Chapter 9 Practice Test

For questions 1 to 5, choose the correct answer.

- 1. An investment is made at a fixed annual interest rate for 3 years. Which compounding period will yield the greatest return?
 - A annual
 - B semi-annual
 - \mathbf{C} monthly
 - **D** daily
- **2.** A car travels 65 km on 9.88 L of fuel. Which rate represents its fuel efficiency?
 - A 65 L/100 km
 - **B** 6.58 L/100 km
 - C 15.2 L/100 km
 - **D** 9.88 L/100 km
- **3.** Which is an example of a fixed cost for a vehicle?
 - A insurance premium
 - **B** lease payment
 - C license fee
 - **D** all of the above
- **4.** A credit card is useful financial tool for a responsible user when
 - A \$20 over the minimum payment is paid every month
 - **B** the full balance is paid when due
 - C cash advances are used to help with monthly payments
 - **D** the minimum payment is paid at the end of the grace period
- 5. Which investment could be considered high risk?
 - A a GIC from a bank
 - **B** a stock in a new mining company
 - C a daily interest savings account
 - **D** a stock in an oil company

For questions 6 to 10, answer true (T) or false (F).

- **6.** A lease is a good alternative to purchasing a vehicle if you cannot afford high monthly payments.
- **7.** Privately sold used cars are subject to GST only.
- **8.** A fuel efficiency of 12.7 L/100 km is the same as a fuel efficiency of 8 km/L.
- **9.** Credit card interest is calculated the same way on cash advances and on purchases.
- **10.** The capacity of the gas tank in a vehicle is the only factor that affects how far the vehicle can travel on a full tank of gas.
- 11. Sanjay wants to retire at age 56. At age 14, he started depositing \$150 each month into an account that pays 8.2% per year, compounded monthly.
 - a) Use a TVM Solver. Determine the amount Sanjay will have in the account when he retires.
 - **b)** How much interest will accumulate in this time?
- **12.** Helen leased a mini-van for 4 years. She made a down payment of \$3200 and pays \$425 each month.
 - a) How much will Helen spend over the term of the lease?
 - **b)** Determine her average cost per month over the term of the lease.

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- 13. Monique won \$48 000 in the lottery. She divided this amount evenly among three mutual funds, each with a management fee of 1.5%. After one year, one fund had a rate of return of 11.4%, the second had a rate of return of 0.8%, and the third had a rate of return of 4.2%. In each fund, interest is compounded annually.
 - a) Determine the total value of the three investments at the end of one year.
 - **b)** How much interest did Monique earn in the year?
 - c) Calculate the overall rate of return as a percent of her initial investment.
- 14. The gas tank of a new hybrid car has a 45 L capacity. The fuel efficiency rating of the car is 2.7 L/100 km.
 - a) How far can the car travel on one tank of gas?
 - **b)** How much gas is needed for a 750 km trip?
 - **c)** Use current fuel prices. Determine the cost of fuel for this trip.

- 15. According to his April credit card statement, Philip has a balance of \$4562. The payment is due on April 8th. The minimum payment is the greater of \$40 or 3.0% of the balance. Philip makes the minimum payment on April 20th. He leaves the remainder of the balance unpaid until the next statement on May 3rd, when he pays the balance in full. Philip did not make any new purchases in April or May. The annual interest rate is 19.8%, compounded daily.
 - a) How much was the minimum payment Philip made on April 20th?
 - **b)** How much interest was he charged up to April 20th?
 - c) What was the balance that remained unpaid until his May statement?
 - **d)** How much interest was charged on the unpaid balance?
 - e) What payment did he make on May 3rd to pay off the balance?