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Economics 202

Midterm #2
Note that on the last page of this exam, there are equations provided (as discussed in class).

Part 1. Multiple Choice Questions (2 points each question)

1. According to how economists define investment, which one of the following statements about investment is **false**?
a. investment includes changes in inventories
b. investment includes the exchange of all stocks and bonds
c. investment decreases when inventories fall
d. investment includes the purchase of new capital equipment
e. investment is an expenditure that affects aggregate demand

2. What does the term "autonomous" mean?
a. the term refers to the use of computers in production
b. the term refers to how much we consume of certain goods
c. the term refers to expenditures that do not change with changes in income
d. the term refers to a type of transportation expenditure discussed in class

3. How does the Labor market relate to the Goods and Services market?
a. the demand for labor is derived from the level of output in the Goods and Services market
b. decreases in the output of goods and services can increase just voluntary unemployment
c. decreases in the output of goods and services can increase just involuntary unemployment
d. all of the above

4. Which of the following is true about voluntary unemployment within the Labor Market model:
a. voluntary unemployment occurs when firms reduce the quantity of labor that they hire
b. voluntary unemployment occurs when labor supply decreases but wages do not increase
c. voluntary unemployment occurs when the demand for labor decreases and wages also decrease
d. voluntary unemployment occurs when the equilibrium wage remains constant during a recession
e. voluntary unemployment occurs when the demand for labor decreases and wages remain the same

5. If there is an increase in the demand for loanable funds, then which of the following occur:
(note: assume that r^* = equilibrium interest rate, Q_{LF}^* = equilibrium quantity of loanable funds, and Q_{DS} = quantity of domestic savings at the current interest rate)
a. increase in r^* and Q_{LF}^*, but a decrease in Q_{DS}
b. decrease in r^*, increase in Q_{LF}^* and an increase in Q_{DS}
c. decrease in r^*, Q_{LF}^* and Q_{DS}
d. increase in r^*, Q_{LF}^* and Q_{DS}
e. increase in r^* and Q_{LF}^*, but no change in Q_{DS}

Questions #6-7 relate to the US Foreign Exchange market for Japanese currency (the yen).
6. If there is an increase in US capital inflow from Japan, then how is this market affected?
a. increase in the price of foreign exchange and an increase in the quantity of foreign exchange
b. decrease in the price of foreign exchange and a decrease in the quantity of foreign exchange
c. decrease in the price of foreign exchange and an increase in the quantity of foreign exchange
d. increase in the price of foreign exchange and a decrease in the quantity of foreign exchange

7. If the price of foreign exchange is dollars divided by yen, then how does an increase in the demand for foreign exchange affect this market?
a. the dollar depreciates relative to the yen
b. the dollar appreciates relative to the yen
c. Japanese goods are less expensive for US citizens
d. the yen depreciates relative to the dollar

8. Based on how we model the Loanable funds market in class, what do we know about the Domestic Savings curve that's included on the graph?
a. capital inflow causes the quantity of domestic savings to increase
b. capital outflow causes the quantity of domestic savings to increase
c. increases in the interest rate causes the quantity of domestic savings to increase
d. decreases in the interest rate causes the quantity of domestic savings to increase
e. both a and b

9. Where does "equilibrium" occur in the AE model:
a. where the aggregate demand curve intersects the aggregate supply curve
b. where aggregate demand curve intersects the aggregate expenditure curve
c. where income and real GDP are equal
d. where aggregate expenditure and real GDP are equal

10. What makes the government expenditure multiplier smaller in absolute value?
a. the marginal propensity to consume (MPC) decreases
b. Government spending decreases
c. Investment decreases
d. Taxes are decreased
e. both a and b are correct

11. Which statement about the MPC is true:
a. the MPC determines the rate at which autonomous consumption changes
b. the MPC can be greater in value than one
c. the MPC equals consumption expenditure divided by disposable income
d. the MPC increases whenever Consumption increases
e. the MPC shows how consumption changes with any change in disposable income

12. How does an increase in the MPC affect the economy?
a. the tax multiplier will become a positive value
b. more output will be produced
c. an inflationary gap will occur
d. a recessionary gap will occur

The information below corresponds with questions #13-17.

