
University of Ontario Institute of Technology

Faculty of Business & IT
Finance Area
Personal Finance: BUSI 3430-001/

Individual Assignment II—out of **90 points**
Due date: Thursday March 25, 2021 (before **10:00 p.m.**)

Administrative instructions

- Please do not write your student number anywhere on the submitted assignment.
- Number all pages consecutively *except* the title page.
- Title page: The title page should contain the assignment number, full name, and your e-mail address.
- All assignments must be typed. Hand written assignments will not be accepted under any circumstances.
- Academic integrity must be upheld.
- Text format:
 - Line Spacing: Single space.
 - Paper: Letter size (8.5 inch width and 11 inch height).
 - Font: Times New Roman (12 pts)
 - Margins: 1 inch left and right; 1-inch top and bottom.
 - Page numbering: Bottom center

Assignment Submission

- Late submission will not be accepted.
- You are required to submit your assignment as an attached **PDF file** via Canvas. The name of your file, **must be** in the following format: **LASTNAME_FIRSTNAME_ASSIGN_2.PDF**

I. Chapter 5.

Problem 1. [9 pts, 3 each]

- A. What rate of interest did Mr. Ota receive over a period of 180 days if he invested \$8,200 and received interest in the amount of \$250.0? (Show your calculations)
- B. Mr. Jack puts \$150 into a chequing account with a balance of \$600. He then withdrew funds using the ABM machine 15 times that month at a cost of \$1.50 per withdrawal and wrote 25 cheques at a cost of \$2.50 each. The account also has a monthly charge of 14.95 dollars. What are the total bank charges for the month?
- C. How *many days* would it take for Mr. Tuba's investment of \$6,700 to earn \$335 in interest if he is able to earn a rate of 3.0%? (Show your calculations)

Problem 2. [4 pts]

Yada deposits \$1,500 in a three year GIC with five percent interest compounded weekly. How much interest would he earn by maturity? (Show your calculations)

Problem 3. [4 pts]

Issa is deciding between two banks for his chequing account. Human Bank requires a minimum deposit of \$1000, charges a monthly fee of ten dollars, plus \$1.50 per cheque. Eureka Bank also requires a minimum deposit of \$1000, charges no monthly fee, but charges \$1.85 per cheque. How many cheques would Issa need to write each month to make Human Bank *less expensive* to use than Eureka Bank? (Show your calculations)

Problem 4. [6 pts]

Yadav has \$2,500 that he wishes to invest for the next two years. One-year GICs are currently paying eight percent while two-year GICs are paying 12 percent compounded annually. Economists are predicting *that interest rates will rise by the end of the year*. What is *the minimum* interest rate Yadav would need in year two, to make the one-year GIC better than the two-year GIC? (Show your calculations)

II. Chapter 6.

Problem 5. [6 pts]

Mr. Jacob is considering a home equity loan, but he needs to know the real cost of borrowing in the following case. A home equity loan is advertised at three percent compounded quarterly, however, there is a legal fee of \$850 and appraisal fee of \$650 to set up the house as collateral. If Mr. Jacob needs to borrow \$35,800 for one year, at which time will be able to repay the *full amount*, what is *the effective* rate of borrowing the \$35,800 for the year? (Show your calculations step-by-step)

Problem 6. [4 pts]

Mr. Burke purchased his condominium in Oshawa for \$550,000 and now the appraised value is \$345,000. His outstanding mortgage is \$258,000. What is the maximum home equity line of credit (HELOC) Burke would qualify for? (Show your calculations)

Problem 7. [6 pts]

Bohem has credit card balances of \$800 for the first 14 days, \$650 for 12 days, and \$600 for the last 4 days. Assume an annual interest rate of 18 percent, 30-day billing cycle and 20-day grace period. How much is his interest charge using the average daily balance method, if the credit card gets paid off five days after the statement due date? How much is his interest charge using the previous balance method, if the credit card gets paid off five days after the statement due date?

Problem 8. [4 pts]

A credit card charges 18 percent annual interest and Mr. Howard has \$750 due on the statement date. He is only able to make the minimum payment of \$22.50. If the billing cycle is 30 days and the grace period is 20 days, and he pays the full balance at *the next due date*, how much interest would he owe? (Show your calculations)

III. Chapter 7.

Problem 9. [3 pts]

Which mortgage would result in higher total payments?

Mortgage A: \$985 a month for 25 years, or

Mortgage B: \$1,000 a month for 20 years, or

Mortgage C: \$780 a month for 5 years, and \$1,056 for 25 years.

