Self Study And SSS Problems For Chapters 3

To provide practice in problem solving, these are the Self Study Problems for Chapter 3. The detailed solutions to these problems are available in both the print and online Study Guide.

For additional practice in problem solving, there are Supplementary Self Study (SSS) Problems with detailed solutions. These problems are available in this file after the Self Study problems.

Chapter 3 Self Study Problems

Self Study Problem Three - 1

(Bonus Arrangements)

Empire Inc. has an October 31 year end. On October 31, 2016, the Company accrues a bonus of $250,000, payable to Joan Betz, the president of the Company.

Required: For each of the following cases, indicate the taxation year in which the Company could deduct the bonus, as well as the taxation year in which Ms. Betz would have to include it in her taxable income.

Case A The bonus is paid on November 1, 2016.

Case B The bonus is paid on January 1, 2017.

Case C The bonus is paid on June 30, 2017.

Case D The bonus is paid on January 1, 2020.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 2

(Employee Vs. Self-Employed)

Farnham Ltd. is interested in acquiring the services of a highly qualified engineering professional. This individual has agreed to become an employee at a salary of $250,000 per year. For employees, the cost of providing benefits (pension plan and extended health care) is about 8 percent of gross wages. In addition to CPP and EI, the province levies a 2 percent payroll tax to provide for health care. The tax applies to all wages and salaries with no upper limit.

This individual's work is such that a contract could be arranged that would make him an independent contractor. However, because he likes the security and benefits associated with being an employee, the contract would have to provide income of $280,000 in order for him to find it acceptable.

Required Advise the company as to the preferable alternative.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 3

(Taxable Automobile Benefits)

Ms. Tamira Vines is a salesperson for Compudata Ltd., a Regina based software company. As her work requires her to travel extensively throughout southern and central Saskatchewan, the Company provides her with an automobile. Saskatchewan does not participate in the HST program and has a provincial sales tax which is assessed at a rate of 5 percent.

From January 1, 2016 through May 31, 2016, the Company provided her with an Acura TLX. This car was purchased by the Company on January 1, 2016 at a cost of $39,000, plus $1,950 in provincial sales tax and $1,950 in GST. During the period January 1, 2016 through May 31, 2016, the car was driven 38,800 kilometers for employment related purposes and 3,400 kilometers for personal use. The Company paid all operating costs during the period, an amount of $3,656, including applicable provincial sales tax and GST.

On June 1, 2016, following a late evening sales conference at the Shangri La Hotel in Moose Jaw, Ms. Vines was involved in an accident in which the Acura was destroyed. Ms. Vines was hospitalized and was not able to return to work until July 1, 2016. Compudata's insurance company paid $27,500 to the Company for the loss of the car.

When she returned to work on July 1, 2016, the Company provided Ms. Vines with a Ford Taurus. The Company leased this vehicle at a monthly cost of $699 per month, including applicable provincial sales tax and GST. This monthly payment also includes a $100 per month charge for insurance.

For the period July 1, 2016 through December 31, 2016, operating costs, other than insurance, totaled $3,456, including applicable provincial sales tax and GST. These were paid for by the Company. During this period, Ms. Vines drove the car 15,600 kilometers for employment related purposes and 14,600 kilometers for personal use.

Ms. Vines paid to the Company $0.10 per kilometer for the personal use of the cars owned or leased by the Company for the year.

Required: Calculate the minimum taxable car benefit that will be included in Ms. Vines' employment income for the year ending December 31, 2016.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 4

(Taxable Automobile Benefits)

During the current year, the Carstair Manufacturing Company provides automobiles for four of its senior executives, with the value of the cars being in proportion to the salaries which they receive. While each of the individuals uses their car for employment related travel, they also use them for personal matters. The portion of personal use varies considerably among the four individuals. When the car is not being used by the employee, the Company requires that it be returned to the corporate premises.

The details related to each of these cars, including the amount of personal and employment related travel recorded by the executives, are as follows:

> **Mr. Sam Stern** Mr. Stern is the president of the Company and is provided with a Mercedes which has been purchased by the Company at a cost of $78,000. The car was new last year and, during the current year, it was driven a total of 38,000 kilometers. Of this total, only 6,000 kilometers were for employment related purposes, while the remaining 32,000 were for personal travel. Operating costs totaled $.50 per kilometer and, because Mr. Stern made an extended trip outside of North America, the car was used by Mr. Stern for 8 months during the current year. During the period when he was outside North America, the Company required Mr. Stern to return the car to the Company garage.
>
> **Ms. Sarah Blue** Ms. Blue is the vice president in charge of marketing and has been provided with a Corvette. The Company leases this vehicle at a cost of $900 per month. During the current year, the car was driven a total of 60,000 kilometers, with all but 5,000 of these kilometers being for employment related purposes. The car was used by Ms. Blue throughout the current year, and total annual operating costs amount to $18,000.
>
> **Mr. John Stack** Mr. Stack is the vice president in charge of finance and he has been provided with an Acura that was purchased by the Company in the preceding year at a cost of $48,000. During the current year, Mr. Stack drove the car 42,000 kilometers for employment related purposes and 10,000 kilometers for personal travel. Operating costs for the year were $20,800, and the car was used by Mr. Stack throughout the current year. In order to reduce his taxable benefit, Mr. Stack made a payment of $7,000 to the Company for the use of this car.
>
> **Mr. Alex Decker** Mr. Decker, the vice president in charge of industrial relations, chose to drive a Lexus. This car was leased by the Company at a cost of $500 per month. The lease payment was significantly reduced by the fact that the Company made a refundable deposit of $10,000 to the leasing Company at the inception of the lease. During the current year, Mr. Decker drove the car 90,000 kilometers for employment related purposes and 8,500 kilometers for personal use. The operating costs were $0.35 per kilometer and, because of an extended illness, he was only able to use the car for the first 10 months of the year. During the period when he was ill, the Company required Mr. Decker to return the car to the Company garage.

