approached BMP to perform a review engagement on MMI's July 31, 2009 financial statements.

Liz provided you with information from Todd about the past year at MMI (Exhibit I), background information on MMI and the medical supply industry (Exhibit II) and the proposed employment arrangement (Exhibit III).

Todd will be meeting with Liz next week. She has asked you to draft a memo that addresses Todd's concerns. She would like you to consider any relevant accounting issues that have arisen during the year, but she also told you that she has another staff member working on engagement planning issues.

**EXHIBIT I****INFORMATION ON THE PAST YEAR AT MMI**

Todd decided to acquire a van for MMI and found an appropriate model, which he can purchase for \$28,500 or lease for \$750 per month. Since Todd will continue to own his current car, he expects to use the van entirely for business purposes. He wondered if there are tax advantages to buying the van versus leasing the vehicle.

Todd noted that with the expansion of his workforce, he is unsure about the adequacy of his systems and controls. He provided details of the company's control environment to you (Exhibit IV). MMI has subscribed to an anti-virus software program that sends out regular updates. Todd noted that his current anti-virus software system has expired, but he does not want to renew it until he receives BMP's recommendations.

MMI operates from a home office located in one room on the upper level of Todd's home. In prior years, the office space was estimated to occupy 15% of the home's square footage.

To prepare for the expanded product line and personnel, MMI's office underwent renovations that were completed in July 2009. Todd noted that he has not yet received the invoice for the work, but is excited about the impact the write-off will have on next year's taxes when the bill is paid. The following is an excerpt of the agreement with RJ Contracting Ltd. showing the work done and estimated costs:

<i>Item</i>	<i>Estimated Cost</i>
Painting of the whole house interior	\$ 5,000
Installation and supply of new shelving and storage facilities in the basement	6,450
New office furniture	10,900
Total	\$22,350

Todd made more storage room in the basement for his inventory as he had nowhere to put his growing number of sample items. The basement is 5% of the square footage of the house. As a result of the renovations, the basement will be used exclusively by MMI to store inventory.

Todd also purchased a new alarm system for the basement to protect MMI's inventory. The system's cost of \$10,000 includes a five-year service contract from the supplier.

## **EXHIBIT II**

### **BACKGROUND INFORMATION ON MMI AND THE MEDICAL SUPPLY INDUSTRY**

The medical supply industry is tightly regulated and highly competitive. MMI acts as an agent for TT and other companies, negotiating contracts, prices, and buying terms. In addition, MMI provides service relating to the medical instruments contracts, such as training and support to the doctors and nurses who use the products. Todd estimates that 90% of all training and queries related to medical instruments occurs within three months of the initial product sale.

MMI does not collect any money from the hospitals. Todd negotiates contracts between his clients (e.g., TT) and the hospitals' purchasing departments. All purchasing is done directly from his clients and sales are tracked by his clients.

Each hospital normally has a centralized purchasing department, but purchases are heavily influenced by the preferences of the doctors and nurses who use the products. Since doctors and nurses are so busy during the workday, a lot of Todd's sales calls and presentations are made over lunch and dinner meetings. Todd has found that treating his customers to a nice meal is a good way to get their full attention and makes them more receptive to his products.

Similarly, Todd treats many of his larger customers to rounds of golf in the summer months. He finds that the uninterrupted time on the golf course is a great way to get feedback from the doctors and to help influence their preferences, which ultimately impacts the buying decisions made by the hospitals. However, he noted that it is not a cheap business expense. Of his \$30,000 promotion and advertising budget for fiscal 2009, Todd estimated that he spent \$7,000 on golf green fees and \$18,000 on meals.

Purchasers tend to make conservative orders throughout the year, purchasing in small volumes on an as-needed basis and keeping limited amounts of inventory on-hand. However, the purchasers always want to spend their entire budget each year. As a result, large orders are often placed at the end of the March purchasing year to use up the remaining budgeted funds.

One of MMI's customers, Toronto Eastern Hospital (TEH), placed an order for \$100,000 of supplies and \$150,000 of medical instruments on July 1, 2009. Todd was excited that he received the commission for the sale in August and would not pay tax on it for another year.

Todd typically visits the hospitals in his territory on a rotating schedule to make general sales calls and to touch base with his customers in order to answer any non-urgent questions. He aims to call on his larger accounts at least once per week, and the smaller accounts at least once per month. In addition, he is available on-call to assist whenever necessary. He typically spends two days per week dealing with unexpected issues. If a surgeon has a question about a product, or any emergency issue arises during a surgery, he needs to be available to assist the client with the technical issues related to his product.

**EXHIBIT II (continued)****BACKGROUND INFORMATION ON MMI AND THE MEDICAL SUPPLY INDUSTRY**

Products are shipped directly from MMI's clients (e.g., TT) to its customers (e.g., TEH). However, MMI maintains some inventory of its own to be used as samples during the sales process. During fiscal 2009, Todd purchased the following:

<u>Inventory Type</u>	<u>Quantity Purchased</u>
Medical Instruments	300
Bandages	260
Sutures	400

Todd likes to carry a large amount of inventory samples because of continued business growth. When a new product is released, or an existing product is changed, MMI purchases a bulk amount of the item from the client. Todd can return these samples to the client at any time and be reimbursed based on the latest invoiced price for the item. He expenses these items as he uses them and performs a physical inventory count at the end of each month. He provided the inventory listing as of July 31, 2009 (Exhibit V).

Todd noted that while product changes are unusual and the products are similar regardless of the supplier, the product price normally decreases over time as the supplier becomes more efficient in production and passes these savings on to remain competitive in the market. Todd tries to use up the oldest inventory first, but also likes to use the more expensive products during months when he knows he will have high sales in order to regulate his income for tax purposes.

Todd calculated MMI's income before income taxes to be \$175,000 for fiscal 2009. He is worried about how much tax he will have to pay on this level of income.

