Part A - Multiple Choice (50 points)

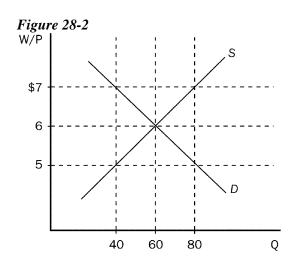
Identify the letter of the choice that best completes the statement or answers the question. Answer all questions on the scan sheet provided.

- 1. According to the classical dichotomy, which of the following increases when the money supply increases?
 - a. the real interest rate
 - b. real GDP
 - c. the real wage
 - d. None of the above increases.
- 2. People who buy stock in a corporation such as General Electric become
 - a. creditors of General Electric, but the benefits of holding the stock do not depend on General Electric's profits.
 - b. part owners of General Electric, but the benefits of holding the stock do not depend on General Electric's profits.
 - c. creditors of General Electric, so the benefits of holding the stock depend on General Electric's profits.
 - d. part owners of General Electric, so the benefits of holding the stock depend on General Electric's profits.
- 3. Peter talked to several stockbrokers and made the following conclusions. Which, if any, of his conclusions are *incorrect*?
 - a. Some people have made a lot of money in the stock market by using insider information, but these cases are not contrary to the efficient markets hypothesis.
 - b. It is relatively easy to reduce idiosyncratic risk by increasing the number of companies one holds stock in.
 - c. Stock prices, even if not exactly a random walk, are very close to it.
 - d. None of Peter's conclusions are incorrect.
- 4. Some people who are employed or who are not making serious effort to find employment will report themselves as unemployed. Some people who want to find work will be counted as out of the labour force.
 - a. Both the first and the second fact tend to make the reported unemployment rate higher than the actual unemployment rate.
 - b. Both the first and the second fact tend to make the reported unemployment rate lower than the actual unemployment rate.
 - c. The first fact tends to make the reported unemployment rate lower than the actual unemployment rate. The second fact tends to make the reported unemployment rate higher than the actual rate.
 - d. The first fact tends to make the reported unemployment rate higher than the actual unemployment rate. The second fact tends to make the reported unemployment rate lower than the actual rate.

- 5. When a union bargains successfully with employers, in that industry
 - a. the quantity of labour supplied increases and the quantity of labour demanded decreases.
 - b. the quantity of labour supplied increases the quantity of labour demanded decreases.
 - c. both the quantity of labour supplied and the quantity of labour demanded increase.
 - d. both the quantity of labour supplied and the quantity of labour demanded decrease.
- 6. If the reserve ratio is 5 percent and a bank receives a new deposit of \$200, it
 - a. will initially see reserves increase by \$190.
 - b. must increase required reserves by \$190.
 - c. will be able to make new loans up to a maximum of \$190.
 - d. None of the above is true.
- 7. If the public decides to hold more currency and fewer deposits in banks, bank reserves
 - a. increase but the money supply does not change.
 - b. increase and the money supply eventually increases.
 - c. decrease but the money supply does not change.
 - d. decrease and the money supply eventually decreases.
- 8. Which of the following equations represents national saving in a closed economy?
 - a. Y I G NX
 - b. G + C Y
 - c. Y-C-G
 - d. Y-I-C
- 9. Which of the following lists contains, in this order, natural resources, human capital, and physical capital?
 - a. For a restaurant: the produce used to make salad, the things the Chef learned at Cooking School, the freezers where the steaks are kept.
 - b. For a furniture company: wood, the company cafeteria, saws.
 - c. For a railroad: fuel, railroad engines, railroad tracks.
 - d. None of the above are correct.
- 10. When opening a restaurant you may need to buy ovens, freezers, tables, and cash registers. Economists call these expenditures
 - a. investment in human capital.
 - b. business consumption expenditures.
 - c. capital investment.
 - d. None of the above are correct.

- 11. The Fisher effect says that
 - a. real variables are heavily influenced by the monetary system.
 - b. the nominal interest rate adjusts one for one with the inflation rate.
 - c. the growth rate of the money supply determines the inflation rate.
 - d. All of the above are correct.

Use the graph below to answer the following questions.