Required: Calculate the minimum amount of the taxable benefit for the current year that will accrue to each of these executives as the result of having the cars supplied by the Company. In making these calculations, ignore GST/HST/PST considerations. From the point of view of tax planning for management compensation, provide any suggestions for the Carstair Manufacturing Company with respect to these cars.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 5

(Employer Provided Vs. Employee Owned Car)

John Rush is a key employee of Megan Ltd. (ML), a Canadian public company. He is not required to use an automobile in carrying out his employment duties.

In 2014 and 2015, ML has provided John with a car with ML paying all of the operating costs of the car. John uses the car exclusively for personal travel.

On January 2, 2016, ML has indicated to John that, as an alternative to continuing to provide the car for him, they will sell the car to him at its current fair market value of $20,000. If he chooses to purchase the car, ML will no longer pay the operating costs.

John expects that, whether he chooses to purchase the car or not, he will use the car for two more years, 2016 and 2017. If he purchases the car, the estimated sales price at the end of these two years would be $12,000. He expects to drive the car about 40,000 kilometers in each of the two years.

Assume that operating costs will be $0.20 per kilometer and the prescribed operating cost benefit will be $0.26 per kilometre throughout both years.

John's combined federal/provincial marginal tax rate is 48 percent.

Required: On the basis of undiscounted cash flows, advise John as to whether he should purchase the car assuming:

A. ML purchased the car for $35,000.
B. ML purchased the car for $70,000.

Ignore GST/HST considerations.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 6

(Loans To Employees)

Mr. Thomas Malone is employed by Technocratic Ltd. in a management position. Because of an outstanding performance in his division of the Company, he is about to receive a promotion accompanied by a large increase in compensation. He is discussing various possible ways in which his compensation might be increased without incurring the same amount of taxation as would be assessed on an increase in his salary. He has suggested that it might be advantageous for the Company to provide him with a five year interest free loan in the amount of $200,000 as part of any increase in compensation.

The funds will either be used to purchase a cottage in which case any interest on related loans will not be deductible to Mr. Malone, or used to purchase investments in which case any interest on related loans will be deductible to Mr. Malone.

Other relevant information is as follows:

- Given Mr. Malone's present salary, any additional income will be taxed at 45 percent.
- Technocratic Ltd. is able to invest funds at a before tax rate of 18 percent. It is subject to taxation at a 25 percent rate.
- Mr. Malone can acquire a similar term, $200,000 loan at an annual rate of 5 percent.
- Assume that the relevant Regulation 4301 rate for imputing interest on various tax related balances is 2 percent.

Required: Evaluate Mr. Malone's suggestion of providing him with an interest free loan in lieu of salary from the point of view of the cost to the Company. How will the deductibility of the interest affect your conclusion?

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 7

(Employee Stock Options)

During 2014, Ms. Sara Wu's employer, Imports Ltd., granted her stock options that allowed her to acquire 12,000 shares of the Company's common stock at a price of $22 per share. At this time, the shares have a fair market value of $20 per share.

On June, 1, 2015, Ms. Wu exercises all of these options. At this time, Imports Ltd. shares have a fair market value of $31 per share.

On January 31, 2016, Ms. Wu sells the 12,000 Imports Ltd. shares at a price of $28 per share.

Required For each of the following Cases, calculate the tax consequences of the transactions that took place during 2014, 2015, and 2016 on both the Net Income For Tax Purposes and the Taxable Income of Ms. Wu. Where relevant, identify these effects separately.

Case A Imports Ltd. is a public company.

Case B Imports Ltd. is a Canadian controlled private corporation.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 8

(Employee Stock Options)

During 2014, her first year as an employee of Borden Ltd., Ms. Marcia Balzac was granted options to purchase 2,500 of the Company's shares at a price of $8.00 per share.

When Ms. Balzac exercises the options, the shares are trading at $8.30 per share.

On November 1, 2016, Ms. Balzac sells all of her shares at a price of $8.55 per share.

Required: Indicate the tax effect on Ms. Balzac of the transactions that took place during 2014, 2015, and 2016 under each of the following independent Cases. Your answer should include the effect on both Net Income For Tax Purposes and Taxable Income. Where relevant, identify these effects separately.

A. Borden Ltd. is a Canadian controlled private corporation. At the time the options were granted, the Company's shares had a fair market value of $7.50 per share. The options were exercised on October 1, 2015.

B. Borden Ltd. is a Canadian public company. At the time the options were granted, the shares were trading at $7.50 per share. The options were exercised on October 1, 2015.

C. Borden Ltd. is a Canadian public company. At the time the options were granted, the shares were trading at $8.25 per share. The options were exercised on October 1, 2015.

