

Middle East Technical University
Faculty of Economic and Administrative Sciences
Department of Economics
ECON 102 (Sections 01, 02, 03)
Ege, Şenses, Tunç

NAME:
SECTION:
ID No.

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TYPEA
SECOND MIDTERM EXAMINATION
Time allowed : 100 minutes)

PART I. ANSWER ALL OF THE FOLLOWING QUESTIONS. Show all of your calculations clearly. (56 points)

Assume that the economy of Blueland is at full employment equilibrium, with $Y=Y^*$. Its currency is BL. Following relationships hold in the economy of Blueland:

$$MD = 2000 - 400i, \quad MS = 400, \quad I = 250 - 20i$$

Where MD = money demand, MS = money supply, I = investment demand, i = interest rate, Y = GDP, Y^* = potential GDP.

1.1. (2 points) The equilibrium interest rate is _____ and the investment demand at the equilibrium i is _____.

1.2. (2 points) If the economy of Blueland receives a negative demand shock, it enters a (recessionary gap / inflationary gap) _____ with ($Y > Y^*$; $Y < Y^*$) _____.

1.3. (3 point) Draw a diagram to demonstrate the position of the economy described in (1.2). In case of no government or central bank intervention, explain how the economy will return to full employment equilibrium and also show this adjustment on the graph you have drawn.

1.4. (1 point) What is the major difficulty that the economy faces in returning to full employment equilibrium in (1.3)?

1.5. (1 point) Assume that the Central Bank does not wish to wait until the economy reaches full employment equilibrium by itself, but wishes to intervene and bring the economy to full employment equilibrium much quicker than (1.3). The Central Bank calculates that an open market operation of 200 BL of securities will bring the economy back to full employment equilibrium. Then the Central Bank (buys / sells) _____ 200 BL of bonds from/to Mr. A (household), who holds a deposit account at a commercial bank.

1.6. (3 points) Show the initial effect of the open market operation in (1.5) on the balance sheets of the Central Bank, the commercial bank and the household (Mr. A).

1.7. (11 points) Assume that the required reserve ratio is 25%, banks hold no excess reserves and that there is no currency drain. At the end of the multiplier process which is triggered by the open market operation of the central bank in (1.5), the deposits in the commercial banks will (increase/decrease) _____ by _____ BL. The required reserves of the commercial banks will (increase/decrease) _____ by _____ BL. The loans of the commercial banks will (increase/decrease) _____ by _____ BL. The money supply in Blueland economy will (increase / decrease) _____ by _____ BL and will reach _____ BL.
(Please show all of your calculations.)

1.8. (4 points) Now assume that there is currency (cash) drain, but everything else is the same as in (1.7). Comparing the case of currency drain with your findings in (1.7), in case of currency drain, the deposits would be (higher / lower / same) _____, the required reserves would be (higher / lower / same) _____, the loans would be (higher / lower / same) _____. The money supply would be (higher/lower/same) _____. (You do not need to make any calculations in answering this question.)

1.9. (2 points) Instead of engaging in open market operations as in (1.5), the Central Bank could alternatively use which other tool and in which direction in order to bring the economy back to full employment equilibrium from the situation described in (1.2).

Name of the tool central bank could use _____

Direction _____

a. _____ (increase/decrease) _____

b. _____ (increase/decrease) _____

1.10. (4 points) The monetary policy implemented in (1.7 and 1.8) would be more effective if the money demand curve were (flatter / steeper) _____. Draw diagrams and explain.

1.11. (1 point) The new equilibrium interest rate becomes _____ % after the change in the money supply in (1.7).

1.12. (3 points) Explain the sequence of events after the change in the money supply in (1.7) until the money market adjusts in (1.11) and illustrate it graphically.

1.13. (3 points) Assume that the simple multiplier is 5 and there is no change in the level of prices. After the change in the money supply as in (1.7), the new level of investment will be _____, total change in aggregate expenditure will be _____ and change in the level of GDP will be _____.