**EXHIBIT III****EMPLOYMENT ARRANGEMENT WITH SUZIE QUINN****Job Responsibilities**

1. Suzie will be responsible for the entire licensed territory, Ontario, to service the new surgical tool line of business.
2. Suzie will not have to purchase her own inventory, as she will have access to the sample inventory purchased and stored by MMI. She can distribute samples to customers as she wishes but will be charged for the inventory she uses.
3. Suzie will receive 7% and MMI will receive 3% of the total 10% commission paid to MMI for the sales of her product line.
4. Suzie is also required to provide a support function to the business administration (detailed below) and will be paid an hourly rate of \$25 per hour for any time spent on administrative duties.

**Administrative Support Requirements**

MMI receives a lot of mail, and Todd has found it overwhelming to keep up with the paperwork lately. Todd currently does all of MMI's bookkeeping. He would like Suzie to take on some administrative functions for the business, including some of the bookkeeping. He says that he will check over her work for accuracy, but wants to know if she can update the accounting system from her own home office or if she will need to come to his office to do the work in person.

Each month, Todd receives a commission cheque from TT along with a statement showing the sales made from his customers and MMI's 10% commission. MMI receives commission cheques and statements from his other clients on a quarterly basis. Todd would like Suzie to be responsible for opening the mail and recording the revenue in the accounting system when the cheques are received. He would also like her to deposit the cheques into MMI's bank account when received.

Bills are sent in the mail to MMI for various expenses, such as courier, telephone, hydro, etc. These are all paid by cheque. Todd finds it time consuming to keep track of all of these items, and would like Suzie to take over this function as well. Todd would like her to enter the bills into the accounting system. He also hopes that if he gives Suzie a cheque book, she can prepare the cheques in advance so that all he will need to do is sign them before she puts them in the mail. He thinks this will reduce the amount of time he spends in the office.

Since prices, product specifications and technologies are subject to change within the industry, Todd likes to keep up to date on information about the products he sells. Todd likes to keep a "quick list" with information about his top 25 selling products to ensure he is always providing his customers with accurate information.

**EXHIBIT III (continued)****EMPLOYMENT ARRANGEMENT WITH SUZIE QUINN**

MMI's largest client, TT, maintains a company intranet with detailed information about product specifications, pricing, and upcoming technological advances. This intranet is a useful resource for sales agents like Todd because the information is updated regularly, ensuring that he always has access to the most recent data on products and prices. However, he finds it time-consuming to go through the TT intranet on a regular basis to ensure his quick list is up to date. Todd would like Suzie to take responsibility for updating this list. On a monthly basis, he would like her to access the TT intranet through his computer, search for product information for the top 25 selling items, and update his list as necessary.

Todd would also like Suzie to take responsibility for the monthly inventory count. Although it will require her traveling to his home office, he thinks it will be worthwhile as this is a time-consuming process due to all of the boxes he has on hand.

**EXHIBIT IV****CONTROL ENVIRONMENT AT MMI**

MMI's accounting and bookkeeping systems are maintained on the single computer in Todd's home office. He uses an off-the-shelf accounting package to maintain his own books and records, and feels that he has learned the basics of accounting required to use the system proficiently. Todd hired Suzie based on her sales skills, and noted that she has no formal accounting training. However, he is confident he will be able to give Suzie the training she needs to get comfortable with the system.

Todd uses the cheques he receives from TT and the other clients to record sales in his accounting software and deposits all funds into MMI's bank account. Similarly, Todd pays for several of MMI's expenses using a company credit card. Each month, he reviews his credit card statements and enters the items into the accounting system based on general descriptions (e.g., promotion and advertising, gas, parking).

In addition to the accounting package, Todd maintains a database with all of his client information. This includes basic contact information for each of the hospitals he services, as well as more personalized notes that he keeps on his clients. He is able to add comments about each of his customers within the database (e.g., names and ages of their children, favorite hobbies, etc.).

Todd updates this database periodically to serve as a memory aid when dealing with his customers, and believes that it gives him an edge by helping him to personalize his service. He also likes to make notes about any special rates or deals he gives to customers.

MMI's computer is connected to the internet and the database is linked into Todd's email system's address book, which makes it easy for him to keep track of all of his contacts.

Due to the highly sensitive information maintained on the TT intranet, Todd had to sign a confidentiality agreement with TT. He accesses the intranet using a specific TT user name and password, and is contractually bound to ensure that only he has access to the TT intranet.

Since Todd's computer is in his home office he uses it for both business and personal purposes. He noted that most of the work is business, but he does occasionally download music, upload photographs, and surf the internet in his free time.

Todd performs weekly backups of his hard-drive onto CDs, which he keeps in a box in his basement.

With the addition of Suzie to MMI, Todd would like her to have access to MMI's database so that she can contact customers and make her own personalized notes about them. However, she will not be working from his home office. He is wondering if there is a way for Suzie to access the information using the internet.

**EXHIBIT V**

*MAPLE MEDICAL INC.  
INVENTORY LISTING  
As at July 31*

Item	Cost per box	2009		2008	
		Quantity	Total	Quantity	Total
<b>Medical Instruments</b>					
Medical Instruments – 2006	\$530	55	\$ 29,150	135	\$ 71,550
Medical Instruments – 2007	\$490	63	30,870	97	47,530
Medical Instruments – 2008	\$440	71	31,240	81	35,640
Medical Instruments – 2009	\$390	297	115,830	-	-
		<b>486</b>	<b>\$207,090</b>	<b>313</b>	<b>\$154,720</b>
<b>Bandages</b>					
Bandages – 2007	\$ 87	86	\$ 7,482	127	\$ 11,049
Bandages – 2008	\$100	109	10,900	206	20,600
Bandages – 2009	\$145	143	20,735	-	-
		<b>338</b>	<b>\$39,117</b>	<b>333</b>	<b>\$31,649</b>
<b>Sutures</b>					
Sutures – 2007	\$212	97	20,564	200	42,400
Sutures – 2008	\$255	211	53,805	231	58,905
Sutures – 2009	\$290	249	72,210	-	-
		<b>557</b>	<b>\$146,579</b>	<b>431</b>	<b>\$101,305</b>
<b>TOTAL INVENTORY</b>			<b>\$392,786</b>		<b>\$287,674</b>

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**LARPHY CONSTRUCTION** (80 minutes)

Larry Murphy is the owner of Larphy Construction Limited (LCL), a prominent home building company located in St. John, New Brunswick. The company had its most successful year ever, building and selling 200 homes.

