| Economics 102 | Name |
| :--- | :--- |
| Spring 2014 | TA Name |
| $03 / 03 / 2013$ | Discussion Section \#__ |
| First Midterm | Student ID \# |

## DO NOT BEGIN WORKING UNTIL THE INSTRUCTOR TELLS YOU TO DO SO

## READ THESE INSTRUCTIONS FIRST.

You have 50 minutes to complete the exam. The exam consists of $\mathbf{1 0}$ binary choice worth 2.5 points and 15 multiple choice questions worth 5 points. Please accurately and completely provide your name, ID number, discussion section number, version number, and TA name on the scantron sheet and the exam booklet. Answer all questions on the scantron sheet with a \#2 pencil.

## NO CELL PHONES, CALCULATORS, OR FORMULA SHEETS ARE ALLOWED.

## PICK THE BEST ANSWER FOR EACH OUESTION.

How to fill in the scantron sheet and other information:

1. Print your last name, first name, and middle initial in the spaces marked "Last Name," "First Name," and "MI." Fill in the corresponding bubbles below.
2. Print your student ID number in the space marked "Identification Number." Fill in the bubbles.
3. Write the number of the discussion section you've been attending under "Special Codes" spaces ABC, and fill in the bubbles. You can find the discussion numbers below on this page.
4. Write the version number of your exam booklet under "Special Codes" space D , and fill in the bubble. The version number is on the top of this page.

- If there is an error on the exam or you do not understand something, make a note on your exam booklet and the issue will be addressed AFTER the examination is complete. No questions regarding the exam can be addressed while the exam is being administered.
- When you are finished, please get up quietly and bring your scantron sheet and this exam booklet to the place indicated by the instructors.

| Section Number | Time | Location | TA |
| :--- | :--- | :--- | :--- |
| 350 | F $11-11: 50$ | Ingraham 113 | Pedro Hancevic |
| 352 | R 2:25-3:15 | SSB 4308 | Pedro Hancevic |
| 353 | R 3:30-4:20 | $\underline{\text { SSB 6322 }}$ | Pedro Hancevic |
| 354 | F 8:50-9:40 | $\underline{\text { Ingraham 225 }}$ | Zach Flynn |
| 351 | F $11-11: 50$ | Ingraham 215 | Zach Flynn |
| 356 | F 9:55-10:45 | Van Hise 240 | Zach Flynn |
| 359 | F 12:05-12:55 | $\underline{\text { Ingraham 223 }}$ | Zach Flynn |
| 355 | F 9:55-10:45 | Van Hise 374 | Emily Walden |
| 358 | F 12:05-12:55 | $\underline{\text { Ingraham 115 }}$ | Emily Walden |

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## Binary Choice (worth 2.5 points each)

1. Michael has been stuck at a part-time job he dislikes for four years. He has spent these years constantly searching for a better option but has been unable to find one. Is he unemployed?
a) Yes, he is unemployed.
b) No, he is not unemployed.
2. Which of the following statements is true?
a) If the nominal GDP growth rate is negative, then the quantities of final goods and services domestically produced this year are smaller than the quantities produced last year.
b) If GDP grows, then the Production Possibilities Frontier is shifting out.
3. More unemployment increases income inequality.
a) This statement must be true.
b) This statement may not be true.
4. If the GDP deflator doubles, it indicates that:
a) The output adjusted for number of workers has doubled.
b) Price levels have doubled.
5. If the government announces today that a tax increase of 50 cents per pack of cigarettes is to take place in two weeks, what would you expect to happen today to the current market for cigarettes?
a) The demand for cigarettes would increase.
b) The price of cigarettes would decrease.
6. Inventories are stocks of goods and raw materials held to facilitate business operations. According to the national accounts system, changes to inventories
a) would be included as a component of investment spending.
b) would not be included as a component of investment spending.
7. Which of the following factors could cause the demand curve for labor to shift to the right?
a) The price of capital increases.
b) The wage rate increases.
8. Countries A and B Produce only goods $X$ and $Y$. If the countries trade optimally, which of the following graphs could represent the joint PPF of countries A and B?

a) Graphs 1, 2, and 3 .
b) Graphs 1 and 3 .
9. "The United States will have more debt than France next year." This is an example of a ___ statement.
a) Positive
b) Normative
10. Refer to the graph below. Which of the following movements depicted in the two graphs best describes a change in supply caused by a decrease in the cost of inputs?


a) The movement from e to $f$ on the graph on the left side.
b) The movement from e to $g$ on the graph on the right side.

