

SAMPLE SECOND MIDTERM EXAMINATION

PART I: SHORT ANSWER

[60 POINTS TOTAL]

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

1. The U.S. is currently in the process of imposing tariffs on foreign steel, which we both produce domestically and import. Use welfare analysis to discuss who is likely to benefit and who is likely to suffer from the imposition of the tariff. (Confine your analysis to the impact within the U.S., not the impact on welfare abroad.) **[15 points]**
2. What would you expect to happen to the normal employment and wages of less educated men (many of whom work in low-skilled manufacturing jobs) if globalization causes the production of simple manufactured goods to move abroad? **[15 points]**
3. Suppose a union negotiates a wage that is above the prevailing equilibrium wage in some industry. What will happen to employment in this industry? After the negotiated wage goes into effect, will firms in this industry be paying workers more than the marginal revenue product of the last worker hired at the negotiated wage? **[15 points]**
4. Suppose that technological progress makes capital more productive. How, if at all, is this likely to affect the investment demand curve? **[15 points]**

PART II: PROBLEMS

[60 POINTS TOTAL]

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

5. Consider a good that the U.S. both produces domestically and exports, such as soybeans.
 - a. Suppose the world price of soybeans falls. How will this development affect production and consumption of soybeans in the U.S., our soybean exports, and the consumer surplus of American consumers? (For simplicity, you should assume that the fall in the price is small enough that the U.S. remains an exporter of soybeans.) **[15 points]**
 - b. Illustrate the effects of the development in part (a) using the production possibilities curve/consumption possibilities curve with trade (PPC/CPC) diagram for the United States. How, if at all, will the fall in the relative price of soybeans affect the combination of soybeans and everything else that the U.S. chooses to produce, and the combination it chooses to consume? **[15 points]**
6. Consider the markets for high-skilled and low-skilled labor. Suppose increased education causes some low-skilled workers to become high-skilled **and** increases the productivity of both types of workers.
 - a. What is this development likely to do to the wage of low-skilled workers relative to the wage of high-skilled workers? **[15 points]**
 - b. What will the increase in education do to the economy's potential or normal level of output per person (Y^*/POP)? **[15 points]**

PART III: MULTIPLE CHOICE

[30 POINTS TOTAL]

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

7. The nominal price of a Big Mac (that is, its price in dollars) has doubled since 1988. The real (inflation-adjusted) price of a Big Mac is higher today than it was in 1988 if:
 - a. the overall price index (the CPI) has more than doubled since 1988.
 - b. the overall price index (the CPI) has less than doubled since 1988.
 - c. nominal GDP has more than doubled since 1988.
 - d. nominal GDP has less than doubled since 1988.
8. If the nominal interest rate is i , the present value of $\$D$ to be received n years in the future is:
 - a. $\$D/(1+i)^n$.
 - b. $\$D/(1+n \cdot i)$.
 - c. $n \cdot \$D/(1+i)$.
 - d. $(1+i)^n \cdot \$D$.
9. When an individual's wage rises:
 - a. both the substitution effect and the income effect make the individual want to supply more labor to the market.
 - b. both the substitution effect and the income effect make the individual want to supply less labor to the market.
 - c. the substitution effect makes the individual want to supply more labor to the market, but the income effect makes them want to supply less labor to the market.
 - d. the substitution effect makes the individual want to supply less labor to the market, but the income effect makes them want to supply more labor to the market.

10. A permanent increase in government purchases will cause the normal or long-run real interest rate (r^*) to:
 - a. rise.
 - b. fall.
 - c. stay the same.
 - d. rise if inflation falls and fall if inflation rises.
11. The “natural rate of unemployment” is:
 - a. zero.
 - b. the lowest possible unemployment rate.
 - c. the unemployment rate that would prevail in the absence of any government policies affecting the labor market.
 - d. the unemployment rate when the economy is operating at its normal or comfortable capacity, so that output equals potential output.
 - e. the unemployment rate that maximizes total social surplus.
12. A rightward shift of the demand curve for inventions is likely to increase an economy’s normal level of output per person mainly by:
 - a. increasing the normal amount of physical capital per person.
 - b. increasing the normal amount of human capital per person.
 - c. increasing the amount of infrastructure per person.
 - d. improving technology.
 - e. increasing the normal fraction of the population that is employed.
13. Two of the sections of the research paper “Do Real-Output and Real-Wage Measures Capture Reality?” by William Nordhaus that you read are concerned with:
 - a. “The Spread of Information Technology in the 1990s” and “The Crucial Distinction between Nominal and Real Wages.”
 - b. “Wages from 1930 to Today” and “Sources of Measurement Error in Nominal Wage Series.”
 - c. “The Transition from Home to Factory Production of Cloth” and “The Challenge of Accounting for the Risk of Death on the Job.”
 - d. “Milestones in the History of Light” and “Comparison of True and Traditional Prices.”
14. Suppose Scotland and Ireland can each make two goods: haggis or oatcakes. A typical worker in Scotland can make either 2 haggis or 10 oatcakes in an hour. A typical worker in Ireland can make either 1 haggis or 8 oatcakes in an hour. For both countries to want to specialize and trade, the terms of trade between haggis and oatcakes must be between:
 - a. 8 and 10 oatcakes per haggis.
 - b. 5 and 8 oatcakes per haggis.
 - c. 4 and 8 oatcakes per haggis.
 - d. 4 and 5 oatcakes per haggis.
 - e. 1 and 2 oatcakes per haggis.
15. The main reason wages in countries like Japan and France are so much higher than wages in countries like Angola and Bangladesh is that:
 - a. workers in countries like Angola and Bangladesh are exploited by their employers, and so earn much less than their marginal revenue products.
 - b. strong unions and minimum-wage laws in countries like Japan and France push wages above the level corresponding to the intersection of labor supply and labor demand.
 - c. because people in Japan and France are so much richer than people in Angola and Bangladesh, they want to work much less; this low labor supply causes the equilibrium wage to be high.
 - d. the high levels of capital per worker, education, and technology in countries like Japan and France cause the marginal revenue product of labor at a given level of employment to be high, and so cause the equilibrium wage to be high.
16. Consider a firm that rents its capital and that sells its output in a competitive market. If a rise in the demand for the good the firm produces causes the price of the good to rise, the firm’s demand curve for rental capital will shift:
 - a. to the right.
 - b. to the left.
 - c. to the right if the demand curve for the good is elastic, but to the left if the demand curve for the good is inelastic.
 - d. to the right if the demand curve for the good is inelastic, to the left if the demand curve for the good is elastic.