

SAMPLE FINAL EXAMINATION

PART I: MATERIAL SINCE THE 2ND MIDTERM

[75 POINTS TOTAL]

A. Short Answer

Answer both questions. Be sure to explain your answers and to draw diagrams where they are appropriate.

1. What is the multiplier effect and where does it come from? **[15 points]**
2. If the economy goes into a recession, why doesn't it stay there indefinitely? **[15 points]**

B. Problem

Answer all parts of the question. Be sure to explain your answers and to draw diagrams where they are appropriate. Your explanation and analysis determine your grade.

3. The U.S. government recently cut taxes and increased government purchases (and both changes are likely to be permanent). (**Note:** In parts (a) and (b) of this question, assume for simplicity that there is no international trade or asset flows. Also, it is reasonable to assume that the economy begins at full employment.)
 - a. How will these developments affect output in the short run? **[15 points]**
 - b. How will these developments affect the real interest rate and investment in the long run? **[15 points]**
 - c. What will these developments do to the exchange rate and net exports in the long run? (**Note:** For this part, you obviously need to expand the analysis to include international trade and asset flows.) **[15 points]**

PART II: SHORT ANSWER

[45 POINTS TOTAL]

Answer all questions. Be sure to explain your answers and to draw diagrams where they are appropriate.

4. If the demand curve for the good a monopolist produces shifts out, will the monopolist change the quantity that it produces? **[15 points]**
5. If researchers come up with better, more productive techniques for producing biologic drugs, what is likely to happen to the wages and employment of workers in this industry? **[15 points]**
6. Describe using the rational spending rule how a consumer will respond to a change in the desirability of one of the goods that they buy. **[15 points]**

PART III: PROBLEMS

[105 POINTS TOTAL]

Answer all parts of each question. Be sure to explain your answers and to draw diagrams where they are appropriate.

7. This question asks you to think about the microeconomic and the macroeconomic effects of a tariff.
 - a. Washing machines are a good the United States both imports and produces domestically. Suppose the United States puts a tariff on imports of washing machines. What, if anything, is likely to happen to American production of washing machines, American imports of washing machines, and the employment of workers in the American washing machine industry? **[15 points]**
 - b. Suppose the United States puts a tariff on all of our imports. What, if anything, is likely to happen to American net exports, aggregate output, and total employment in the short run? **[15 points]**
8. Consider a good such as gasoline that has a negative externality associated with it.
 - a. Show using welfare analysis that the amount of gasoline produced and consumed by a free market is not socially optimal. **[15 points]**
 - b. Explain how a per-unit tax or subsidy could be used to achieve the socially optimal level of production and consumption of gasoline. **[15 points]**
 - c. Would a price ceiling set such that it resulted in the socially optimal quantity of gasoline be an equally good way to deal with the negative externality? **[15 points]**
9. The market for lawn-care services in the Bay Area is highly competitive. Suppose that concerns about water shortages and sustainability lead many homeowners to install native plants that require little maintenance in place of conventional grass yards.
 - a. What will this do to the market price of lawn-care services, and the output and profits of a typical lawn-care firm in the short run? **[15 points]**
 - b. What would you expect to happen to the price of lawn-care services in the long run? **[15 points]**

PART IV: MULTIPLE CHOICE**[75 POINTS TOTAL]**

Circle the **best** answer to each question. Each question is worth 3 points.