Problem 10. [4 pts]

Giovanni's family is attempting to qualify for total mortgage financing of \$3486, heating costs of \$168, and they have a car loan payment of \$846. What *minimum* gross monthly income will the family need to qualify for *both* GDS ratio of 32 percent and TDS ratio of 40 percent? (Show your calculations)

Problem 11. [6 pts, 3 each]

A. Behar rents his apartment for \$2,500 per month, utilities not included. When he moved in, he paid a \$3,000 security deposit using money from his self-directed TFSA account that was achieving an annual rate of 6% per year. His tenant's insurance costs him \$425 per year. What are Behar's total annual costs of renting? (Show your calculations)

B. The bank has determined that based on TSD ratio of 40% and other factors, the maximum monthly mortgage payment that Sam qualifies to make is \$3,500. The ten-year fixed rate of interest is 5%

compounded semi-annually and the mortgage is to be amortized over 25 years. What is the maximum value of the mortgage that Sam may obtain from the bank? (Show your calculations)

Problem 12. [3 pts]

Raphael has found a fixed rate mortgage for \$650,000 at six percent interest amortized over 30 years. How much would his monthly payment be if he wanted to amortize the mortgage over 15 years instead of 30 years? (Show your calculations under both amortization periods)

Problem 13. [6 pts]

Recently, Abella moved from Toulouse (France) to Winnipeg (Canada), and he is interested in buying a house worth \$485,000 and has a down payment of \$36,000. CMHC charges the following rates on the loan to value ratio: Up to and including 80 percent, 2.40 percent; up to 85 percent, 2.80 percent; up to 90 percent, 3.10 percent; up to 95 percent 4.00 percent. What will be the CMHC mortgage insurance premium? What will be the approximate total amount of the mortgage if the CMHC fee (insurance premium) is included in it? If a lender were willing to offer the total amount to Abella at 4.5% fixed rate amortized over 25 years, how much would his monthly payment be? You have to assume that insurance premium is included in the total amount of mortgage. (Show your calculations)

Problem 14. [5 pts, 2½each]

- A. Maxime's household income is \$3,963. Mortgage payments including taxes, principal, and interest are \$1,189. In addition, there are condominium fees of \$126 and heating costs of \$56 monthly and a car lease of \$241. What is his gross debt service ratio?
- B. A house for sale in Pickering is listed at \$710,000 and Mr. Ota Benga manages to win the competitive bid of his dream house with an offer of \$885,000. However, the appraisal indicates the value at \$695,000. What will be the conventional mortgage loan amount approved by the bank?

IV. Chapters 8/9.

Problem 15. [3 pts]

You have cash value coverage for your personal property on your homeowner's policy. Your camera cost \$2,500 eight years ago had a life expectancy of 12 years. The camera was stolen, and a new one will cost \$1,500. How much will the insurance company pay? (Show your calculations)

Problem 16. [4 pts, 2 each]

- A. Your home insurance policy provides cash value coverage on contents. If your home is over 25 years old and a small fire causes \$5,000 damage to it, what amount of the claim would the insurance company pay? (Show your calculations)
- B. John Takshi has no dependents, an annual income of \$75,000, and debt of \$100,000. How much insurance should he buy using the income method and a factor of 10? (Show your calculations)

Problem 17. [6 pts]

Mr. M. Aniol currently pays \$1,000 per month for car insurance. When the time arrives to renew his policy, his insurance agent informs him that he could save an additional 25% in premium costs if he had a saliva-testing device (for testing drivers' saliva for cannabis) installed in his car today. If the cost of the device is \$2,500.0 with taxes, what would his net savings be for the year, assuming an annual interest rate of 3.0% after tax? (Show your calculations and assume annual compounding)—Use timeline to illustrate your answer if you wish.

Problem 18. [3 pts]

Skander's insurance policy carries a \$300 deductible for collision and \$500 deductible for comprehensive. If he causes an accident, which results in the following repairs and losses to his car and possessions, what will be the reimbursement from the insurance company under his collision and comprehensive coverage?

- Replacement of trailer hitch \$500
- Replacement of rear bumper \$700
- Replacement of computer (in trunk) \$2,450
- Replacement of rear windshield \$400

Problem 19. [4 pts]

You are not at fault in a car accident that causes you total damages for injuries and lost employment in the amount of \$525,000. If you have under insured motorist coverage and the other driver who is at fault has coverage for \$450,000, what will you be able to claim? (from both the other driver's insurance company and your insurance company).

Make sure to use **snipping tool** & replicate the following table and place it at the end of your assign. copy.

	MAXIMUM TOTAL MARKS	MARKS AWARDED
Problem 1	9	
Problem 2	4	
Problem 3	4	
Problem 4	6	
Problem 5	6	
Problem 6	4	
Problem 7	6	
Problem 8	4	
Problem 9	3	
Problem 10	4	
Problem 11	6	
Problem 12	3	
Problem 13	6	
Problem 14	5	
Problem 15	3	
Problem 16	4	
Problem 17	6	
Problem 18	3	
Problem 19	4	
TOTAL	90	<u> </u> / 90 = <u> </u> %