Assume that a certain country has the following equations describing its macroeconomy:

C = 0.6(DI) + 1100	C = consumption, DI = disposable income
I = 1000	I = investment
G = 1000	G = government spending
T = 500	T = tax revenue
X = 2000	X = exports
M = 2000	M = imports
DI = Y – T	Y = real GDP
Yp = 10,000	Yp = Potential real GDP

13. What is the value of this country's government expenditure multiplier?
a. 2.5
b. 1.5
c. 0.6
d. 5
e. none of the above

14. What is the value of this country's tax multiplier?
a. - 0.6
b. - 1.5
c. - 2.5
d. - 5
e. none of the above

15. If this economy produces where Y = 7000, then what will be overall savings?
a. S = 2250
b. S = 2000
c. S = 1500
d. S = 2500
e. none of the above

16. Which of the following is a true statement about this country's government budget:
a. the government's budget is in a deficit
b. the government's budget is in a surplus
c. the government's budget is balanced
d. none of the above

17. Which of the following is a true statement about this country's trade balance:
a. this economy has a trade deficit
b. this economy has a trade surplus
c. this economy has net exports of 0
d. none of the above

18. If MPC = 0.5, then what change in DI would bring a $70 increase in Consumption?
a. Consumption would increase by $70 if DI increased by $70
b. Consumption would increase by $70 if DI increased by $35
c. Consumption would increase by $70 if DI increased by $140
d. Consumption would increase by $70 if DI increased by $100
e. not enough information is given to calculate an answer

Use the table below to answer Questions #19-22. Assume that this table provides consumption and savings for a society at different levels of disposable income. Assume further that the marginal propensity to consumer in this economy is 0.8 (i.e. MPC = 0.8).

Row	**C**	**S**	**DI**
1	8,400		8,000
2	9,200		9,000
3			10,000

C = Consumption
S = Savings
DI = Disposable Income

19. What is the value of savings (S) in row 2?
a. 200
b. 400
c. 600
d. 800
e. none of the above

20. What is the value of consumption (C) in row 3?
a. 8,000
b. 8,800
c. 9.400
d. 10,000
e. none of the above

21. Which of the following is a true statement about the economy depicted in the table above:
a. this economy experiences dissaving when disposable income is $8000
b. this economy experiences dissaving when disposable income is $9000
c. this economy is at the breakeven point when disposable income is $10000
d. all of the above
e. none of the above

22. What is the value of the average propensity to consume (APC) in row 1:
a. APC = 0.95
b. APC = 0.80
c. APC = 1.00
d. APC = 1.05
e, none of the above

23. In the AE model, if the government decides to increase both government spending and taxes by $1000, then what effect does this have on the economy?
a. real GDP will increase by $1000
b. real GDP will remain unchanged
c. real GDP will increase by more than $1000
d. real GDP will increase by less than $1000

24. In the AE model, if the government decides to increase government spending by $1000, then what effect does this have on the economy?
a. real GDP will increase by $1000
b. real GDP will remain unchanged
c. real GDP will increase by more than $1000
d. real GDP will increase by less than $1000

25. Which of the following is not an example of fiscal policy:
a. reducing the expenditure on national parks
b. increasing taxes on junk food
c. paying off part of the national debt by printing more (new) money
d. eliminating loop holes in the tax code

26. As discussed in class, what is the basic problem associated with "pork barrel spending"?
a. the political incentives of politicians are not necessarily compatible with the economic goals of society as a whole
b. increasing spending tends to be inflationary
c. this type of spending tends to raise interest rates
d. this type of spending tends to occur more during inflationary gaps

27. During an inflationary gap, which example of fiscal policy would work best?
a. increasing the money supply
b. increasing government expenditure
c. increasing taxes
d. increasing government expenditure and taxes by the same amount
e. all of the above are correct

28. When the economy is experiencing a recession, the most likely demand management policy would involve government implementing a(n) _______________ in order to _______________
a. decrease in the tax rate on capital; increase the amount of available capital
b. decrease in the tax rate on income; increase the amount of available labor
c. series of laws designed to deregulate business; lower the cost of firms
d. increase in taxes; increase Aggregate Demand or Aggregate Expenditure
e. increase in government spending; increase Aggregate Demand or Aggregate Expenditure

29. Which of the following is the most accurate statement about the term “inside lag”:
a. the inside lag refers to a period of time between when an economic problem is recognized and a policy is implemented to solve the economic problem
b. the inside lag refers to a period of time between when a policy is implemented to solve an economic problem and the point where the problem is solved domestically
c. the inside lag refers to a period of time when higher rates of consumption are lowering investment spending within the economy
d. the inside lag refers to a period of time when investment expenditure is reacting to changes in domestic savings

30. When the number of government bonds increases, what is the most likely general result?
a. bond prices will rise, interest rates will fall
b. bond prices will fall, interest rates will rise
c. both bond prices and interest rates will rise
d. both bond prices and interest rates will fall

31. As discussed in class, what is crowding out?
a. where higher taxes lead to lower consumption expenditure
b. where higher taxes lead to lower savings
c. where government borrowing tends to lower (private) investment expenditure
d. where increases in nominal wages lead to firms laying off more employees