D. Borden Ltd. is a Canadian controlled private corporation. At the time the options were granted, the Company's shares had a fair market value of $9.00 per share. The options were exercised on October 1, 2014.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 9

(Employment Income - No Commissions)

For the last three years, Sam Jurgens has been employed in Halifax as a loan supervisor for Maritime Trust Inc. Maritime Trust is a large public company and, as a consequence, Mr. Jurgens felt that he did not have the opportunity to exhibit the full range of his abilities. To correct this situation, Sam decided to accept employment in Toronto effective July 1, 2016 as the general manager of Bolten Financial Services, a Canadian controlled private corporation specializing in providing financial advice to retired executives.

In April, 2016, prior to leaving Maritime Trust, Mr. Jurgens exercised options to purchase 5,000 shares of the public company's stock at a price of $15 per share. At the time the Maritime Trust options were granted, the shares were trading at the option price of $15 per share. At the time that he exercised these options, the shares were trading at $16 per share. He is still holding these shares on December 31, 2016.

Mr. Jurgens had an annual salary at Maritime Trust of $105,000, while in his new position in Toronto, the salary is $90,000 per year. However, he has the option of acquiring 1,000 shares per year of Bolten stock at a price of $20 per share. On July 1, when he was granted the option, Bolten stock had a fair market value of $14 per share. On December 1, 2016, when the Bolten stock has a fair market value of $22 per share, Mr. Jurgens exercises these options and acquires 1,000 shares. It is his intent to hold these shares for an indefinite period of time.

Because there is extensive travel involved in the position with Bolten Financial Services, the Company has provided Mr. Jurgens with a $40,000 company car. Between July 1 and December 31, 2016, Mr. Jurgens drove this car a total of 25,000 kilometers, of which 15,000 kilometers were clearly related to his work with Bolten Financial Services. The operating costs associated with the car for this period, all of which were paid for by the Company, amount to $5,000. Because of extensive repairs resulting from a manufacturer's recall, the car had to be returned to the Company for the months of October and November, 2016.

At the time of his move to Toronto, Bolten Financial Services provided Mr. Jurgens with a $200,000 home relocation loan to purchase a personal residence near the center of town. No interest was charged on this loan.

During the year, Mr. Jurgens earned $15,000 in interest and received $45,000 in dividends from taxable Canadian corporations.

Assume that the relevant prescribed rate through all of 2016 is 2 percent.

Required: Compute Sam Jurgens' minimum net employment income for the year ending December 31, 2016.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 10

(Employment Income - Simple)

Ms. Sarah Kline is a copy editor for a major Canadian publisher. Her gross salary for the year ending December 31, 2016 is $73,500. For the 2016 taxation year, Ms. Kline's employer withheld the following amounts from her income:

Federal And Provincial Income Taxes	$26,000
Registered Pension Plan Contributions	2,400
Contributions To Group Disability Plan	175

Ms. Kline's employer made a $2,400 matching contribution to her registered pension plan and a $200 matching contribution for the group disability insurance.

Other Information:

1. During 2016, Ms. Kline is provided with an automobile that has been leased by her employer. The lease payments are $700 per month, an amount which includes a $50 monthly payment for insurance. The car is used by her for 11 months of the year and, during the month of non-use, she is required to return the vehicle to her employer's premises. During 2016, she drives it a total of 40,000 kilometers. Of this total, 37,000 kilometers were for travel required in pursuing the business of her employer, and the remainder was for personal use. The operating costs of the car totaled $5,200 for the year and were paid by her employer. She reimbursed her employer $.30 per kilometer for her personal use of the automobile.
2. During 2016, Ms. Kline was hospitalized. The disability plan which provides periodic benefits to compensate for lost employment income paid her benefits of $1,800 during this period. Ms. Kline began making contributions to this plan in 2015 and paid $225 for that year.
3. Ms. Kline paid dues to her professional association in the amount of $1,650 for the year.
4. In 2015, Ms. Kline was given options to buy 200 shares of her employer's publicly traded stock at a price of $50 per share. At the time the options were issued, the shares were trading at $50 per share. On June 6, 2016, Ms. Kline exercises the options. At the time of exercise, the shares are trading at $70 per share. She is still holding the shares on December 31, 2016.

Required: Calculate Ms. Kline's minimum net employment income for the year ending December 31, 2016. Ignore all GST and PST considerations.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 11

(Employment Income With Commissions)

Ms. Sandra Firth is a commission salesperson who has been working for Hadley Enterprises, a Canadian public corporation, for three years. During the year ending December 31, 2016, her gross salary, not including commissions or allowances, was $72,000. Her commissions for the year totalled $14,000. The following amounts were withheld by Hadley Enterprises from Ms. Firth's gross salary:

Federal and provincial income taxes	$22,000
Registered pension plan contributions (Note One)	3,200
Payments for group disability insurance (Note Two)	250
Payments for personal use of company car (Note Three)	2,400
Payments for group term life insurance (Note Four)	450
Interest on home purchase loan (Note Five)	3,000
Purchase of Canada Savings Bonds	2,060

Note One Hadley Enterprises made a matching $3,200 contribution to Ms. Firth's registered pension plan.

Note Two Ms. Firth is covered by a comprehensive disability plan which provides periodic benefits during any period of disability to compensate for lost employment income. Prior to 2016, Hadley Enterprises paid all of the $500 per year premium on this plan. However, as of 2016, Ms. Firth is required to pay one-half of this premium, the $250 amount withheld from her gross salary. During 2016, Ms. Firth was hospitalized for the month of March. For this period, the disability plan paid her $500 per week, for a total of $2,000.