Larry has identified a strategy to continue business growth by developing two additional subdivisions. Details are included in Exhibit I. LCL currently operates in six subdivisions and Larry feels that he cannot increase sales in these subdivisions in any significant way. Larry is convinced the company must secure additional lot inventory now in order to provide for future growth.

Larry is quite certain this initiative is necessary to continue LCL's growth. Larry would be happy with a 12% rate of return. However, he does have concerns about LCL's ability to finance current operations and the proposed expansion. Accordingly, Larry has approached you, CA, for business advice.

Larry feels that the company's current financial reporting is not adequate for current or future needs and wants to know what specifically can be done to improve it. He saw an accounting package demonstrated at a trade show that promised to provide all of the information he would need for up to date decision making and reduce administrative staff.

It is now March 2009. Notes from your meeting with Larry Murphy are attached as Exhibit II. Larry has also provided copies of the company's most recent December 31 year-end financial statements, which are attached as Exhibit III. Notes from a meeting you had with the company's controller are also provided as Exhibit IV. The proposed information system is detailed in Exhibit V.

**EXHIBIT I****DETAILS ON NEW SUBDIVISIONS**

Larry has negotiated tentative purchase agreements for the Arbour View and Miller Heights subdivisions. Both purchase agreements would be secured by the building lots.

The details of the proposed agreements are as follows:

**Arbour View**

Purchase Price	\$5,500,000
Closing Date	February 1, 2010
Lot Count	100 residential building lots
Minimum payment terms	\$500,000 deposit due immediately, \$10,000 per lot upon closing, plus \$10,000 per lot every six months until purchase price is paid in full
Interest rate	10% per year if payment dates are missed

**Miller Heights**

Purchase Price	\$6,000,000
Closing Date	March 1, 2010
Lot Count	200 residential building lots
Minimum payment terms	5% upon closing, plus 5% per month beginning in April 2010 until the purchase price is paid in full
Interest rate	12% per year if payment dates are missed

**EXHIBIT II****NOTES FROM MEETING WITH LARRY MURPHY**

Larry started the company twenty-five years ago doing small renovation jobs. Now, LCL currently employs about thirty people directly, and over two hundred indirectly through its sub-trade network. The company presently builds and sells homes in six residential subdivisions.

Larry estimates he will sell four houses per month in the Arbour View subdivision at an average pre-tax profit per home of \$30,000 beginning in July of 2010. His estimated construction cost is \$200,000 plus a lot cost of \$55,000 with a selling price of \$285,000. Larry estimates he will be able to sell six houses per month in the Miller Heights subdivision at an average pre-tax profit per home of \$22,500 beginning in July of 2010. His estimated construction is \$150,000 plus a lot cost of \$30,000 with a selling price of \$202,500. Larry calculated gross profit based on an allocation of the costs to purchase the lots.

Larry hopes to finance the initial investment from existing company resources. The on-going cash requirements will be financed through a combination of cash generated from the company and existing bank financing. The company's current borrowing facility provides a maximum of \$20 million as a line of credit based on 80% of the construction cost for homes under construction plus 70% of the cost of lot inventory, less any debt that is secured by lot inventory.

Larry expressed concern over the current state of the company's financial reporting. He complains that he often gets financial statements up to six months after the fact. In addition to the financial statements being late, he has no confidence that they are correct. "It seems at the end of the year, the income is adjusted either up or down so that what I thought we were earning ends up being different from what we ultimately report. I have had the same controller for ten years and I really like him. I don't want to let him go, but I'm nervous about expanding and growing the business without having complete confidence in the company's financial reporting. I never seem to know exactly what is going on, so I go with my instinct and basically manage by the seat of my pants. What I really need is advice on some key measures to help me make timely and informed decisions."

**EXHIBIT III**

**LARPHY CONSTRUCTION LIMITED**  
**BALANCE SHEET**  
*As at December 31*  
*(unaudited, in thousands of dollars)*

	<u>2008</u>	<u>2007</u>
	<u>Assets</u>	
Current assets		
Cash	\$ 1	\$ 1
Homes under construction	6,000	5,000
Lots inventory	16,875	20,000
Prepaid expenses	<u>50</u>	<u>45</u>
	22,926	25,046
Capital assets	<u>350</u>	<u>400</u>
Total assets	\$ <u>23,276</u>	\$ <u>25,446</u>
	<u>Liabilities</u>	
Current liabilities		
Bank indebtedness	\$ 11,000	\$ 12,510
Accounts payable	5,000	4,000
Current portion of long-term debt	<u>2,000</u>	<u>2,000</u>
	18,000	18,510
Long-term debt	<u>3,275</u>	<u>5,275</u>
	21,275	23,785
	<u>Shareholder's equity</u>	
Share capital	1	1
Retained earnings	<u>2,000</u>	<u>1,660</u>
	<u>2,001</u>	<u>1,661</u>
Total liabilities and shareholder's equity	\$ <u>23,276</u>	\$ <u>25,446</u>

**EXHIBIT III (continued)**

*LARPHY CONSTRUCTION LIMITED*  
*INCOME STATEMENT*  
*For the year ended December 31*  
*(unaudited in thousands of dollars)*

	<u>2008</u>	<u>2007</u>
Revenue	\$ 50,000	\$ 43,750
Cost of sales	<u>45,000</u>	<u>39,375</u>
	5,000	4,375
General and administrative expenses	3,000	2,800
Interest and bank charges	<u>1,500</u>	<u>1,250</u>
	<u>4,500</u>	<u>4,050</u>
Earnings before income taxes	500	325
Income taxes	<u>160</u>	<u>104</u>
Net income	\$ <u>340</u>	\$ <u>221</u>

**EXHIBIT III (continued)****LARPHY CONSTRUCTION LIMITED**  
**EXTRACTS FROM THE NOTES TO THE FINANCIAL STATEMENTS***(unaudited, in thousands of dollars)***Capital assets**

	<u>Cost</u>	<u>Accumulated Depreciation</u>	<u>Net Book Value</u>
Land	\$ 50	\$ -	\$ 50
Building	500	250	250
Equipment	<u>150</u>	<u>100</u>	<u>50</u>
	<u>\$ 700</u>	<u>\$ 350</u>	<u>\$ 350</u>

The company's land and building have recently been appraised for \$1.0 million.