1.14. (1 point) If the government thinks that the open market operation in (1.5) will not be enough to bring the economy back to full employment equilibrium, the government should also implement (expansionary / contractionary) _____ fiscal policy.

1.15. (11 points) Explain the process which the economy goes through in detail, after the monetary policy is initiated by (1.5) and the fiscal policy is initiated by (1.14). (Explain the process that the economy goes through separately for each policy after each policy is initiated and comment on the joint effects of the policy mix.) Draw diagrams as necessary to support your answer.

a. Sequence of events after the monetary policy is initiated as in (1.5) until the new long run equilibrium is reached:

b. Sequence of events after the fiscal policy is initiated as in (1.14) until the new long run equilibrium is reached:

c. Joint effects of the policy mix on Y , i , I and C

1.14. (2 points) If the government is not very keen in bringing the economy back to full employment equilibrium, but is keen to achieve an increase in private investment, then it should use a policy mix such that it should implement (expansionary / contractionary) _____ monetary policy and (expansionary / contractionary) _____ fiscal policy.

1.15. (2 points) Go back to (1.13). If we take into consideration the price changes, the value of the multiplier will be (higher than 5/ lower than 5/ equal to 5) _____ in the short run. What will be the value of the multiplier in the long run?

PART II – MULTIPLE CHOICE (22 x 2 = 44 points)

1. Economists generally agree that for a sustained inflation to occur,
 - a. the government must accommodate it by increasing government spending.
 - b. the Central Bank must accommodate it by increasing the money supply.
 - c. the government must accommodate it by decreasing taxes.
 - d. the Central Bank must accommodate it by decreasing the money supply.
 - e. the government must accommodate it by increasing transfer payments.
2. When the quantity of money supplied decreases,
 - a. the aggregate demand curve shifts leftward.
 - b. the aggregate supply curve shifts leftward.
 - c. the long run aggregate supply curve shifts leftward.
 - d. the economy moves along the aggregate demand curve.
 - e. the economy moves along the short run aggregate supply curve.
3. Which of the following statements is CORRECT?
 - a. The money supply does not play a role in creating sustained inflation.
 - b. The Central Bank is accommodating when government spending increases and the money supply decreases.
 - c. An increase in government spending results in no change in the price level if an economy operates on the vertical portion of its aggregate supply curve.
 - d. A lower price level causes the demand for money to decrease.
 - e. Higher prices require a decrease in the money supply to keep the interest rate constant and eliminate the crowding out effect of a higher interest rate.

4. A(n) _____ in aggregate demand when the economy is operating at low levels of output is likely to result in a(n) _____ in output with little or no _____ in the overall price level.
- decrease; increase; decrease
 - decrease; decrease; decrease
 - increase; increase; decrease
 - increase; decrease; decrease
 - increase; decrease; increase
5. At every point along the aggregate demand curve, the level of aggregate output demanded is _____
- greater than planned aggregate expenditure.
 - less than planned aggregate expenditure.
 - equal to planned aggregate expenditure.
 - less than or equal to planned aggregate expenditure.
 - unrelated to the concept of planned aggregate expenditure.
6. When the general price level rises,
- consumption falls as a result of the real wealth effect.
 - consumption increases as a result of the multiplier effect.
 - investment falls as a result of the real wealth effect.
 - investment rises as a result of the multiplier effect.
 - consumption falls as a result of the multiplier effect.
7. The intended goal of a policy mix including contractionary fiscal policy and contractionary monetary policy is _____
- an increase in interest rates.
 - an increase in price level.
 - an equalization of the distribution of income.
 - a decrease in the level of output.
 - a decrease in interest rates.
8. The first OPEC oil price shock in 1973/74 caused the short run aggregate supply curves in all industrialized countries to shift. Canada's Central Bank accommodated this supply shock with large increases in the money supply, while the Federal Reserve in the United States did not. The result was that _____
- both countries experienced large increases in price levels and almost no recession.
 - Canada experienced a large increase in its price level but almost no recession, and the U.S. experienced a smaller increase in its price level but a significant recession.
 - the U.S. experienced a large increase in its price level but almost no recession, and Canada experienced a smaller increase in its price level but a severe recession.
 - both countries experienced small increases in price levels and severe recessions.
 - None of the above.