32. As discussed in class, which of the following is the best description of the purpose of the trend line on a business cycle graph:
a. points above the trend line show us future rates of growth, points below the trend line show us prior rates of growth
b. points above the trend line are positive values, points below the trend line are negative values
c. the trend line shows us the rate of increase in job growth
d. the trend line reveals the depth of any recessionary or inflationary gap
e. the trend line reveals the average rate of growth in GDP over time

33. In its effort to balance the budget over time, government has decided to lower taxes during recessionary gaps and raise taxes during inflationary gaps. Which budget balancing philosophy is closest to what they've adopted:
a. the balance annually approach
b. the balance over the business cycle approach
c. the demand management approach
d. all of the above

34. Which budget balancing philosophy creates an incentive for smaller government budgets:
a. the balance annually approach
b. the balance over the business cycle approach
c. the demand management approach
d. all of the above

35. Assume that government changes their budget balancing philosophy from balancing annually to the functional finance approach. Soon after, the economy goes into recession. With this in mind, fill in the appropriate words in the sentence below.

In this situation, the recession will lead to a __________, and government will react by __________, which has a ___________ effect on the business cycle.

a. budget surplus; increasing government expenditure; countercyclical
b. budget deficit; decreasing government expenditure; procyclical
c. budget surplus; decreasing government expenditure; procyclical
d. budget surplus; increasing government expenditure; procyclical
e. budget deficit; increasing government expenditure; countercyclical

Part 2. Short Answer Questions (30 points overall)

The equations below correspond with Question #1. To ensure that you receive full credit on this question, please show any relevant work. No work means no credit.

Assume these equations describe expenditure in an economy that fits the assumptions of the AE model from class.

$C = 0.8(DI) + 4000$	C = consumption expenditure, DI = disposable income
$I = 8000$	I = investment
$G = 5000$	G = government expenditure
$X = 3000$	X = exports
$M = 2000$	M = imports
$T = 5000$	T = tax revenues
$DI = Y - T$	Y = real GDP

[6 pts] 1. Assume that Potential GDP is equal to 80,000 and then show what type of output gap this economy experiences when producing at equilibrium (real) GDP.

Part 2. Short Answer Questions cont.

The equations below correspond with Questions #2-3. Questions #2-3 involve the use of a specific multiplier to answer the question. Note that in order to get full credit, you must use that multiplier and show any relevant work or make it clear as to how you got your answer. Simply writing a number down without supporting work will get no credit.

Assume these equations describe expenditure in an economy that fits the assumptions of the AE model from class.

C = 0.8(DI) + 2000	C = consumption expenditure, DI = disposable income
I = 5000	I = investment
G = 6000	G = government expenditure
X = 2500	X = exports
M = 1000	M = imports
T = 6000	T = tax revenues
DI = Y - T	Y = real GDP

[6 pts] 2. Assume that Yp – Y* = 5000, which means that this economy is producing $5000 less than their Potential GDP. Use the government expenditure multiplier to show how much of a change in government spending is needed to close this gap.

[6 pts] 3. Use the government expenditure multiplier to show how a $2000 decrease in government expenditure will affect equilibrium GDP.

Part 2. Short Answer Questions cont.

The equations below correspond with Question #4. Question #4 involves the use of a specific multiplier to answer the question. Note that in order to get full credit, you must use that multiplier and show any relevant work or make it clear as to how you got your answer. Simply writing a number down without supporting work will get no credit.

Assume these equations describe expenditure in an economy that fits the assumptions of the AE model from class.

C = 0.8(DI) + 4000	C = consumption expenditure, DI = disposable income
I = 5000	I = investment
G = 4000	G = government expenditure
X = 3000	X = exports
M = 1500	M = imports
T = 4000	T = tax revenues
DI = Y - T	Y = real GDP

[6 pts] 4. Assume that Yp – Y* = 2000, which means that this economy is producing $2000 less than their Potential GDP. Use the tax multiplier to show how much of a change in taxes would be needed to close this gap.

Part 2. Short Answer Questions cont.

Credit on the question below will be based on the clarity of your answer and how well you demonstrate an understanding of the concept addressed in this question. Although not required, you may want to incorporate a graph into your answer.

[6 pts.] 5. Explain what crowding out is, how crowding out can arise, and how crowding out can affect the economy.

Equations

Here are some equations that can be used on this exam. Note that this list represents at least most, but not necessarily all of the equations we discussed in class. Note as well that these equations are identical to what we discussed in class. The terms within each equation are also identical to what we discussed in class, and should be defined within the exam as well.

AE = C + I + G + (X – M)

$$\Delta Y = \frac{1}{(1-MPC)}\Delta G$$

$$\Delta Y = \frac{-MPC}{(1-MPC)}\Delta T$$

$$APC = \frac{C}{DI}$$

$$APS = \frac{S}{DI}$$

$$MPC = \frac{\Delta C}{\Delta DI}$$

C + S = DI

DI = Y - T