**Homes under construction and lot inventory**

<u>Subdivision</u>	<u>Number of Homes Under Construction</u>	<u>Cost of Homes Under Construction</u>	<u>Number of Lots</u>	<u>Cost of Lots</u>
Foothills	4	\$ 2,250	225	\$ 5,700
Granite Cove	5	1,000	75	1,900
Beechtone	6	500	80	1,700
Queenstone	6	1,000	120	3,000
Forest Hills	2	500	75	1,575
Oakview Estates	<u>4</u>	<u>750</u>	<u>125</u>	<u>3,000</u>
	<u>27</u>	<u>\$ 6,000</u>	<u>700</u>	<u>\$ 16,875</u>

**Long-term debt**

Long-term debt is secured by the lot inventory.

<u>Subdivision</u>	<u>Debt</u>	<u>Current Portion</u>	<u>Long-term Portion</u>
Foothills	\$ 2,000	\$ 500	\$ 1,500
Granite Cove	500	250	250
Beechtone	750	250	500
Queenstone	1,000	500	500
Forest Hills	500	250	250
Oakview Estates	<u>525</u>	<u>250</u>	<u>275</u>
	<u>\$ 5,275</u>	<u>\$ 2,000</u>	<u>\$ 3,275</u>

**EXHIBIT IV****NOTES FROM MEETING WITH CONTROLLER**

“I am very grateful for the opportunity that Larry has given me. I enjoy working for the company and I want to continue to work here and see LCL grow. However, Larry can be difficult to work for. For example, he hates to plan. I try and plan my activities but what usually happens is he comes in, gives me a list of things he would like to know or information he would like me to gather. Half the time, the information is not used for anything that I know of. I think it is just Larry’s way of checking on me.”

“The other thing that concerns me is he seems completely unwilling to invest in administrative staffing. In the past five years, we have grown from building 100 homes per year to 200 homes per year. In that time, we have not made any increases in our accounting staff. We still operate with only one accounts payable clerk. Our payables are usually behind to the point we are constantly being threatened by subtrades that they will stop working for us and our material suppliers are constantly threatening to cut us off. I spend 25% of my time convincing the subtrades to keep working and the suppliers to keep supplying.”

“Now Larry wants to add two new subdivisions. More business means more paperwork. If we do not add some resources, I am concerned that something bad is going to happen.”

**EXHIBIT V****DESCRIPTION OF PROPOSED INFORMATION SYSTEM**

Builder3000 is an electronic information system written and supported by a local software development boutique.

The system is modular so a company can tailor the software to its particular needs by selecting only the modules it wants. Additional modules can be added at a later time and custom modules can be developed based on client specifications.

The system has a basic general ledger, accounts payable, accounts receivable and payroll modules. It also contains a construction module that:

1. Automatically uploads information from the construction module to the general ledger module.
2. Tracks land purchases and allocates land costs to various jobs.
3. Tracks individual costs to specific jobs using bar codes and GPS technology.
4. Facilitates creation of individual job budgets and a comparison of actual to budgeted costs on a real-time basis.
5. Shows open-job and completed-job budgeted and actual costs.
6. Establishes pre-set billing points such as “footings in” or “roof tight” and automatically generates customer invoices.

LCL purchases all of its materials from a limited number of suppliers. These suppliers would have to attach bar codes to all materials purchased and GPS tracking chips to all high value materials. The construction module would track where all GPS chipped material was delivered to and its current location until the module produces the final billing. At that point, all GPS tracking related to that job is turned off.

All bar coded materials delivered would be read by a bar code reader on site and automatically billed to that job. The bar code reader is solar powered with a backup battery system.

The cost of the basic system, including implementation, is \$75,000 plus \$5,000 annually for maintenance and licensing fees. The construction module costs an additional \$25,000 plus \$2,000 annually for maintenance and licensing fees. Implementation of a full system normally takes a minimum of six months.

Training would be for two staff members and consist of a two day course once the system is installed and operating. There is a support line that operates Monday to Friday from 9:00 a.m. to 5:00 p.m. Eastern Standard Time.

The general ledger module has basic job order costing capabilities limited to 999 jobs.

The developers of the Builder3000 software offer a hosting service where they would host the Builder3000 software and store all data. Data storage is scalable and access to the software and data is by high-speed internet connection.

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**INTERNATIONAL BEVERAGE WORKS** (75 minutes)

International Beverage Works Ltd. (IBW) is a producer of juices, soft drinks and energy drinks based in Vancouver, British Columbia with a December 31 year-end. IBW has sales agreements in place with national grocery chains and warehouse-style stores. IBW markets its products under brand names such as Sunflower Juices, Buzz Cola and Enerade Performance Drinks. In addition to bottling and selling products under its own brand names, IBW does contract manufacturing, whereby it receives orders from supermarket chains and produces private label brand soft drinks on behalf of the supermarket chains.

You, CA, are an associate with IBW's Special Projects Group. The group serves as IBW's internal consultants and has a mandate to improve business operations at all five production sites, the regional sales offices and the head office.