Note Three Hadley Enterprises provides Ms. Firth with a Lexus that was purchased in 2015 for $58,000. During 2016, she drove the car 92,000 kilometers, 7,000 of which were personal in nature. Ms. Firth paid all of the operating costs of the car, a total of $6,200 for the year ending December 31, 2016. However, the Company provides her with an annual allowance of $7,200 to compensate her for these costs. While Ms. Firth was hospitalized during the month of March (see Note Two), her employer required that the car be returned to their premises.

Note Four Ms. Firth is covered by a group term life insurance policy that pays her beneficiary $160,000 in the event of her death. The 2016 premium on the policy is $1,350, two-thirds of which is paid by her employer.

Note Five On January 1, 2016, the Company provided Ms. Firth with a $400,000 loan to assist with the purchase of a new residence. The loan must be repaid by December 31, 2016. All of the interest that is due on the loan for 2016 is withheld from Ms. Firth's 2016 salary. This loan does not qualify as a home relocation loan. Assume that during all of 2016, the prescribed rate was 2 percent.

Other Information:

1. At Christmas, the Company gives all of its employees a mini iPad. Each mini iPad costs the Company $350, including all applicable taxes. The Company deducts this amount in full in its corporate tax return.
2. During 2015, Ms. Firth received stock options from Hadley to acquire 1,000 shares of its common stock. The option price is $5.00 per share and, at the time the options are issued, the shares are trading at $4.50 per share. In June, 2016, the shares have increased in value to $7.00 per share and Ms. Firth exercises her options to acquire 1,000 shares. She is still holding them at the end of the year and has no intention of selling them.

Self Study Problem Three - 11

3. The Company provides Ms. Firth with a membership in the Mountain Tennis Club. The cost of this membership for the year is $2,500. During the year, Ms. Firth spends $6,500 entertaining clients at this club. The Company does not reimburse her for these entertainment costs.

4. Ms. Firth had travel costs related to her employment activities as follows:

Meals	$1,300
Lodging	3,500
Total	$4,800

Her employer provides her with a travel allowance of $300 per month ($3,600 for the year) which is included on her T4 for the year.

Required: Calculate Ms. Firth's minimum net employment income for the year ending December 31, 2016. Provide reasons for omitting items that you have not included in your calculations. Ignore any GST or PST implications.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 12

(Employment Income With Commissions, Car CCA)

Mr. Jones is a salesman handling a line of computer software throughout Western Canada. During 2016, he is paid a salary of $25,800 and receives sales commissions of $47,700. He does not receive an allowance from his employer for any of his expenses. During the year, Mr. Jones made the following employment related expenditures:

Airline Tickets	$ 2,350
Office Supplies And Shipping Costs	415
Purchase Of Laptop Computer	2,075
Client Entertainment	1,750
Cost Of New Car	24,000
Operating Costs Of Car	7,200

The new car was purchased on January 5, 2016, and replaced a car which Mr. Jones had leased for several years. During 2016, Mr. Jones drove the car a total of 50,000 kilometers, of which 35,000 kilometers were for employment related purposes. The maximum capital cost allowance for the car (100 percent) is $3,600.

In addition to expenditures to earn employment income, Mr. Jones has the following additional disbursements:

Alberta Blue Cross Medical Insurance Premiums	$435
Group Life Insurance Premiums	665

Mr. Jones indicates that he regularly receives discounts on his employer's merchandise and, during the current year, he estimates that the value of these discounts was $1,300.

One of the suppliers of his employer paid $2,450 to provide Mr. Jones with a one week vacation at a northern fishing lodge.

Required: Determine Mr. Jones' net employment income for the 2016 taxation year. Ignore all GST and PST implications.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 13

(Commission Income And Work Space In Home)

Mr. Worthy is a commissioned salesman and has asked for your assistance in preparing his income tax return for the current year. He has provided you with the following information:

Employment Income		
Salary		$65,000
Commissions		$11,000
Telephone Charges		
Monthly Charge For Residential Line	$ 250	
Long Distance To Clients		
From Work Space In Home	400	
Cellular Phone Airtime To Clients	800	$ 1,450
Office Supplies And Postage At Home Office		$ 295
Cost of Tickets To Basketball Games With Clients		$ 2,550
Travel Expenses		
Car Operating Costs	$2,700	
Meals	900	
Hotels	2,850	$ 6,450
Capital Cost Allowance On Car (100%)		$ 2,450
Cost Of Maintaining Work Space In The Home (Based On A Proportion Of Space Used)		
House Utilities	$485	
House Insurance	70	
House Maintenance	255	
Capital Cost Allowance - House	750	
Capital Cost Allowance - Office Furniture	475	
Mortgage Interest	940	
Property Taxes	265	$ 3,240
Interest		
On Loan To Buy Office Furniture	$1,700	
On Loan To Buy Car	2,300	$ 4,000

Mr. Worthy's car was purchased, used, several years ago for $28,000. Twenty percent of the milage on the car is for personal matters. He is required by his employer to maintain an office in his home and is eligible to deduct work space in the home costs. Mr. Worthy has received no reimbursement from his employer for any of the amounts listed.

Required: Ignore GST and PST implications in your solutions.

A. Calculate Mr. Worthy's minimum net employment income for the current year.

B. Assume Mr. Worthy had only $4,000 in commission income in addition to his $65,000 salary. Calculate Mr. Worthy's minimum net employment income for the current year.

SOLUTION available in printed and online Study Guide.

