

Write your name on the cover of the test booklet and nowhere else. Enclose this sheet with the booklet. Failure to follow these directions will cost you 1 point. The test has 100 points (to be scaled up to 160 points) and is scheduled to take 50 minutes. Therefore, expect to spend 1 minute for every 2 points. For example, a 12-point question should take 6 minutes. I cannot give extra time because some students have a class after your class.

1) (12 points) Answer EITHER Part A OR Part B.

A) What is meant by *saving*? Explain how it helps the economy to grow.

B) One of my bank accounts pays 1% interest. At that rate, how long would it take to double? Show all work. The stock market typically averages 6% return over the long term. At that rate, how long would it take to double? Show all work.

2) (12 points) Answer EITHER Part A OR Part B.

A) Explain why the income method of calculating the GDP should give the same result as the expenditure method of calculating GDP. Make sure you briefly state how each method works.

B) How do we compare GDP across countries? In other words, what two calculations do we need to do to compare the Canadian GDP of C\$ 2.2 trillion to the American GDP of US\$ 21.3 trillion? State how you do those calculations.

[https://www.international.gc.ca/economist-economiste/statistics-statistiques/data-indicators-indicateurs/Annual\\_Ec\\_Indicators.aspx?lang=eng](https://www.international.gc.ca/economist-economiste/statistics-statistiques/data-indicators-indicateurs/Annual_Ec_Indicators.aspx?lang=eng) <https://www.bea.gov/news/2019/gross-domestic-product-2nd-quarter-2019-third-estimate-corporate-profits-2nd-quarter-2019>

3) (14 points) For EITHER *limiting protectionism* OR *creative destruction*, explain what that means and how it will cause GDP to grow faster.

4) (18 points) Answer EITHER Part A OR Part B.

A) Draw the 45° diagram, a.k.a. the Keynesian Cross diagram. Illustrate the effects of the MPS increasing. Explain why the curve(s) moved as drawn. What happens to the equilibrium level of GDP?

B) Draw the 45° diagram, a.k.a. the Keynesian Cross diagram. Illustrate the effects of the interest rate increasing. Explain why the curve(s) moved as drawn. What happens to the equilibrium level of GDP?

5) (18 points) Answer EITHER Part A OR Part B.

A) Suppose the marginal propensity to consume was .8. How much is the size of the government spending multiplier? Show all work. If the government wanted to increase GDP by \$1000, then how much would they have to spend? Show your calculation and explain what you did. Why isn't the answer \$1000? In other words, how can the GDP increase by more than what the government spent?

B) Suppose a person's consumption is given by  $C = \$4000 + .9(Y-T)$  and their income is \$50,000. What are that person's MPC, MPS, APC, and APS. Show all work. If there is no work, then briefly explain how you reached that conclusion.

6) (26 points) Answer EITHER Part A OR Part B.

A) Use the following events to calculate C, I, G, and X. Briefly state why you used each number as you used it. If you did not use a number, explain why you did not use it. Assume all people mentioned are American unless specified otherwise. You buy a \$7 meal at Wendy's. I bought a \$150 shirt made in Honduras which cost the American store \$100. You buy a \$5000 used car from a dealer who had bought it for \$3000. Bethany College spent \$100,000 to repair the roof of Richardson Hall. The government spends \$10,000 to repair the roads. Your rich uncle buys \$8000 worth of Ford stock and pays \$10 in commissions. A Canadian pays \$20,000 of tuition at Bethany College. I pay you \$50 to rake my lawn.

B) Use the following data to calculate GDP, NDP, NI, PI, and DPI. Write every equation you used. If you need data which is not given, assume it is zero. Consumers buy \$500 worth of goods. Firms build \$300 worth of new buildings. The government spent \$400 on salaries. We imported \$200 worth of goods and exported \$150 worth of goods. The buildings and machines lost \$50 worth of value from wear and tear. \$50 of sales tax was paid. There was \$250 worth of Social Security tax paid. The government paid out \$270 worth of Social Security. There were \$10 of retained earnings. People paid \$360 in income tax.