It is now February 15, 2009 and you have just completed a two week analysis at IBW's Hamilton, Ontario production facility. Hamilton is also the location of the Eastern Canada sales office and the Research and Development Centre (R&D Group). You are reviewing the company's historical sales performance (Exhibit I) and your working papers and meeting notes (Exhibit II) in order to summarize the findings and present them to the VP of the Special Projects Group. Your focus for this project was to identify any operational problems, internal control issues or items that would impact the accounting results for IBW as a whole.

Since mid-2008, the R&D Group has been working on developing a new container specially designed for IBW's energy drinks. During the Hamilton engagement, you reviewed the progress of the new container project (Exhibit III).

The Hamilton location is responsible for processing sales orders for the two factories belonging to the Eastern sales region. Over the course of the engagement, you met with the Customer Service Director to gain an understanding of the current sales order process at the Hamilton office (Exhibit IV). The CEO is contemplating moving IBW's entire sales processing to Hamilton for all of the sales regions.

**EXHIBIT I****HISTORICAL SALES PERFORMANCE****Sales by Region – 2007 (\$ in thousands of dollars)**

	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>2007</b>
<b>West</b>	1,150	940	960	980	4,030
<b>Central</b>	1,100	1,010	920	915	3,945
<b>East</b>	<u>1,180</u>	<u>1,050</u>	<u>1,090</u>	<u>1,080</u>	<u>4,400</u>
<b>Total</b>	<u>3,430</u>	<u>3,000</u>	<u>2,970</u>	<u>2,975</u>	<u>12,375</u>

**Sales by Region – 2008 (\$ in thousands of dollars)**

	<b>Q1</b>	<b>Q2</b>	<b>Q3</b>	<b>Q4</b>	<b>2008</b>
<b>West</b>	1,155	1,045	955	960	4,115
<b>Central</b>	1,105	1,008	910	905	3,928
<b>East</b>	<u>1,175</u>	<u>955</u>	<u>1,080</u>	<u>1,795</u>	<u>5,005</u>
<b>Total</b>	<u>3,435</u>	<u>3,008</u>	<u>2,945</u>	<u>3,660</u>	<u>13,048</u>

**EXHIBIT II****WORKING PAPERS FROM HAMILTON ENGAGEMENT****Meeting Notes – Sales Director, Eastern Canada Region**

Geoff Bishop, the Sales Director for Eastern Canada, joined IBW in March 2008. He has focused most of his time negotiating and managing the contract with Easton Grocers (Easton), the largest supermarket chain in Eastern Canada. The agreement with Easton runs from September 2008 to September 2011. Easton works closely with IBW's sales and marketing team in order to run successful promotional events at Easton's larger stores.

In exchange for an upfront fee of \$240,000 paid last September, Easton prominently features IBW's energy drinks and juices in the "Health and Wellness" section of its stores. Easton has committed to renovating existing stores and building 50 new outlets over the next three years that will have "Health and Wellness" sections. Geoff expects that the expanded marketing efforts and high profile placement of IBW's energy drinks and juices can potentially increase sales to Easton from \$500,000 in 2006 to over \$1.5 million by the end of the contract. IBW will continue to pay Easton (and other grocery chains) a shelf fee to include IBW's products on the grocery chain's product list.

A unique feature of the new Easton contract is related to the order taking and shipment process. To streamline stock levels throughout IBW and Easton's supply chain, Easton will provide a demand plan to IBW on a bi-weekly basis for the upcoming three months. IBW's energy drinks and juices will be shipped to Easton's distribution centre in Montreal. The products then will be shipped by Easton directly to stores. At each month-end, Easton will forward an Inventory Report to IBW, which lists the products shipped to stores, inventory at the distribution centre and inventory at individual stores. Title passes to Easton once the product reaches the store and is updated on the month-end Inventory Report. This is the first time IBW has entered into a contract of this nature.

**EXHIBIT II (continued)****WORKING PAPERS FROM HAMILTON ENGAGEMENT****Customer Profit Analysis – Easton Grocers**

The following customer profit analysis was prepared by the Eastern Canada Sales Director:

	<u>2007</u> <u>Actual</u>	<u>2008</u> <u>Actual</u>	<u>2009</u> <u>Expected</u>	<u>2010</u> <u>Expected</u>
Sales (A)	\$500,000	\$600,000	\$1,100,000	\$1,500,000
Shelf Fees	(65,000)	(65,000)	(75,000)	(75,000)
Volume Rebate	(10,000)	(10,000)	(20,000)	(20,000)
In-store Promotions	(50,000)	(50,000)	(60,000)	(60,000)
Merchandisers	<u>(40,000)</u>	<u>(48,000)</u>	<u>(50,000)</u>	<u>(50,000)</u>
Contribution (B)	<u>\$335,000</u>	<u>\$427,000</u>	<u>\$ 895,000</u>	<u>\$1,295,000</u>
Contribution % (B)/(A)	67.0%	71.2%	81.4%	86.3%

## Notes:

- 1) Shelf fees will increase to \$75,000 per year in 2009 and 2010 as stipulated by contract.
- 2) Volume rebate estimated to double as sales increase.
- 3) Merchandisers represent costs allocated to IBW for store merchandisers at Easton who are responsible for maintaining the appearance and stock levels of shelves allocated to IBW products. At the end of each year, Easton will provide a summary of merchandising costs to all its suppliers. Amounts for 2009 and 2010 have been estimated based on the 2007 and 2008 figures.
- 4) Contribution of 86.3% is expected in 2010, which will make Easton the highest ranked customer in all regions based on contribution.

**EXHIBIT II (continued)****WORKING PAPERS FROM HAMILTON ENGAGEMENT****Meeting Notes – Corporate Accountant, Eastern Canada Region**

Wayne Connelly, Corporate Accountant, Eastern Canada Region, has been with IBW for the past three years.

A stock count was conducted at year-end for all raw materials and finished goods at the Hamilton plant.

Costs associated with the container project have been capitalized. Thus far, \$740,000 of research costs has been recorded in the account. At the instruction of the Eastern Canada sales director, costs capitalized include the \$240,000 fee paid to Easton. He stated that the new container project will greatly increase sales to Easton after the product is launched.