Self Study Problem Three - 14

(Comprehensive Employment Income)

Mitch Lesner graduated from the University Of Alberta in early 2016 at the age of 28. He immediately applied for a number of jobs and accepted a position as a financial planner in the Ottawa office of Oxford Associates Ltd. Oxford Associates Ltd. is a large Canadian controlled private corporation (CCPC) employing more than two hundred people.

Prior to accepting employment with Oxford Associates, Mitch had lived in Red Deer, Alberta. Once he had signed the contract with Oxford Associates, plans were made to sell the house he owned in Red Deer. Unfortunately the home remained unsold when he moved on March 8, 2016. It was sold in late May, 2016 for $125,000. He had purchased the home several years before for $147,000.

He arrived in Ottawa on March 16 and moved into an apartment he had rented on a monthly basis until he could arrange to purchase a home. Rent payments were required from April 1.

Mitch began work on April 1, 2016 and eagerly awaited the arrival of his long-time girlfriend Janice Masters from Alberta. Shortly after her arrival in Ottawa, Mitch and Janice were married on November 29, 2016. Mitch had purchased a house just outside of Ottawa for $235,000 that they moved into on December 1, 2016.

Mitch's new job requires him to meet with existing and prospective clients outside of regular office hours and, at times, on weekends. As a result, Oxford Associates will sign form T2200 stating Mitch is required to pay for certain employment expenses without reimbursement and use a portion of his home for work. He has set aside a small room in his rented apartment which is used exclusively to meet with clientele. Mitch is also provided with an automobile to use in his work.

Mitch is compensated by salary with a bonus and stock option arrangement. The bonus is based on overall company profits. The stock option is available to all employees depending upon level of service and overall job evaluation.

Other Information:

1. Given Mitch's high grades at the University Of Alberta, Oxford Associates offered Mitch $10,000 to convince him to sign a five year employment contract. After Mitch accepted, he received the cheque in February, 2016. During the period April 1, 2016 through December 31, 2016, Mitch earned salary of $63,700. Of these earnings, $62,550 was paid during this period as Oxford Associates holds back one week's pay. The Company withheld the following amounts from his salary:

Income Taxes	$11,400
CPP	2,544
EI	955
RPP Contributions	1,200
Payment For Personal Use Of Automobile	600

2. On December 16, 2016, a bonus of $7,450 was accrued for Mitch. Mitch received $2,000 of this bonus on December 21, 2016, with the remainder being paid on February 17, 2017.

3. A few months into the new job Mitch became quite depressed. His employer suggested he take advantage of the company assistance program. He went to four appointments in October and November and felt much better. Oxford Associates paid $700 for Mitch's counselling services.

4. Oxford Associates provides group medical coverage to all of its employees. The premiums paid by Oxford Associates on Mitch's behalf cost $410.

5. Oxford Associates contributed $1,200 on Mitch's behalf to the Company's RPP.

6. Mitch is a Certified Financial Planner and paid $785 in professional dues in 2016. Oxford Associates' policy is to reimburse 80 percent of such annual professional dues. Oxford Associates reimbursed him $628 in November 2016.

7. When Mitch was married in November he received non-cash wedding gifts valued at $850. Half of the amount was contributed by his employer and the balance from other employees.

8. Oxford Associates discovered years ago that many existing clients frequent certain recreational and sporting clubs. To encourage contacts with potential clients, employees have their choice among five such clubs. Since Mitch enjoys squash, he chose a free membership at a local squash club. The annual membership fee is $915.

9. Oxford Associates reimbursed Mitch for 80 percent of the $22,000 ($147,000 - $125,000) loss that he experienced on the sale of his Red Deer home.

10. Mitch had $35,000 for a down-payment on his new Ottawa home. Since he had no previous work experience, the banks were reluctant to provide him a mortgage at favourable terms. His employer stepped in and agreed to an interest-free housing loan of $200,000 beginning on December 1, 2016. Mitch agreed to reduce his salary slightly with respect to this benefit. The loan requires annual payments of $7,500 due at the end of November beginning in 2017. The loan is required to be paid if Mitch dies, sells the home or terminates his employment. Assume that the prescribed interest rates for such benefits are 2 percent in each of the first two quarters of 2016 and 1 percent in the third and fourth quarters.

11. Oxford instituted a stock option plan for its employees in 2015. The plan eligibility requires six months of service. Employees are permitted to acquire a limited number of option shares at 20 percent below their fair market value on either May 1 or November 1. The company hires valuators to determine the fair market value at each of those dates. Mitch acquires 200 shares November 1, 2016 for $12,800. Low on cash and wanting to buy Janice a nice wedding ring, he is forced to sell 80 of the shares. He sells them on December 16, 2016 for $8,960.

12. Oxford Associates has an arrangement with a local dealership to lease a minimum number of new automobiles each year at favourable rates. Mitch receives his leased automobile May 1, 2016. It has 162 kilometers on it when it is received. The odometer reads 19,414 kilometers on December 31, 2016. Mitch estimates that he drove 5,198 kilometers for personal purposes, including drives to and from home to the office. Oxford Associates pays monthly lease payments (including HST) of $430. The cost of gas, oil, insurance, repairs and maintenance and other charges total $2,175 for 2016. Oxford Associates requires each employee provided with an automobile to pay $75 each month for the use of the automobile which is withheld directly from their pay.