- 12. **Refer to Figure 28-2**. If the minimum wage rose from \$6 to \$7, unemployment would
 - a. fall by 40.
 - b. fall by 20.
 - c. rise by 40.
 - d. rise by 20.
- 13. **Refer to Figure 28-2**. If the minimum wage is \$5, the number of people unemployed is
 - a. 0 and if the minimum wage is \$6 it is 0.
 - b. 20 and if the minimum wage is \$6 it is 20.
 - c. 40 and if the minimum wage is \$6 it is 0.
 - d. 40 and if the minimum wage is \$6 it is 20.
- 14. Velocity is computed as
 - a. $(P \times Y)/M$.
 - b. $(Y \times M)/P$.
 - c. $(P \times M)/Y$.
 - d. $(Y \times M)/V$.

- 15. The length of time until a bond matures is called the
 - a. maturity.
 - b. duration.
 - c. term.
 - d. intermediation.
- 16. Which is the most accurate statement about the relationship between inflation and interest rates?
 - a. The interest rate is determined by the rate of inflation.
 - b. In order to fully understand interest rates, we need to know how to correct for the effects of inflation.
 - c. There is no relationship between inflation and interest rates.
 - d. In order to fully understand inflation, we need to know how to correct for the effects of interest rates.
- 17. Ingrid takes a university teaching job as an assistant professor in 1974 at a salary of \$10,000. By 2003, she has been promoted to full professor, with a salary of \$50,000. If the price index in 1974 is 50, and the price index in 2003 is 180, what is Ingrid's 2003 salary in 1974 dollars?
 - a. \$18,000
 - b. \$13.889
 - c. \$36,000
 - d. \$26,000
- 18. On a bank's T-account,
 - a. deposits are assets, reserves are liabilities.
 - b. both deposits and reserves are assets.
 - c. reserves are assets, deposits are liabilities.
 - d. both deposits and reserves are liabilities.
- 19. Credit cards are
 - a. part of the M1 money supply.
 - b. a unit of account.
 - c. a method of deferring payment.
 - d. used as a method of payment.
- 20. Which of the following is a correct way to measure productivity?
 - a. divide output by the number of hours worked
 - b. compute output growth
 - c. divide the number of hours worked by output
 - d. divide the change in output by the change in number of hours worked

- 21. Technological knowledge refers to
 - a. human capital.
 - b. resources expended transmitting society's understanding to the labour force.
 - c. available information on how to produce things.
 - d. All of the above are technological knowledge.
- 22. According to the quantity equation, if P = 12, Y = 6, M = 8, then V =
 - a. 9.
 - b. 4.
 - c. 16.
 - d. None of the above is correct.
- 23. The President of a developing country proposes that his country needs to help domestic firms by imposing trade restrictions.
 - a. These are inward-oriented policies and most economists believe they would have adverse effects on growth.
 - b. These are inward-oriented policies and most economists believe they would have beneficial effects on growth.
 - c. These are outward-oriented policies and most economists believe they would have beneficial effects on growth.
 - d. These are outward-oriented policies and most economists believe they would have adverse effects on growth.
- 24. Inflation can be measured by the
 - a. change in the price of a specific commodity.
 - b. change in the consumer price index.
 - c. percentage change in the consumer price index.
 - d. percentage change in the price of a specific commodity.
- 25. On the basis of theory and empirical evidence economists have concluded several things concerning growth. Which of the following is NOT one of these conclusions?
 - a. Countries with few natural resources still have opportunities for economic growth.
 - b. Well-established property rights that are enforced by fair and efficient courts are important to economic growth.
 - c. Growth is generally inhibited rather than promoted by policies like protective tariffs.
 - d. A relatively simple way to increase growth rates permanently is to increase a country's saving rate.