Shelf fee expenses (paid to grocery chains) were relatively stable at \$250,000 during 2008. Shelf fees paid to Easton were \$65,000 during the year.

To support the launch of the new Easton contract, Geoff increased the credit limits for the largest customers by 50% during the last two quarters of 2008. Wayne recalls that more invoices were processed during December 2008, partly due to the increased credit limits, but also due to shipments to Easton under the new contract.

Salary expense was higher in the last quarter mainly due to the year-end bonus paid for the Eastern Sales Region. Annual sales of \$5.0 million was nearly 14% higher than 2007, and 25% higher than budget (2008 budgeted sales of \$4,000,000). Bonuses are calculated as a percentage of sales.

Shipments to Easton under the new contract terms began in November 2008 (energy drinks) and December 2008 (juices). Easton has been providing the bi-weekly demand reports and the first month-end Inventory Report was received January 31, 2009.

Volume rebates are provided to customers based on annual sales. The rebate rates are as follows:

Under \$500,000	2%
\$500,001 to \$999,999	3%
\$1,000,000 to \$1,499,999	4%
\$1,500,000 and above	5%

On average, manufacturing costs are approximately 65% of the selling price.

**EXHIBIT III****CONTAINER PROJECT MEETING NOTES**

The R&D Group has been working on a new aluminum container for energy drinks since July 2008. Unlike the current aluminum soft drink cans used by IBW, the new container will use a higher grade of aluminum, resulting in numerous benefits that have been substantiated during testing.

An early success for the project was that the new containers could reach colder temperatures faster when compared to the clear plastic bottles. Some test versions have allowed the contents to stay cool even when the product was not stored in the refrigerator. As a result, the taste of the energy drinks in the new container is more consistent and the product can be served after just a brief refrigeration period.

Thus far, the R&D Group has been working on a 200 ml version of the container (versus the traditional 500 ml and 1 L plastic bottles). Marketing believes that the smaller container size could translate into increased sales by opening up the restaurant, bar and club segment of the market. Marketing also believes that unit sales will increase at retail outlets and at fitness clubs as consumers purchase more of the smaller cans.

Marketing has conducted several focus groups to test the public's response to the new containers and branding. The specifics of the project were not revealed to the focus groups. A majority of the respondents preferred the smaller packaging.

The R&D Group has spent \$500,000 to develop prototype containers and conduct testing with existing energy drink formulas. Two limited trial runs on an existing production line have been conducted successfully. A further \$250,000 will be needed to complete testing and conduct promotional trials with test markets prior to a full product launch.

**EXHIBIT IV****MEETING NOTES WITH CUSTOMER SERVICE DIRECTOR**

A team of four customer service representatives report to Janet Tingley, the Customer Service Director for the Eastern Canada Region. Each representative is responsible for a specific group of customers within the region.

Customer orders are received via email or fax. The representative will review the order details and key-in the information into IBW's resource planning system. Once orders are in the system, the factories will schedule production to meet the demand.

Besides order entry, the bulk of the representatives' time is spent on after-sales service, such as invoicing and following up on any issues identified by customers.

Each morning, a shipment report is produced by the system, listing all orders shipped from the two factories on the previous day. The report is circulated amongst the service representatives who then generate invoices for each customer. These shipment reports are filed within the Customer Service Department.

Within the invoicing module of the system, the representative will create an invoice for each sales order number listed on the shipment report. The system will automatically assign an invoice number for each invoice generated. The system will also automatically populate the invoice with the details associated with the sales order number (i.e., customer information, product code, description, quantity ordered, and quantity shipped, unit price). The representative can change the unit price on the invoice as some customers have negotiated price lists that differ from the master price list in the system. Once all details have been verified by the representative, the invoice can be created within the system.

As all customers operate on credit, once the invoice is created, the system will process the necessary back-end entries affecting sales, finished goods, cost of good sold, and the applicable accounts receivable accounts. Invoices are printed each day and mailed to the customer.

Periodically, customers will contact the representative regarding order problems or errors on invoices. For product-related issues (i.e., damaged products, wrong items, etc), the issue is forwarded to the factory quality assurance department for follow-up and resolution. Once investigated and resolved, the department will notify the representative, who will then update the invoice details in the system. An updated invoice will be printed and sent to the customer as part of the normal invoice printing process. The representative is responsible for correcting price-related errors, and to update the system to reprint and send an updated invoice to the customer.

Customer remittances are handled by staff in the accounting department.