- 10.** If the Federal Reserve buys bonds with currency, in the short run:
- the nominal interest rate will fall, but the real interest rate will not change.
 - the real interest rate will fall, but the nominal interest rate will not change.
 - both the nominal and the real interest rate will fall.
 - both the nominal and the real interest rate will rise.
- 11.** Higher inflation in the United States than abroad will cause the price of the U.S. dollar in terms of foreign currency to:
- rise.
 - fall.
 - remain unchanged.
 - it is impossible to tell.
- 12.** If Fiona has a lower opportunity cost of producing salmon than Hamish does, then:
- Fiona has an absolute advantage in salmon production.
 - Fiona has a comparative advantage in salmon production.
 - if both Fiona and Hamish work in the salmon industry, Fiona's marginal product will be greater than Hamish's.
 - (a) and (b).
 - (a) and (c).
 - (b) and (c).
 - (a), (b), and (c).
- 13.** The main reason the demand curve for dollars in the foreign exchange market slopes down is that when the price of the dollar in terms of foreign currency is lower:
- American goods and services look more attractive, which makes Americans want to hold more dollars to buy domestic goods and services.
 - American goods and services look more attractive, which makes foreigners want to trade more of their currency for dollars to buy American goods and services.
 - foreign assets look more attractive, which makes Americans want to trade more dollars for foreign currency to buy foreign assets.
 - foreigners expect the dollar to regain its value, and so they want to trade more of their currency for dollars to buy American assets.
 - (a) and (c).
 - (b) and (d).
- 14.** A decision by the Federal Reserve to set a lower real interest rate at a given level of inflation corresponds to:
- a movement up along its reaction function.
 - a movement down along its reaction function.
 - an upward shift of its reaction function.
 - a downward shift of its reaction function.
- 15.** Consider a household allocating its income between two goods, oatcakes and haggis. If we measure oatcakes on the vertical axis and haggis on the horizontal axis, a rise in the price of haggis will cause the household's budget constraint:
- to shift out parallel to the original budget constraint.
 - to shift in parallel to the original budget constraint.
 - to pivot outward, so the vertical intercept is unchanged but the horizontal intercept is greater.
 - to pivot outward, so the horizontal intercept is unchanged but the vertical intercept is greater.
 - to pivot inward, so the vertical intercept is unchanged but the horizontal intercept is smaller.
 - to pivot inward, so the horizontal intercept is unchanged but the vertical intercept is smaller.
- 16.** Our basic framework for analyzing real output per person in the long run is:
- $\frac{Y^*}{POP} = f\left(\frac{K^*}{POP}, \frac{T}{POP}\right) \cdot \frac{N^*}{POP}$
 - $\frac{Y^*}{POP} = f\left(\frac{K^*}{N^*}, T\right) \cdot \frac{N^*}{POP}$
 - $\frac{Y^*}{N^*} = f\left(\frac{K^*}{POP}, \frac{T}{POP}\right) \cdot \frac{K^*}{N^*}$
 - $\frac{Y^*}{N^*} = f\left(\frac{K^*}{POP}, T\right) \cdot \frac{K^*}{N^*}$