## Multiple Choice (worth 5 points each)

11. The GDP is the market value of all the final goods and services
a) produced domestically.
b) produced by domestically owned factors of production.
c) produced by all factors of production.
d) bought by consumers during the time period under consideration.
e) Answers (a), (b), (c) and (d) are all true about GDP.
12. Consider the market for automobiles. Suppose the demand equation for an individual consumer in this market is given by the equation

$$
P=2000-2 Q .
$$

If there are 100 identical consumers in the market for automobiles, what is the equation for the market demand curve in slope-intercept form?
a) $\mathrm{P}=2000-0.02 \mathrm{Q}$
b) $\mathrm{P}=20-0.02 \mathrm{Q}$
c) $P=200,000-200 \mathrm{Q}$
d) $P=2000-200 \mathrm{Q}$
e) $\mathrm{P}=200,000-0.02 \mathrm{Q}$
13. Which of the following scenarios is an example that illustrates the concept of structural unemployment?
a) Snow ski instructors being out of work every summer.
b) People choosing to not work due to an increase in the benefits they receive from welfare.
c) A car manufacturing worker in Detroit is currently not getting paid due to a labormanagement dispute that has resulted in autoworkers not working.
d) After a stock market crash, people start saving to rebuild their lost wealth. Due to this saving, demand for products today is weak and so employers reduce the number of people they employ.
e) Stanley and Alice both graduated from college in December and they are still looking to find a job that matches their skills and talents.
14. A medical society has recently announced that a glass of red wine in the evening can reduce the risk of heart disease. An arctic front has caused a large freeze in Central California and greatly reduced the crop of grapes. Given this information and holding everything else constant, what will happen in the market for red wine? Relative to the initial equilibrium price and equilibrium quantity,
a) the equilibrium price will increase, and the equilibrium quantity will be indeterminate.
b) the equilibrium price will decrease, and the equilibrium quantity will be indeterminate.
c) the equilibrium quantity will increase, and the equilibrium price will be indeterminate.
d) the equilibrium quantity will decrease, and the equilibrium price will be indeterminate.
e) both the equilibrium price and the equilibrium quantity will be indeterminate.
15. Gadget producers in Utopia are distressed that their gadgets are selling for very low prices. The gadget producers successfully lobby the government of Utopia to enact an effective price floor in the market for gadgets. Given this information, which of the following statements is true?
a) People in Utopia will keep buying the same amount of gadgets as they did before the price floor because no one will want to go through the day without their gadget.
b) People in Utopia will all think this price floor is a great idea since it will help the gadget producers.
c) People in Utopia will purchase even more gadgets once the effective price floor is enacted since the price floor will help them recognize just how valuable a gadget is.
d) People in Utopia will purchase the same amount of gadgets as they did before the enactment of the price floor because the price floor is effective.
e) People in Utopia will lose part of their consumer surplus: gadget producers will capture part of this surplus once this price floor is enacted.
16. Maria, George, and Farah produce roses and tulips. Maria has a comparative advantage over her friends George and Farah in producing roses, and George has a comparative advantage over Farah in producing tulips. The following graph shows their combined PPF. Which of the following statements is true?

a) Movement from point $A$ to point $B$ could occur if Farah produces more roses and fewer tulips.
b) Movement from point A to point B can occur if and only if both Maria and Farah produce more tulips and fewer roses and George keeps producing exactly the same number of roses and tulips as he was producing at point A .
c) Movement from point A to point B could occur if George produces more tulips and fewer roses.
d) Movement from point $A$ to point $B$ can occur if and only if both Maria and George produce more tulips and fewer roses and Farah keeps producing exactly the same number of roses and tulips as she was producing at point A .
e) Movement from point A to point B could occur if Farah produces more tulips and fewer roses and Maria and George keep producing exactly the same number of roses and tulips as they were producing at point A.

## Use the following information to answer the next 2 (TWO) questions.

Consider the hypothetical economy consisting of three firms in the table below. Ore, Inc. and Steel, Inc. produce ore and steel, of which they sell some to Motors, Inc. and the rest directly to consumers. The ore and steel produced by Ore, Inc. and Steel, Inc. are the only inputs used by Motors, Inc.

|  | Ore, Inc. | Steel, Inc. | Motors, Inc. |
| :--- | ---: | ---: | ---: |
| Value of input goods | $\$ 0$ | $\$ 4,000$ | $\$ 9,000$ |
| Wages | $\$ 2,000$ | $\$ 3,000$ | $\$ 10,000$ |
| Interest payments | $\$ 1,000$ | $\$ 500$ | $\$ 1,000$ |
| Rent | $\$ 500$ | $\$ 500$ | $\$ 2,000$ |
| Value of final goods | $\$ 6,000$ | $\$ 8,000$ | $\$ 23,000$ |