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**TABLE I**

**PRESENT VALUE OF \$1 RECEIVED AT THE END OF THE PERIOD**

PERIODS HENCE	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.98	0.97	0.96	0.95	0.94	0.93	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.87	0.86	0.85	0.85	0.84	0.83
2	0.96	0.94	0.92	0.91	0.89	0.87	0.86	0.84	0.83	0.81	0.80	0.78	0.77	0.76	0.74	0.73	0.72	0.71	0.69
3	0.94	0.92	0.89	0.86	0.84	0.82	0.79	0.77	0.75	0.73	0.71	0.69	0.67	0.66	0.64	0.62	0.61	0.59	0.58
4	0.92	0.89	0.85	0.82	0.79	0.76	0.74	0.71	0.68	0.66	0.64	0.61	0.59	0.57	0.55	0.53	0.52	0.50	0.48
5	0.91	0.86	0.82	0.78	0.75	0.71	0.68	0.65	0.62	0.59	0.57	0.54	0.52	0.50	0.48	0.46	0.44	0.42	0.40
6	0.89	0.84	0.79	0.75	0.70	0.67	0.63	0.60	0.56	0.53	0.51	0.48	0.46	0.43	0.41	0.39	0.37	0.35	0.33
7	0.87	0.81	0.76	0.71	0.67	0.62	0.58	0.55	0.51	0.48	0.45	0.43	0.40	0.38	0.35	0.33	0.31	0.30	0.28
8	0.85	0.79	0.73	0.68	0.63	0.58	0.54	0.50	0.47	0.43	0.40	0.38	0.35	0.33	0.31	0.28	0.27	0.25	0.23
9	0.84	0.77	0.70	0.64	0.59	0.54	0.50	0.46	0.42	0.39	0.36	0.33	0.31	0.28	0.26	0.24	0.23	0.21	0.19
10	0.82	0.74	0.68	0.61	0.56	0.51	0.46	0.42	0.39	0.35	0.32	0.29	0.27	0.25	0.23	0.21	0.19	0.18	0.16
11	0.80	0.72	0.65	0.58	0.53	0.48	0.43	0.39	0.35	0.32	0.29	0.26	0.24	0.21	0.20	0.18	0.16	0.15	0.13
12	0.79	0.70	0.62	0.56	0.50	0.44	0.40	0.36	0.32	0.29	0.26	0.23	0.21	0.19	0.17	0.15	0.14	0.12	0.11
13	0.77	0.68	0.60	0.53	0.47	0.41	0.37	0.33	0.29	0.26	0.23	0.20	0.18	0.16	0.15	0.13	0.12	0.10	0.09
14	0.76	0.66	0.58	0.51	0.44	0.39	0.34	0.30	0.26	0.23	0.20	0.18	0.16	0.14	0.13	0.11	0.10	0.09	0.08
15	0.74	0.64	0.56	0.48	0.42	0.36	0.32	0.27	0.24	0.21	0.18	0.16	0.14	0.12	0.11	0.09	0.08	0.07	0.06
16	0.73	0.62	0.53	0.46	0.39	0.34	0.29	0.25	0.22	0.19	0.16	0.14	0.12	0.11	0.09	0.08	0.07	0.06	0.05
17	0.71	0.61	0.51	0.44	0.37	0.32	0.27	0.23	0.20	0.17	0.15	0.13	0.11	0.09	0.08	0.07	0.06	0.05	0.05
18	0.70	0.59	0.49	0.42	0.35	0.30	0.25	0.21	0.18	0.15	0.13	0.11	0.09	0.08	0.07	0.06	0.05	0.04	0.04
19	0.69	0.57	0.47	0.40	0.33	0.28	0.23	0.19	0.16	0.14	0.12	0.10	0.08	0.07	0.06	0.05	0.04	0.04	0.03
20	0.67	0.55	0.46	0.38	0.31	0.26	0.21	0.18	0.15	0.12	0.10	0.09	0.07	0.06	0.05	0.04	0.04	0.03	0.03
21	0.66	0.54	0.44	0.36	0.29	0.24	0.20	0.16	0.14	0.11	0.09	0.08	0.06	0.05	0.04	0.04	0.03	0.03	0.02
22	0.65	0.52	0.42	0.34	0.28	0.23	0.18	0.15	0.12	0.10	0.08	0.07	0.06	0.05	0.04	0.03	0.03	0.02	0.02
23	0.63	0.51	0.41	0.33	0.26	0.21	0.17	0.14	0.11	0.09	0.07	0.06	0.05	0.04	0.03	0.03	0.02	0.02	0.02
24	0.62	0.49	0.39	0.31	0.25	0.20	0.16	0.13	0.10	0.08	0.07	0.05	0.04	0.03	0.03	0.02	0.02	0.02	0.01
25	0.61	0.48	0.38	0.30	0.23	0.18	0.15	0.12	0.09	0.07	0.06	0.05	0.04	0.03	0.02	0.02	0.02	0.01	0.01

