

Your name and honor code pledge:

Economics 101
Professor Joyce Jacobsen
Spring Semester 2005-06
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Final Exam

Points for each section are shown out of 200 points. Each subsection is weighted equally.

A. (40 pts) Answer True, False, or Uncertain, and briefly explain your answer.

(1) If the cross-elasticity of demand (E_{XY}) is positive, good X is a substitute for good Y.

(2) If marginal cost is rising, average cost is falling and total cost is rising.

(3) Natural monopolies have declining long-run average costs, high fixed costs, and high demand relative to firm scale.

(4) In long-run equilibrium under monopolistic competition, marginal revenue equals marginal cost, and price is greater than average cost.

A. (continued)

(5) For factors of production in perfectly inelastic supply, all factor payments are economic rent.

(6) Real GDP is always less than nominal GDP.

(7) The Phillips Curve for the U.S. for 1954-69 is downward sloping.

(8) In a two-country model without trade restrictions or transport costs, the price of a traded good must be the same in both countries, and the quantity of a good exported by one country must equal the quantity imported by the other.

B. (40 pts) Short answers.

(1) What are the three pillars of economic growth?

(2) What are the three components of investment?

(3) What are the three tools of fiscal policy?

(4) What is the difference between the government budget deficit and the national debt?

B. (continued)

(5) What are the three functions of money?

(6) What are the three tools of monetary policy?

(7) In the equation $MV = PY$, what does V stand for?

(8) Assume a small country's banking system's balance sheet looks like this:

<u>Assets</u>		<u>Liabilities</u>	
Reserves	\$10,000	Deposits	\$40,000
Loans	\$40,000	Capital	\$10,000
	<u>\$50,000</u>		<u>\$50,000</u>

What is the reserve ratio of this system? What is the money multiplier?

C. (40 pts) Circle one answer for each question.

(1) Which of the following is a property of isoquants?

- a. They can cross
- b. They have positive slope
- c. more inputs produce less output
- d. balanced inputs are better than unbalanced inputs

(2) Which of the following is not a correct statement about profit?

- a. profit equals total revenue minus total cost
- b. economic profit equals accounting profit
- c. accounting profits include payments for capital
- d. marginal profit equals marginal revenue minus marginal cost

(3) Which of the following is not a necessary condition for perfect competition?

- a. Many sellers, many buyers relative to the scale of the market
- b. Differentiated/heterogeneous product
- c. Free entry and exit
- d. Well-informed sellers and buyers

(4) Which of the following statements about price discrimination is true?

- a. It is Pareto inefficient compared to a single-price monopoly
- b. It may be necessary in order to a firm (or industry) to survive
- c. It always involves charging the same price to all customers
- d. It can be first-degree, second-degree, third-degree, or fourth-degree

(5) Which of the following is not one of the three types of unemployment?

- a. cyclical
- b. frictional
- c. potential
- d. structural

C. (continued)

(6) If both the price level and real output fall, then which of the following has happened?

- a. AD shifted right
- b. AD shifted left
- c. AS shifted right
- d. AS shifted left

(7) What pattern of AS-AD shifts was Clintonomics consistent with?

- a. AD shifting right
- b. AD shifting left
- c. AS shifting right
- d. AS shifting left

(8) What is U.S. GDP (as of December 2005)?

- a. \$128 billion
- b. \$1.28 trillion
- c. \$12.8 trillion
- d. \$128 trillion

(9) What is the current value of the target federal funds rate?

- a. 3.75%
- b. 4.00%
- c. 4.75%
- d. 5.00%

(10) If the freely-floating Euro exchange rate changes from \$1.10 to \$1.20, we say:

- a. The Euro has appreciated
- b. The Euro has been devalued
- c. The Euro has depreciated
- d. The Euro has been revalued

D. (20 pts) Draw your graphs neatly and label axes and points clearly.

(1) Draw a supply-demand diagram for a market and show the market in an initial equilibrium.

(2) On the graph above, show what happens if population increases.

(3) Now draw a supply-demand diagram for a market that is subject to a price floor. Show what happens relative to the initial equilibrium (as in **1**).

(4) If population decreases, does this make the situation better or worse in this market? Show what happens on the graph in **3**.

E. (20 pts) Short Answers. Show your work.

Consider the following simple model of the economy:

$$AD = C + I + G + NX$$

$$C = 400 + .80DI$$

$$I = 60$$

$$G = 50$$

$$DI = Y - T$$

$$T = 50$$

$$NX = 10$$

(1) Solve for equilibrium national income (Y).

(2) What is the multiplier?

(3) If G is increased to 60, what is the new level of equilibrium national income?

(4) If both G and T are increased to 60, what is the new level of equilibrium national income?

F. (20 pts) Draw your graph neatly and label axes and points clearly.

(1) Draw an AS-AD graph including the LRAS, SRAS and AD curves and show the economy in an initial equilibrium that is both a short-run and a long-run equilibrium.

(2) On the graph above, illustrate a supply shock that leads to an inflationary gap.

(3) What has happened to prices and output as a consequence of this supply shock?

(4) What will happen next if the economy is left to equilibrate without government intervention?

G. (20 pts) Draw your graphs neatly and label axes and points clearly.

(1) Draw a supply-demand diagram for a foreign exchange market (e.g., Yuan) and show an initial equilibrium (with the price of a Yuan in U.S. dollars).

(2) On the graph above, show what happens if the U.S. goes into a recession.

(3) Now draw a supply-demand diagram for a foreign exchange market if the foreign country is running a balance of payments surplus.

(4) If a country is running a balance of payments surplus, what is happening to its reserves of foreign currency? In order to make its balance of payments equal zero, does its currency need to be revalued or devalued?