13. Mitch prepared a separate room in his apartment to be used exclusively for a home office. He used the office space between June 1 and November 30, 2016. A home office was not ready in his newly purchased home until February, 2017. The apartment office space is exactly 100 square feet. The total apartment space is 1,176 square feet. Home office related costs are as follows:

Monthly Rent	$ 960
Monthly Phone Line Charge (April to November)	41
Employment Related Long Distance Calls (June to November)	74
Total Electricity Charge (March 16 to November 30)	870
Property Insurance (March 16 to November 30)	175
Paint For Apartment	253
Office Furniture	1,344
Computer Purchase	1,739
Stationery And Office Supplies Purchased	129

14. Mitch received an allowance of $250 per month for six months to cover the costs of maintaining an office in his home.

Required: Determine Mitch's net employment income for the year 2016. Provide explanations for all amounts including reasons for omitting items not included in your calculations.

SOLUTION available in printed and online Study Guide.

Chapter 3 Supplementary Self Study (SSS) Problems

SSS Problem Three - 1

(Taxable Automobile Benefits)

Three employees of the Cancar Company were given the use of company cars on January 1 of the current year. The three cars are identical. Each car was driven 16,000 kilometers during the year and the operating costs were $2,400 for each car during the year, all of which were paid by the company. When the car is not being used by the employee, the Company requires that it be returned to its premises.

Required: Ignore all GST/PST/HST implications. For each of the following cars, calculate the minimum taxable benefit to the employees for the current year ending December 31.

Car A is purchased for $30,000. It is used by Aaron Abbott for the whole year. He drives it for personal purposes for a total of 9,000 kilometers.

Car B is leased for $635 per month. It is used by Babs Bentley for 11 months of the year. She drives it for personal purposes for a total of 6,000 kilometers and pays Cancar Company $500 for the use of the car.

Car C is purchased for $30,000. It is used by Carole Cantin for 10 months of the year. She drives it for personal purposes for a total of 7,000 kilometers.

SSS Problem Three - 2

(Loans To Employees)

Eileen Lee is an extremely successful computer salesperson living and working in Hearst, Ontario, who is unhappy with her current employer. She is discussing a compensation package with her future employer, HER Ltd., a very profitable Canadian controlled private corporation.

As Ms. Lee's current and anticipated investment income place her in the 45 percent income tax bracket, she is very interested in finding ways in which she can be compensated without incurring the same amount of taxation as would be assessed on an equivalent amount of salary.

Ms. Lee is contemplating a major cash outlay. She plans to completely renovate a commercial property that she owns. She had been planning to obtain a loan of $100,000 at a 5 percent rate in order to finance the renovations. She has suggested that it might be advantageous for the Company to provide her with an interest free loan of $100,000 as part of her compensation. Because she will be using the loan for income producing purposes, any interest on the loan will be deductible to Ms. Lee.

HER Ltd. is able to invest funds at a before tax rate of 20 percent. It is subject to taxation at a 28 percent rate. Assume that the relevant prescribed rate is 2 percent.

Required: Evaluate, from the point of view of the cost to the Company, Ms. Lee's suggestion of providing her with an interest free loan in lieu of sufficient salary to carry a commercial loan at the rate of 5 percent. Assume that the cost of the renovations will be fully deductible in the year in which they are made.

SSS Problem Three - 3

(Employee Stock Options)

Ms. Marian Bytech is an employee of Merlin Industries Ltd. During 2014, Ms. Bytech was granted options to acquire 200,000 of her employer's shares at a price of $15 per share.

On August 1, 2015, all of the options are exercised. On this date, the Merlin Industries shares have a fair market value of $22 per share.

On November 1, 2016, Ms. Bytech sells all of her Merlin Industries shares at $28 per share.

Required: Indicate the tax effect on Ms. Bytech with respect to the granting of the options, their exercise, and the sale of the shares under each of the following independent assumptions. Your answer should include the effect on both Net Income For Tax Purposes and Taxable Income. Where relevant, identify these effects separately.

A. Merlin Industries Ltd. is a Canadian controlled private corporation. At the time the options were granted, the Company's shares had a fair market value of $14 per share.

B. Merlin Industries Ltd. is a Canadian controlled private corporation. At the time the options were granted, the Company's shares had a fair market value of $18 per share.

C. Merlin Industries Ltd. is a Canadian public company. At the time the options were granted, the shares were trading at $15 per share.

D. Merlin Industries Ltd. is a Canadian public company. At the time the options were granted, the shares were trading at $18 per share.

SSS Problem Three - 4

(Employment Income)

Mrs. Vera Smiles is a sales representative for a Canadian controlled private corporation that manufactures office furniture. Her gross salary for the year ending December 31, 2016 is $53,000 and, in addition, she earned commissions of $34,500. For the 2016 taxation year, Mrs. Smiles' employer withheld the following amounts from her income:

Federal And Provincial Income Taxes	$22,400
Registered Pension Plan Contributions	3,200
Contributions To Group Disability Plan	212
EI Premiums	955
CPP Contributions	2,544

Mrs. Smiles' employer made a $3,200 matching contribution to her registered pension plan and a $236 matching contribution to her group disability insurance.

Other Information:

1. During 2016, Mrs. Smiles is provided with an automobile that has been leased by her employer. The lease payments are $1,220 per month, an amount which includes a $127 per month payment for insurance. The car is used by her for ten months of the year and, during the period of non-use, she is required to return the car to her employer's premises. During 2016, she drives it a total of 67,000 kilometers. Of this total, 63,000 kilometers were for travel required in pursuing the business of her employer, and the remainder was for personal use. She reimbursed her employer $1,400 for her personal use of the automobile.