17. What is the GDP of this economy?
a) $\$ 3,500$
b) $\$ 20,500$
c) $\$ 23,000$
d) $\$ 24,000$
e) $\$ 33,000$
18. Which of the following statements is true?
a) In this economy the total profit of firms equals $\$ 3,500$.
b) In this economy the total profit of firms equals $\$ 14,000$.
c) The value added of the firm Motors, Inc. is $\$ 14,000$.
d) Both a) and b) are correct.
e) Both a) and c) are correct.
19. Suppose that in a hypothetical economy there are 400 people who have jobs and 100 people who are at least 16 years old that do not have jobs. You also know that within this same economy there are 90 people who are looking for a job: some of these 90 people are unemployed and some of them are currently employed but looking for a better job. Finally, you know that in this population of people, there are 20 people who do not have jobs and have stopped looking for jobs. Given this information, how many of these people are unemployed?
a) 70 people
b) 80 people
c) 90 people
d) 100 people
e) There is not enough information to answer this question.

## Use the following information to answer the next 3 (THREE) problems.

Suppose that there is a small, closed economy that produces bananas and the market for bananas in this small economy can be described by the following equations where $P$ is the price of a banana (in cents) and Q is the quantity of bananas:

Domestic Demand for Bananas: $\mathrm{Q}=80-(1 / 2) \mathrm{P}$
Domestic Supply of Bananas: $\mathrm{Q}=\mathrm{P}-40$
Furthermore, you know that the world price of bananas is 60 cents.
20. If this small economy does not open the banana market to trade, then consumer surplus is
a) twice the value of producer surplus and the equilibrium quantity of bananas is 40 bananas.
b) half the value of producer surplus and the equilibrium quantity of bananas is 80 bananas.
c) $\$ 3.20$ while the value of producer surplus is $\$ 0.80$.
d) larger than it would be if the small economy opened this market to trade.
e) the same as it would be if the small economy opened this market to trade.
21. Suppose this small economy opens its banana market to trade. Given the above information, which of the following statements is true?
a) Opening this market to trade is beneficial to this small economy.
b) Opening this market to trade allows domestic consumers to consume more bananas.
c) Opening this market to trade results in a movement along the domestic supply curve.
d) Answers (a) and (b) are both true statements.
e) Answers (a), (b) and (c) are all true statements.
22. Suppose this small economy opens its banana market to trade and, at the same time, the government of this small economy limits the number of banana imports into the economy. Given the above information and holding everything else constant, for this import quota to be effective it must be
a) Set at a level of at least 30 bananas.
b) Set at a level of at least 60 bananas.
c) Set at a level of no more than 20 bananas.
d) Set at a level of no more than 30 bananas.
e) Set at a level of no more than 60 bananas.
23. The number of potential workers in an economy is 4 . Labor supply is given by $L=W$, where W is the wage. Labor Demand is given by $\mathrm{L}=10-\mathrm{W}$. What is the long-run unemployment rate?
a) 50 percent
b) 25 percent
c) 20 percent
d) 60 percent
e) 0 percent

## Use the following information to answer the next 2 (TWO) problems.

Majd and Salam can produce snowboards and skis. Every 2 hours, Majd can produce 4 snowboards and 12 skis, or he can produce 2 snowboards and 18 skis. Every hour, Salam can produce 4 snowboards and 8 skis, or he can produce 8 snowboards and no skis. Majd and Salam each work 4 hours a day.
24. Working together, what is the maximum number of skis that Majd and Salam can produce in two days?
a) 224 skis
b) 112 skis
c) 320 skis
d) 168 skis
e) 96 skis
25. If Majd and Salam decide to trade with each other, what range of prices in terms of skis would be acceptable to both parties for 5 snowboards?
a) between 10 and 15 skis
b) between 2 and 3 skis
c) between $1 / 15$ and $1 / 10$ skis
d) between $1 / 3$ and $1 / 2$ skis
e) between $5 / 3$ and $5 / 2$ skis

## Answers

1. b
2. b
3. b
4. b
5. a
6. a
7. a
8. b
9. a
10. b
11. a
12. a
13. b
14. a
15. e
16. b
17. d
18. e
19. b
20. a
21. e
22. d
23. e
24. a
25. a
