Midterm Examination #1

Information/Instructions

Name_________________________
Signature ______________________
Student ID _____________________
TA___________________________
Discussion Number______________

This exam is closed book/closed notes. No calculators.

You have 50 minutes to complete the exam. The exam consists of 20 multiple choice questions. The first 5 questions are each worth 1 point; the final 15 questions are each worth 2 points, for a total of 35 points. 1 point will be deducted for failing to fill out the answer sheet correctly. You must use a #2 pencil to complete the exam.

How to Fill Out the Coding Sheet

1. Print your last name, first name, and middle initial in the spaces marked “last name”, etc. Fill in the corresponding bubbles below.
2. Print your student ID number in the spaces marked “identification number.” Fill in the bubbles.
3. Write your discussion section number under “special codes” spaces ABC and fill in the bubbles.

Use your judgment in answering these questions. If you are confused about any question and/or answer, raise your hand and ask a proctor for clarification. Remember, we are looking for the best answer to each question.

When you are done with the exam, please remain in your seat. Raise your hand and the proctors will come to collect your answers as well as this sheet. You must show your student id when your exam is collected.
1 point questions

1. Between December 2003 and December 2004, based on the consumer price index, inflation in the United States was approximately
   a. 0.5%
   b. 3.3%
   c. 6.8%
   d. 10.3%

2. As of January 2005, the population of the United States was approximately
   a. 155 million
   b. 205 million
   c. 295 million
   d. 355 million

3. In December 2004, the unemployment rate of the United States was approximately
   a. 1.4%
   b. 5.4%
   c. 9.4%
   d. 13.4%
4. In December 2004, the civilian labor force of the United States was approximately
a. 48 million
b. 108 million
c. 148 million
d. 198 million

5. In January 2005, the interest rate on 3 month Treasury Bills was approximately
a. 0.3%
b. 2.3%
c. 4.8%
d. 7.5%

2 point questions

6. Suppose that the aggregate demand schedule is \( Y^d = a - .5P \) and the aggregate supply schedule is \( Y^s = c \). Suppose that \( c \) is increased to \( c + 2 \). What is the effect on the equilibrium price?

a. The price level does not change
b. The price level decreases by 2
c. The price level decreases by 4
d. One cannot tell unless one knows \( a \) and \( c \)
7. Suppose that the aggregate demand schedule is \( Y^d = a - bP \ a > 0, \ b > 0 \) and the aggregate supply schedule is \( Y^s = c + dP \ c > 0, \ d > 0 \). Which of the following will never simultaneously raise output and lower price

a. increase \( a \)

b. decrease \( c \)

c. decrease \( a \) and decrease \( c \)

d. none of these can simultaneously increase output and lower price.

8. In answering this question, think of price on the vertical axis and output on the horizontal axis. If the supply curve is horizontal and the aggregate demand curve is downward sloping, shifts of the aggregate demand curve will

a. either simultaneously raise price and output or simultaneously lower price and output, depending on the direction in which the shift occurs

b. either raise or lower output, depending on the direction in which the shift occurs, but have no effect on price

c. either raise or lower prices, depending on the direction in which the shift occurs, but have no effect on output

d. none of the above

9. In the two period consumption savings model, the price of consumption at time 1 in terms of units of income at time 0 is

a. 1

b. \( 1 + r \)

c. \( \frac{1}{1 + r} \)

d. 2

Note: \( r \) is the real interest rate between periods 0 and 1.
10. In the two period consumption savings model, suppose that the government announces that it will lower taxes by 1 unit at time 0 and raise them by 1+r units at time 1. Suppose that the consumer in the problem is already doing some saving at time 0. How will he respond to this change in taxes?

a. increase savings by 1 at time 0
b. increase consumption at time 0
c. decrease consumption at time 1
d. b and c

11. Suppose that the nation of Madisonia has an aggregate consumption function
\[ C = 100 + 0.5(Y - T) \]. Assume that \( T = 100 \), government purchases are 150, investment is 100, and net exports are 200. What is the equilibrium level of output?

a. 200
b. 700
c. 800
d. 1000

12. Suppose that the nation of Madisonia has an aggregate consumption function
\[ C = 100 + 0.5(Y - T) \]. Assume that \( T = 0.05Y \), government purchases are 150, investment is 100, and net exports are 200. Suppose that government purchases are increased by 1 to 151. What will the effect be on the government deficit, compared to the deficit when \( G = 150 \)?

a. the deficit increases by 1
b. the deficit increases by more than 1
c. the deficit increases by less than 1.
d. cannot determine without more information
13. Suppose that the marginal propensity to consume is .8, investment, government spending and net exports do not depend on income, and that there is a 50% tax on income. What is the government spending multiplier, according to the income expenditure model?

a. approximately 1.00  
b. approximately 1.67  
c. approximately 3.67  
d. approximately 5.00

14. In the income expenditure model, suppose that there is no income tax and that investment, government spending and net exports do not depend on income. Suppose that the level of investment is raised by 1 unit and the level of taxes is raised by 1 unit. What is the net effect on equilibrium output?

a. output increases by 1  
b. output decreases by 1  
c. output increases by $\frac{1}{1-c}$, where $c$ is the marginal propensity to consume.  
d. output does not change

15. Suppose the economy consists of 1000 members of the working age population, all of whom are working. Suppose that 500 lose their jobs. Of these 500, 250 look for new jobs, and 250 are discouraged and so do not look for new jobs. Based on the way the unemployment rate is calculated by the Bureau of Labor Statistics, what is the new unemployment rate in the population?

a. 25%  
b. 33%  
c. 50%  
d. 67%
16. Suppose the price level is 100 in the year $t$ and 120 in the year $t+1$. Suppose that a company is selling a promise to give $1.10 in year $t+1$ for 1 dollar given to the company in year $t$. What is the real interest rate on the promise? (Assume that the promise is certain to be kept.)

a. -10%

b. 0%

c. 10%

d. 20%

17. Holding the level of production of goods and services constant, a decrease in the level of the capital stock depreciation increases

a. gross domestic product

b. gross national product

c. net national product

d. all of the above

18. The GDP identity $Y = C + I + G + NX$ implies which of the following

a. consumption is greater than investment

b. taxes do not affect equilibrium output

c. a one dollar change in investment raises equilibrium output by one dollar

d. none of the above
19. According to the short side rule, if the price in a market does not equal the level that equates supply and demand, the level of output observed in the market will equal

a. the maximum of supply and demand at the price

b. the minimum of supply and demand at the price

c. some value strictly in between the level of supply and the level of demand at the price

d. none of the above

20. Suppose one observes that the budget deficit has increased. In the income expenditure model with an income tax, this observations implies which of the following must have occurred

a. the income tax rate has been lowered

b. the level of government spending has been increased

c. either the income tax rate has been lowered or the level of government spending has been increased

d. none of the above