- 26. If there is shortage of loanable funds, then
 - a. the supply for loanable funds shifts left and the demand shifts right.
 - b. neither curve shifts, but the quantity of loanable funds supplied decreases and the quantity demanded increases as the interest rate falls to equilibrium.
 - c. neither curve shifts, but the quantity of loanable funds supplied increases and the quantity demanded decreases as the interest rate rises to equilibrium.
 - d. the supply for loanable funds shifts right and the demand shifts left.
- 27. The natural rate of unemployment is the
 - a. difference between the long-run and short-run unemployment rates.
 - b. rate associated with the highest possible level of GDP.
 - c. amount of unemployment that the economy normally experiences.
 - d. unemployment rate that would prevail with zero inflation.
- 28. If the bank rate is lowered, banks choose to borrow
 - a. more from Bank of Canada so reserves decrease.
 - b. less from Bank of Canada so reserves decrease.
 - c. less from Bank of Canada so reserves increase.
 - d. more from Bank of Canada so reserves increase.
- 29. Matt loses his job and decides to sit around at home for a few months. Ceteris paribus, the unemployment rate
 - a. decreases, and the labour-force participation rate decreases.
 - b. increases, and the labour-force participation rate is unaffected.
 - c. increases, and the labour-force participation rate decreases.
 - d. decreases, and the labour-force participation rate increases.
- 30. Suppose that in a closed economy GDP is equal to 10,000, taxes are equal to 2,500 Consumption equals 6,500 and Government expenditures equal 2,000. What are private saving, public saving, and national saving?
 - a. 1000, 500, 1500
 - b. 500, 1500, 1000
 - c. 1500, 1000, 500
 - d. None of the above are correct.
- 31. Bank of Canada does all except which of the following?
 - a. act as a lender of last resort
 - b. convert currency into gold
 - c. conduct monetary policy
 - d. does all of the above.

- 32. Suppose that the price of a bond is equal to the sum of the present value of its payments. Suppose further that the bond pays \$50 today and \$1,050 one year from today. What is the price of this bond if the interest rate is 5 percent?
 - a. \$1,100.00
 - b. \$945.35
 - c. \$1,050.00
 - d. \$1,047.62
- 33. In a 100-percent-reserve banking system,
 - a. Bank of Canada can increase the money supply with open market sales.
 - b. banks hold as many reserves as they hold deposits.
 - c. banks can create money by lending out reserves.
 - d. banks can create money by issuing currency.
- 34. If the reserve ratio is 15 percent, an additional \$1,000 of reserves will increase the money supply, to the nearest dollar, by
 - a. \$1275.
 - b. \$5667.
 - c. \$1176.
 - d. \$6667.
- 35. When the money market is drawn with the value of money on the vertical axis, if the value of money is below the equilibrium level,
 - a. money demand will shift left.
 - b. the value of money will rise.
 - c. the price level will rise.
 - d. money demand will shift right.
- 36. Paper money
 - a. is valuable only because of the legal tender requirement.
 - b. is used in a barter economy.
 - c. has a high intrinsic value.
 - d. is valuable because it is generally accepted in trade.
- 37. Suppose that there are diminishing returns to capital. Suppose also that two countries are the same except one has less capital and so less real GDP per person than the other. Finally, suppose that the saving rate in both countries increases from 5 percent to 6 percent. Over the next ten years we would expect that
 - a. the country with less capital will grow faster.
 - b. the country with more capital will grow faster.
 - c. both countries will grow at the same rate.
 - d. the growth rate will not change in either country.

- 38. The money supply in Freedonia is \$100 billion. Nominal GDP is \$800 billion and real GDP is \$200 billion. What are the price level and velocity in Freedonia?
 - a. Velocity is 8 and the price level is 4.
 - b. Velocity is 2 and the price level is 1.
 - c. Velocity is 4 and the price level is 8.
 - d. There is insufficient information to answer the question.
- 39. The evidence gained from studying hyperinflation indicates that
 - a. inflation rates parallel money supply growth rates.
 - b. nominal interest rates are independent of the money supply.
 - c. the rate of inflation is not closely related to the rate at which the money supply changes.
 - d. None of the above is correct.
- 40. Pat was given two choices when the interest rate was 6 percent. In each case she was supposed to choose the option with the highest present value. In option 1 Pat chose \$200 today over \$215 a year from today. In option 2 Pat chose \$400 today over \$420 a year from today. Which of the following is correct?
 - a. Pat made the right choice in the second case only.
 - b. Pat made the right choice in the first case only.
 - c. Pat made the right choice in both cases.
 - d. Pat made the wrong choice in both cases.
- 41. A country repealed its investment tax credit. The effects of this are represented by shifting the
 - a. demand for and the supply of loanable funds to the right.
 - b. demand for and the supply of loanable funds to the left.
 - c. supply of loanable funds to the right and the demand for loanable funds to the left.
 - d. None of the above are correct.
- 42. We would predict that the more generous unemployment compensation a country has,
 - a. the shorter the duration of each spell of unemployment, and the higher the unemployment
 - b. the longer the duration of each spell of unemployment, and the lower the unemployment rate.
 - c. the shorter the duration of each spell of unemployment, and the lower the unemployment
 - d. the longer the duration of each spell of unemployment, and the higher the unemployment rate.