2. During 2016, Mrs. Smiles was hospitalized for a month. The disability plan which provides periodic benefits to compensate for lost employment income paid her benefits of $2,650 during this period. Mrs. Smiles began making contributions to this plan in 2015 and paid $260 for that year.

3. On July 1, 2016, Mrs. Smiles received a $50,000 loan from her employer. The loan requires annual interest payments at a rate of 1 percent and Mrs. Smiles pays the interest for 2016 on January 18, 2017. Assume that at the time the loan was granted and for the remainder of the year, the prescribed rate was 2 percent. The loan is still outstanding at the end of the year.

4. In 2013, Mrs. Smiles was given options to buy 200 shares of her employer's stock at a price of $32 per share. At the time the options were issued, the shares had a fair market value of $30 per share. On June 1, 2016, Mrs. Smiles exercises the options. At the time of exercise, the shares had a fair market value of $45 per share. She does not plan to sell the shares for at least two years.

5. During the year, Mrs. Smiles traveled extensively on business. She had travel costs of $3,365 in air fares, $4,880 in travel lodging, and $2,450 in meals while on the road. She also spent $2,720 to entertain clients. Her employer reimbursed her fully for these costs on presentation of the receipts.

Required: Calculate Mrs. Smiles' minimum net employment income for the year ending December 31, 2016. Provide reasons for omitting items that you have not included in your calculations. Ignore all GST and PST considerations.

Chapter 3 Supplementary Self Study (SSS) Solutions

SSS Solution Three - 1

With respect to Cars B and C, employment related usage was more than 50 percent of total usage and, as a consequence, there is an available reduction in the standby charge, as well as an alternative calculation of the operating cost benefit. For Car A, the employment related use is less than 50 percent and, as a consequence, there is no alternative calculation of either the standby charge or the operating cost benefit.

Car A

Standby Charge [(2%)($30,000)(12)]	$7,200
Operating Cost Benefit [(9,000)($0.26)]	2,340
Total Taxable Benefit	$9,540

Car B

Standby Charge [(2/3)(11)($635)(6,000/18,337*)]	$1,524
Operating Cost Benefit - Lesser Of:	
• [(6,000)($0.26)] = $1,560	
• [(1/2)($1,524)] = $762	762
Payment For Personal Use	(500)
Total Taxable Benefit	$1,786

*[(11)(1,667)]

Car C

Standby Charge [(2%)($30,000)(10)(7,000/16,670*)]	$2,519
Operating Cost Benefit - Lesser Of:	
• [(7,000)($0.26)] = $1,820	
• [(1/2)($2,519)] = $1,260	1,260
Total Taxable Benefit	$3,779

*[(10)(1,667)]

SSS Solution Three - 2

Approach

The appropriate comparison in evaluating the interest free loan arrangement would be to determine the cost to the Company of providing the loan, and then to compare this amount with the cost of providing an equivalent benefit in the form of straight salary. The following analysis calculates the Company's lowest cost route to providing Ms. Lee with the financing required, assuming she is not a shareholder.

Cost Of Providing For Interest Payments On Commercial Loan

Ms. Lee can borrow on a loan at a rate of interest of 5 percent. This means that the annual interest payments on $100,000 would amount to $5,000.

Because the interest on the loan can be deducted, there would be no tax consequences associated with receiving this amount of additional salary. Given this, a $5,000 increase in salary will be sufficient to carry the loan.

The cost of the additional salary to the company would be calculated as follows:

Salary Increase	$5,000
Reduction In Corporate Taxes (At 28 Percent)	(1,400)
Net Cost To Company - Additional Salary	$3,600

Cost Of Providing Interest Free Loan

Ms. Lee would be assessed a taxable benefit on the loan of $2,000 [(2%)($100,000)] for the first year. However, under ITA 80.5, this would be deemed interest paid. As she is using the funds provided to produce rental income, the full amount would be deductible, resulting in no net change in taxes.

Given this, the analysis of this alternative only requires looking at the cost of the loan to the company:

Lost Earnings On Funds Loaned (At 20 Percent)	20,000
Corporate Taxes On Imputed Earnings (At 28 Percent)	(5,600)
Net Cost To Company - Loan	$14,400

Conclusion

On the basis of the preceding analysis, it can be concluded that the Company should provide an additional $5,000 in salary rather than providing Ms. Lee with an interest free loan of $100,000. This alternative results in a net cost to the Company which is $10,800 ($14,400 - $3,600) lower. The major factor that pushed the outcome in this direction is the very high rate of return that HER expects on invested funds.