**TABLE II**

**PRESENT VALUE OF AN ANNUITY OF \$1 RECEIVED AT THE END OF EACH PERIOD**

<i>No. of Periods Received</i>	2%	3%	4%	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.98	0.97	0.96	0.95	0.94	0.93	0.93	0.92	0.91	0.90	0.89	0.88	0.88	0.87	0.86	0.85	0.85	0.84	0.83
2	1.94	1.91	1.89	1.86	1.83	1.81	1.78	1.76	1.74	1.71	1.69	1.67	1.65	1.63	1.61	1.59	1.57	1.55	1.53
3	2.88	2.83	2.78	2.72	2.67	2.62	2.58	2.53	2.49	2.44	2.40	2.36	2.32	2.28	2.25	2.21	2.17	2.14	2.11
4	3.81	3.72	3.63	3.55	3.47	3.39	3.31	3.24	3.17	3.10	3.04	2.97	2.91	2.85	2.80	2.74	2.69	2.64	2.59
5	4.71	4.58	4.45	4.33	4.21	4.10	3.99	3.89	3.79	3.70	3.60	3.52	3.43	3.35	3.27	3.20	3.13	3.06	2.99
6	5.60	5.42	5.24	5.08	4.92	4.77	4.62	4.49	4.36	4.23	4.11	4.00	3.89	3.78	3.68	3.59	3.50	3.41	3.33
7	6.47	6.23	6.00	5.79	5.58	5.39	5.21	5.03	4.87	4.71	4.56	4.42	4.29	4.16	4.04	3.92	3.81	3.71	3.60
8	7.33	7.02	6.73	6.46	6.21	5.97	5.75	5.53	5.33	5.15	4.97	4.80	4.64	4.49	4.34	4.21	4.08	3.95	3.84
9	8.16	7.79	7.44	7.11	6.80	6.52	6.25	6.00	5.76	5.54	5.33	5.13	4.95	4.77	4.61	4.45	4.30	4.16	4.03
10	8.98	8.53	8.11	7.72	7.36	7.02	6.71	6.42	6.14	5.89	5.65	5.43	5.22	5.02	4.83	4.66	4.49	4.34	4.19
11	9.79	9.25	8.76	8.31	7.89	7.50	7.14	6.81	6.50	6.21	5.94	5.69	5.45	5.23	5.03	4.84	4.66	4.49	4.33
12	10.58	9.95	9.39	8.86	8.38	7.94	7.54	7.16	6.81	6.49	6.19	5.92	5.66	5.42	5.20	4.99	4.79	4.61	4.44
13	11.35	10.63	9.99	9.39	8.85	8.36	7.90	7.49	7.10	6.75	6.42	6.12	5.84	5.58	5.34	5.12	4.91	4.71	4.53
14	12.11	11.30	10.56	9.90	9.29	8.75	8.24	7.79	7.37	6.98	6.63	6.30	6.00	5.72	5.47	5.23	5.01	4.80	4.61
15	12.85	11.94	11.12	10.38	9.71	9.11	8.56	8.06	7.61	7.19	6.81	6.46	6.14	5.85	5.58	5.32	5.09	4.88	4.68
16	13.58	12.56	11.65	10.84	10.11	9.45	8.85	8.31	7.82	7.38	6.97	6.60	6.27	5.95	5.67	5.41	5.16	4.94	4.73
17	14.29	13.17	12.17	11.27	10.48	9.76	9.12	8.54	8.02	7.55	7.12	6.73	6.37	6.05	5.75	5.47	5.22	4.99	4.77
18	14.99	13.75	12.66	11.69	10.83	10.06	9.37	8.76	8.20	7.70	7.25	6.84	6.47	6.13	5.82	5.53	5.27	5.03	4.81
19	15.68	14.32	13.13	12.09	11.16	10.34	9.60	8.95	8.36	7.84	7.37	6.94	6.55	6.20	5.88	5.58	5.32	5.07	4.84
20	16.35	14.88	13.59	12.46	11.47	10.59	9.82	9.13	8.51	7.96	7.47	7.02	6.62	6.26	5.93	5.63	5.35	5.10	4.87
21	17.01	15.42	14.03	12.82	11.76	10.84	10.02	9.29	8.65	8.08	7.56	7.10	6.69	6.31	5.97	5.67	5.38	5.13	4.89
22	17.66	15.94	14.45	13.16	12.04	11.06	10.20	9.44	8.77	8.18	7.65	7.17	6.74	6.36	6.01	5.70	5.41	5.15	4.91
23	18.29	16.44	14.86	13.49	12.30	11.27	10.37	9.58	8.88	8.27	7.72	7.23	6.79	6.40	6.04	5.72	5.43	5.17	4.93
24	18.91	16.94	15.25	13.80	12.55	11.47	10.53	9.71	8.99	8.35	7.78	7.28	6.84	6.43	6.07	5.75	5.45	5.18	4.94
25	19.52	17.41	15.62	14.09	12.78	11.65	10.68	9.82	9.08	8.42	7.84	7.33	6.87	6.46	6.10	5.77	5.47	5.20	4.95

**TABLE III**

**A FORMULA FOR CALCULATING THE PRESENT VALUE OF REDUCTIONS IN TAX PAYABLE DUE TO CAPITAL COST ALLOWANCE**

$$\frac{\text{Investment Cost} \times \text{Marginal Rate of Income tax} \times \text{Rate of Capital Cost Allowance} \times \left( 1 + \frac{\text{Rate of Return}}{2} \right)}{\left( \text{Rate of Return} + \text{Rate of Capital Cost Allowance} \right) \times \left( 1 + \text{Rate of Return} \right)}$$

**MAXIMUM CAPITAL COST ALLOWANCE RATES FOR SELECTED CLASSES**

Class 1	.....4%
Class 8	.....20%
Class 10	.....30%
Class 10.1	.....30%
Class 12	.....100%
Class 13	.....Original lease period plus one renewal period (Minimum 5 years and Maximum 40 years)
Class 14	.....Length of life of property
Class 17	..... 8%
Class 39	..... 25%
Class 43	..... 30%
Class 44	..... 25%
Class 45	..... 45%

**SELECTED PRESCRIBED AUTOMOBILE AMOUNTS**

Maximum depreciable cost - Class 10.1	\$30,000 + GST
Maximum monthly deductible lease cost	\$800 + GST
Maximum monthly deductible interest cost	\$300
Operating cost benefit - employee	24¢ per kilometre of personal use
Non-taxable car allowance benefit limits	
- first 5,000 km	52¢ per kilometre
- balance	46¢ per kilometre

**TABLE IV**

**2007 INDIVIDUAL FEDERAL INCOME TAX RATES**

**Income Tax Rate Schedule - Individuals**

<u>Taxable Income</u>	<u>Tax</u>
\$37,178 or less	15.50%
\$37,178 to \$74,357	\$5,683 + 22% on next \$37,884
\$74,357 to \$120,887	\$14,017 + 26% on next \$47,415
\$120,887 or more	\$26,345 + 29% on remainder

**SELECTED NON-REFUNDABLE TAX CREDITS**

**PERMITTED TO INDIVIDUALS**

**FOR PURPOSES OF COMPUTING INCOME TAX**

The tax credits are 15.50% of the following amounts:

Basic personal amount	\$9,600
Spouse or common-law partner amount	9,600
Net income threshold for married or common-law partner amount	NIL
Child	2,038
Age 65 or over in the year	5,276
Disability amount	7,021
Disabled dependents who reach 18 in the year	4,095
Net income threshold for disabled dependents 18 and over	5,811
Basic amount for:	
Age credit and GST credit	31,524
Child tax benefit	37,885
OAS clawback	64,718
Children's fitness credit	up to 500

**CORPORATE FEDERAL INCOME TAX RATE**

The tax payable by a corporation under Part I of the Income Tax Act on its taxable income is 38% before any additions and/or any deductions.

**PRESCRIBED INTEREST RATES**

<u>Year</u>	<u>Jan. 1 - Mar. 31</u>	<u>Apr. 1 - June 30</u>	<u>July 1 - Sept. 30</u>	<u>Oct. 1 - Dec. 31</u>
2008	6	6	5	
2007	7	7	7	7
2006	5	6	6	7
2005	5	5	5	5
2004	5	5	4	5

The rate is 2 percentage points higher for late or deficient income tax payments and unremitted withholdings.

The rate is 2 percentage points lower for deemed interest on employee and shareholder loans.

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