17. In the presence of strong unions that prevent the prevailing economy-wide real wage from falling to its equilibrium level, a rise in the negotiated wage will:
- lower normal employment.
 - increase normal unemployment.
 - lower the economy's normal output per person.
 - (a) and (c).
 - (a), (b), and (c).
18. If output is above its normal or potential level for an extended period, after a while:
- prices gradually rise.
 - inflation gradually rises.
 - prices are steady at a high level.
 - inflation is steady at a high level.
19. The large variation in real income per person across countries is due mainly to:
- countries being in recessions and booms at different times.
 - differences in the normal fraction of the population that is employed.
 - (a) and (b).
 - none of the above.
20. If a country is consuming at a point on its consumption possibilities curve (CPC) that is not on its production possibilities curve (PPC), this indicates that:
- the country is running a trade deficit.
 - the country is running a trade surplus.
 - the country is being made worse off by trade.
 - the country is benefiting from trade.
 - (a) and (c).
 - (b) and (d).
21. If lemons and limes are substitutes, a blight in lemon orchards will cause:
- the quantity of limes produced to fall and their price to rise.
 - the quantity of limes produced to rise and their price to fall.
 - both the quantity of limes produced and their price to fall.
 - both the quantity of limes produced and their price to rise.
22. A greater price elasticity of demand for a good that is bought and sold in a competitive market with no externalities:
- raises the deadweight loss caused by a per-unit tax on the good.
 - reduces the deadweight loss caused by a per-unit tax on the good.
 - has no effect on the deadweight loss caused by a per-unit tax on the good.
23. If all workers earn their marginal revenue products:
- the distribution of income will be fairly equal.
 - the distribution of income across workers will be fairly equal, but the distribution of income between workers and the owners of capital may be very unequal.
 - there is nothing the government can do to change the distribution of income.
 - (a) and (c).
 - (b) and (c).
 - none of the above.
24. The reason that the profit maximization condition for investment involves the present value of the stream of expected future marginal revenue products of capital, rather than just the current marginal revenue product of capital, is that:
- firms usually finance their purchases of new capital goods by taking out long-term loans.
 - the U.S. tax system allows firms to claim deductions against their investment purchases over many years.
 - capital goods are long-lived, and so contribute to revenues over many years after they are purchased.
 - most firms rent rather than buy capital.
25. In response to an increase in planned investment, consumption in the short run will:
- rise.
 - fall.
 - remain unchanged.
 - it is impossible to tell.
26. The 45-degree line in the Keynesian cross diagram shows:
- how planned aggregate expenditure varies with total output.
 - the level of potential output to which planned aggregate expenditure returns in the long run.
 - all of the points where total output and planned aggregate expenditure are equal.
 - none of the above.

27. A per-unit subsidy paid to the producers of some good will:
- decrease the price consumers pay for the good.
 - increase the amount sellers receive for each unit of the good they sell.
 - decrease the quantity of the good bought and sold.
 - (a) and (b).
 - (a), (b), and (c).
 - (b) and (c).
 - none of the above.
28. A fall in the real interest rate will cause net exports to:
- fall.
 - rise.
 - remain unchanged.
 - it is impossible to tell.
29. If a country with few high-skilled workers reduces its trade barriers with trading partners with many high-skilled workers:
- the wage of low-skilled workers in the country will rise relative to the wage of high-skilled workers in the country.
 - the wage of low-skilled workers in the country will fall relative to the wage of high-skilled workers in the country.
 - both the wage of low-skilled workers in the country and the wage of high-skilled workers in the country will rise.
 - both the wage of low-skilled workers in the country and the wage of high-skilled workers in the country will fall.
30. All of the following are likely causes of the high natural rate of unemployment (that is, the high normal unemployment rate) in Europe **except**:
- strong unions.
 - high minimum wages.
 - tight monetary policy.
 - high payroll taxes.
 - high firing costs.
31. The real interest rate is:
- the same as the nominal interest rate.
 - the nominal interest rate plus expected inflation.
 - the nominal interest rate adjusted for the growth rate of the money supply.
 - the nominal interest rate minus expected inflation.
 - the nominal interest rate minus the expected consumer price index.
32. In analyzing long-run growth, we would count as improvements in “technology”:
- advances in basic scientific knowledge.
 - increases in the average amount of education obtained by a typical worker.
 - increases in the average amount of physical capital per worker.
 - the building of new infrastructure.
 - the development of new ways of managing businesses.
 - improvements in the rule of law and in the security of property rights.
 - (a), (b), and (c).
 - (a), (d), and (e).
 - (a), (e), and (f).
 - (b), (d), and (e).
33. When a payroll tax is imposed on a firm:
- the firm will employ the same number of workers but pay them less.
 - the firm’s labor demand curve is different from its marginal revenue product of labor curve.
 - the firm will increase employment to make up for the lost profits.
 - the supply curve of labor to the firm will shift out.
34. All of the following will tend to increase the quantity of investment in the long run **except**:
- a rise in the wealth of households.
 - a reduction in government expenditures.
 - a permanent increase in firms’ expectations of the future marginal revenue product of capital.
 - a permanent fall in the purchase price of capital.