- 43. If this year the CPI is 125 and last year it was 120, then we know that
 - a. the price level has increased.
 - b. the inflation rate has increased.
 - c. all goods have become more expensive.
 - d. All of the above are correct.
- 44. Suppose that the CPI is currently 400 and was 100 in 1969. Then according to the CPI, \$100 today purchases the same amount of goods and services as
 - a. \$25 in 1969.
 - b. \$60 in 1969.
 - c. \$40 in 1969.
 - d. None of the above are correct.
- 45. If the price of Canadian-made power tools increases, the consumer price index
 - a. will be unaffected, and the GDP deflator will increase.
 - b. will increase, and the GDP deflator will be unaffected.
 - c. and the GDP deflator will both be unaffected.
 - d. and the GDP deflator will both increase.
- 46. The substitution bias in the consumer price index refers to the
 - a. substitution of new prices for old prices in the basket of goods from one year to the next.
 - b. fact that consumers substitute toward goods that have become relatively less expensive.
 - c. substitution of new goods for old goods in the purchases of consumers.
 - d. substitution of quality for quantity in consumer purchases over time.
- 47. Arnold puts money into an account. One year later he checks and sees that he has 5 percent more dollars and that his money will buy 6 percent more goods.
 - a. The nominal interest rate was 5 percent and the inflation rate was -1 percent.
 - b. The nominal interest rate was 6 percent and the inflation rate was 5 percent.
 - c. The nominal interest rate was 11 percent and the inflation rate was 5 percent.
 - d. None of the above is correct.
- 48. Arnie is the owner of a firm that produces bottled water in Alberta. There are many such firms in the area. Arnie decides that if he pays his workers a wage higher than the going market wage, his profits will increase. Which of the following is a likely explanation for his decision?
 - a. The higher the wage, the more he can charge for his water.
 - b. The higher the wage, the less often his workers will choose to leave his firm.
 - c. The higher the wage, the lower will be the cost of obtaining needed supplies.
 - d. All of the above are likely explanations for Arnie's decision.

- 49. Suppose that the government were to replace the income tax with a consumption tax. This would make the interest rate
 - a. and investment increase.
 - b. decrease and investment increase.
 - c. and investment decrease.
 - d. increase and investment decrease.
- 50. If the tax revenue of the federal government exceeds spending, then the government
 - a. runs a budget surplus.
 - b. will increase taxes.
 - c. runs a national debt.
 - d. runs a budget deficit.

Part B - Short Answer (15 points)

Answer the short answer questions in the space provided.

1. Draw a diagram showing the market for loanable funds. Show what happens when the government starts taxing firms' investment spending. Describe the impact of this change on investment, national saving, the interest rate, private saving, and public saving (Assume that total government tax revenue is unchanged). (5 points)

2. a. Draw a simple T-account for the Bank of Bridget (BOB), which has \$4000 of deposits and a reserve ratio of 5%. (3 points)

b. Suppose a customer deposits \$100 into her checking account at BOB. Use a T-account to show the immediate impact on BOB's deposits, reserves, and loans. (2 points)

c. Use a new T-account to show the bank's position after their reserves have been brought back into line (meaning that reserves are again 5% of deposits). (1 points)

3. The CPI in Ontario is three times higher in 2008 than it was in 1988. For each of the following, determine whether the price of the good has risen or fallen over time (measure prices in 2008 dollars). (4 points)

Product	1988 Price	2008 Price
Pocket calculator	\$3.00	\$5.50
Big Mac	\$0.90	\$2.10