9. Assume that the economy is on the vertical portion of its short run aggregate supply curve. In the short run, an increase in the money supply will cause a(n)
- increase in P and an increase in Y .
 - increase in P and a reduction in Y .
 - reduction in P and an increase in Y .
 - reduction in P and a reduction in Y .
 - increase in P and no change in Y .
10. A rightward shift in aggregate demand accompanied by an upward shift of the short-run aggregate supply curve should
- reduce unemployment but have an uncertain effect on the price level.
 - increase unemployment but have an uncertain effect on the price level.
 - reduce the price level but have an uncertain effect on unemployment.
 - increase the price level but have an uncertain effect on unemployment.
 - None of the above.
11. Fiscal policy affects the money market through its effect on
- national income and money supply.
 - national income and money demand.
 - money supply and money demand.
 - money supply and national income.
 - both a and b.
12. If GDP increases, there will be
- a shortage of money and equilibrium interest rate will rise.
 - a shortage of money and equilibrium interest rate will fall.
 - a surplus of money and equilibrium interest rate will rise.
 - a surplus of money and equilibrium interest rate will fall.
 - none of the above.
13. Which of the following events will lead to an increase in the equilibrium interest rate?
- A decrease in the level of aggregate output.
 - A decrease in the discount rate.
 - A purchase of government securities by the Central Bank.
 - An increase in the price level.
 - Both b and c.
14. The transactions demand for money is
- positively related to aggregate income.
 - positively related to the price level.
 - positively related to the interest rate.
 - All of the above.
 - Both a and b.
15. The main disadvantage of using money as a store of value is that
- money is not portable.
 - it requires double coincidence of wants.
 - banknotes are worthless pieces of paper.
 - the value of money actually falls when the prices of goods and services rise.
 - both c and d.

16. If the Central Bank accommodates an expansionary aggregate demand shock,
- it will eliminate the possibility of a sustained inflation.
 - there is the risk of sustained inflation.
 - wages will fall to reduce the resulting unemployment.
 - output will fall more rapidly than if the shock had not been accommodated.
 - the aggregate demand curve will shift to the left and stop an inflation.
17. A reduction in the price level will cause
- a rightward shift in the AD curve.
 - a leftward shift in the AD curve.
 - a rightward shift in the short run aggregate supply curve.
 - a leftward shift in the short run aggregate supply curve.
 - only a movement along the AD and short run aggregate supply curves.
18. Which of the following statements is CORRECT?
- Aggregate demand increases when the price level increases.
 - A lower price level leads to a higher interest rate.
 - A lower price level causes the demand for money to decrease.
 - The interest rate will fall with higher demand for money and constant money supply.
 - A higher interest rate causes aggregate output to increase.
19. Which of the following are determinants of money demand?
- Income, the interest rate, and the price level.
 - Unemployment, inventories, and saving.
 - Consumption, saving, and the interest rate.
 - The price level, the rate of inflation, and the national debt.
 - Planned investment, unemployment, and income.
20. When monetary authorities respond to a single supply shock with monetary accommodation, we can expect an increase in
- the money supply, but a decrease in costs and prices.
 - costs but a decrease in real national income.
 - the size of the output gap.
 - costs, the price level, and the money supply.
 - None of the above.
21. Contractionary monetary policy and expansionary fiscal policy would
- drive the interest rate down and planned investment up.
 - decrease both the interest rate and investment.
 - leave changes in the interest rate and investment undetermined.
 - increase both the interest rate and investment.
 - None of the above.
22. A short run policy mix consisting of contractionary monetary and fiscal policy will result in
- the interest rate rising and planned investment falling.
 - the interest rate falling and planned investment rising.
 - consumption and output rising.
 - consumption and output falling.
 - no effect on consumption, output, the interest rate and planned investment.