SSS Solution Three - 3

Case A

The required information under the assumption that Merlin Industries Ltd. is a Canadian controlled private corporation is as follows:

- Year Of Granting - No tax effect.
- Year Of Exercise - No tax effect.
- Year Of Sale - - As the option price was greater than the fair market value of the shares at the time the options were issued, the ITA 110(1)(d) deduction can be taken. The results for this year would be as follows:

Fair Market Value At Exercise [(200,000)($22)]	$4,400,000
Cost of Shares [(200,000)($15)]	(3,000,000)
Employment Income	$1,400,000
Taxable Capital Gain [(200,000)($28 - $22)(1/2)]	600,000
Increase In **Net Income For Tax Purposes**	$2,000,000
Deduction Under ITA 110(1)(d) [(1/2)($1,400,000)]	(700,000)
Increase In **Taxable Income**	$1,300,000

Case B

As the option price at the time of the grant is less than the fair market value of the shares on that date, no deduction is available under ITA 110(1)(d). Further, as Ms. Bytech has not held the shares for two years, no deduction is available under ITA 110(1)(d.1). Given this, the required information under the assumption that Merlin Industries Ltd. is a Canadian controlled private corporation is as follows:

- Year Of Granting - No tax effect.
- Year Of Exercise - No tax effect.
- Year Of Sale - The tax effects would be as follows:

Fair Market Value At Exercise [(200,000)($22)]	$4,400,000
Cost of Shares [(200,000)($15)]	(3,000,000)
Employment Income	$1,400,000
Taxable Capital Gain [(200,000)($28 - $22)(1/2)]	600,000
Increase In **Net Income For Tax Purposes**	$2,000,000
Deduction Under ITA 110(1)(d)	N/A
Deduction Under ITA 110(1)(d.1)	N/A
Increase In **Taxable Income**	$2,000,000

Case C

The required information under the assumption that Merlin Industries Ltd. is a Canadian public company is as follows:

- Year Of Granting - No tax effect.
- Year Of Exercise - As the option price was greater than the fair market value of the shares at the time the options were issued, the ITA 110(1)(d) deduction can be taken. The results for this year would be as follows:

Fair Market Value At Exercise [(200,000)($22)]	$4,400,000
Cost of Shares [(200,000)($15)]	(3,000,000)
Employment Income = Increase In **Net Income For Tax Purposes**	$1,400,000
Deduction Under ITA 110(1)(d) [($1,400,000)(1/2)]	(700,000)
Increase **In Taxable Income**	$ 700,000

- Year Of Sale - The taxable capital gain would be both the increase in **Net Income For Tax Purposes** and the increase in **Taxable Income** for the year. The taxable capital gain would be calculated as follows:

Proceeds Of Disposition [(200,000)($28)]	$5,600,000
Adjusted Cost Base [(200,000)($22)]	(2,800,000)
Capital Gain	$1,200,000
Inclusion Rate	1/2
Taxable Capital Gain	$ 600,000

Case D

As the option price at the time of the grant is less than the fair market value of the shares on that date, no deduction is available under ITA 110(1)(d). Further, as Merlin Industries Ltd. is a public company, no deduction could have been available under ITA 110(1)(d.1). Given this, the required information is as follows:

- Year Of Granting - No tax effect.
- Year Of Exercise - The tax effects would be as follows:

Fair Market Value At Exercise [(200,000)($22)]	$4,400,000
Cost of Shares [(200,000)($15)]	(3,000,000)
Employment Income = Increase In **Net Income For Tax Purposes**	$1,400,000
Deduction Under ITA 110(1)(d)	N/A
Increase In **Taxable Income**	$1,400,000

- Year Of Sale - The taxable capital gain would be both the increase in **Net Income For Tax Purposes** and the increase in **Taxable Income** for the year. The taxable capital gain would be calculated as follows:

Proceeds Of Disposition [(200,000)($28)]	$5,600,000
Adjusted Cost Base [(200,000)($22)]	(2,800,000)
Capital Gain	$1,200,000
Inclusion Rate	1/2
Taxable Capital Gain	$ 600,000

SSS Solution Three - 4

Mrs. Smiles' net employment income for the year would be calculated as follows:

Gross Salary	$53,000
Commissions	34,500
Registered Pension Plan Contributions	(3,200)
Contributions To Group Disability Plan (Note One)	Nil
Disability Insurance Benefit (Note One)	2,178
Automobile Benefit (Note Two)	1,222
Loan Benefit (Note Three)	250
Stock Option Benefit (Note Four)	Nil
Reimbursed Travel Costs (Note Five)	Nil
Net Employment Income	$87,950

Note One The contributions to the group disability plan are not deductible, but can be applied against the $2,650 received under the plan during the year. Since the employer's contributions to this plan are not a taxable benefit, the $2,650 in benefits received must be included in employment income. However, this benefit can be reduced by the $472 ($260 + $212) in total contributions that she has made in 2015 and 2016.

Note Two Based on the fact that Mrs. Smiles' employment related usage is more than 50 percent, the automobile benefit is calculated as follows:

Standby Charge [(2/3)(10)($1,220 - $127)(4,000/16,670*)]	$1,748
Operating Cost Benefit - Lesser Of:	
• [(4,000)($0.26)] = $1,040	
• [(1/2)($1,748)] = $874	874
Total Before Payments	$2,622
Payments For Personal Use	(1,400)
Taxable Benefit	$1,222

*[(10)(1,667)]

Note Three The benefit on the low interest loan would be calculated as follows:

$$[(\$50,000)(2\% - 1\%)(2/4)] = \underline{\underline{\$250}}$$

While most students will use the quarterly calculation, the use of actual days would result in the following acceptable alternative:

$$[(\$50,000)(2\% - 1\%)(184 \div 365)] = \underline{\underline{\$252}}$$

Note Four As a Canadian controlled private corporation is involved and she is still holding the shares, Mrs. Smiles does not recognize an employment income inclusion in 2016.

Note Five Since all of her travel and entertainment costs were reimbursed based on actual receipts, there is no effect on her income. Her employer will have to apply the 50 percent limit on meals and entertainment to the reimbursed costs.