BIRZEIT UNIVERSITY

Department of Economics

ECON 3321 –Intermediate Macroeconomic

First Exam

84/100

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2nd semester 2014/2015 *Mr. Mohammad Amreyeh*

Answer Sheet

1.	A	B	C	X	E
2.	A	X	C	D	E
3.	X	B	C	X	E
4.	A	B	C	X	E
5.	A	X	C	D	E
6.	X	B	C	D	E
7.	A	B	X	D	E
8.	A	B	C	X	E
9.	A	B	X	D	E
10.	A	B	X	D	E
11.	A	X	C	X	E
12.	A	B	C	X	E
13.	A	B	X	D	E
14.	A	B	X	D	E
15.	A	B	X	D	E
16.	A	B	C	X	E
17.	A	B	C	X	E
18.	A	X	C	D	E
19.	A	X	C	X	E
20.	A	B	C	X	E
21.	A	B	C	X	E
22.	A	B	X	D	E

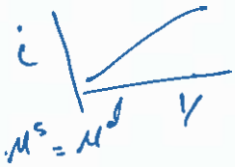
47.5

Section I: Multiple Choices (55 points)

1. A decrease in nominal income
   (A) Leads to a leftward shift of the money demand curve
   (B) lowers money demand for any given interest rate
   (C) lowers interest rates
   (D) all of the above

2. "Monetary base" refers to
   (A) The money supply divided by the price level.
   (B) The supply of central bank money.
   (C) The overall supply of money.
   (D) Nominal income times the function of interest rate.

3. The LM curve is the set of combinations of _____ such that _____.
   (A) interest rates (i) and real money balances (M^s), the money supply is equal money demand
   (B) Output (Y) and real money balances (M^s), the production of output is equal demand
   (C) Output (Y) and interest rates (i), the production of output is equal demand
   (D) Output (Y) and interest rates (i), the money supply is equal the money demand



4. Any change in the marginal propensity to consume (c_1)
   (A) Will shift the LM curve location.
   (B) Will change the slope of the LM curve.
   (C) Will shift the IS curve location.
   (D) Will change the slope of the IS curve.

5. Suppose fiscal policy makers implement a policy to reduce the size of a budget deficit by decrease the government spending. Based on the IS-LM model, we know with certainty that the following will occur as a result of this fiscal policy action.
   (A) Investment spending will increase.
   (B) Investment spending may increase, decrease, or not change.
   (C) There will be no change in investment spending.
   (D) Investment spending will decrease.

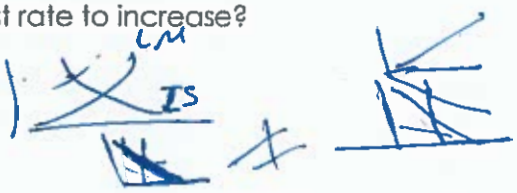
6. Suppose the economy is currently operating on both the LM curve and the IS curve. Which of the following is *False* for this economy?
   (A) The supply of central bank money equal to the overall supply of money
   (B) Production equals demand.
   (C) The money supply equals money demand.
   (D) All of the above are true

7. Which of the following occurs when disposable income is zero?
   (A) Saving must be zero
   (B) Consumption must be zero
   (C) Consumption must be positive
   (D) Saving is positive

Use the information below to answer question 8:
C = 1000 + .75YD
I = 850 ; G = 2500 ; T = 1000

8. The equilibrium level of GDP for the above economy equals:
   (A) 3600.
   (B) 4350.
   (C) 13400.
   (D) 14400.

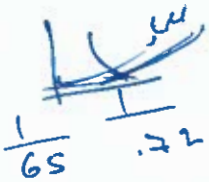
9. Which of the following events will cause the interest rate to increase?
(A) a decrease in the reserve ratio
(B) a decrease in nominal income
(C) an open market sale of bonds
(D) all of the above



10. An increase in the parameter c, the proportion of money individuals wish to hold as currency, will tend to cause which of the following?
(A) an increase in the consumption
(B) an increase in the money multiplier
(C) increase in the demand for central bank money
(D) both B and C are true

$H = C + \Phi(1-c)$

$\frac{1}{c+\Phi(1-c)}$

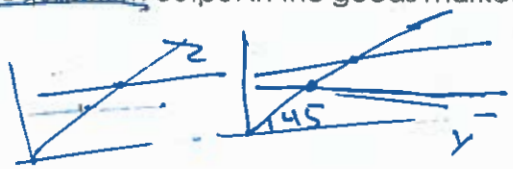


11. Which of the following is NOT a characteristic of bonds?
(A) Are sold for a price that varies inversely with the interest rate.
(B) Pay zero interest.
(C) Cannot be used for transactions.
(D) All of the above.

$P = \frac{100}{(1+i)}$

12. Suppose there is a simultaneous central bank sale of bonds and tax decrease. We know with certainty that this combination of policies must cause:
(A) an increase in the interest rate
(B) a reduction in the demand for money
(C) Output (Y) may increase, decrease, or not change.
(D) all of the above

13. Which of the following events will cause a reduction in equilibrium output in the goods market?
(A) a reduction in the marginal propensity to consume
(B) a decrease in taxes
(C) a decrease in autonomous consumption
(D) an increase in government spending



14. Suppose the consumption equation is represented by the following: $C = 150 + 0.9Y_D$. Given this information, the saving equation is:
(A) $S = 150 + 0.1Y_D$
(B) $S = -150 + 0.9Y_D$
(C) $S = -150 + 0.1Y_D$
(D) $S = 135 + 0.1Y_D$

$-150 + .1\,Y_D$

15. When a closed economy is in equilibrium, we know with certainty that
(A) $I = S + (G-T)$
(B) $I = S$
(C) $I = S + (T-G)$
(D) $G = T$ and $S = I$

$S = Y - C - T$

$S = C + I + G - T$

$S = I + (G-T)$ $\quad I = S + (T-G)$

16. After a monetary expansion, which of the following is a complete list of the variables that *must* increase?
(A) Consumption.
(B) Consumption and investment.
(C) Consumption, output and the interest rate.
(D) Consumption, output and investment.

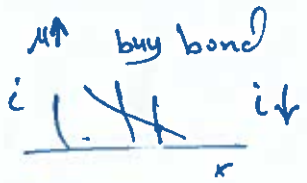
$Y\uparrow \quad I = I(Y, i)$

$i\downarrow$

$C\uparrow$

$I\uparrow$

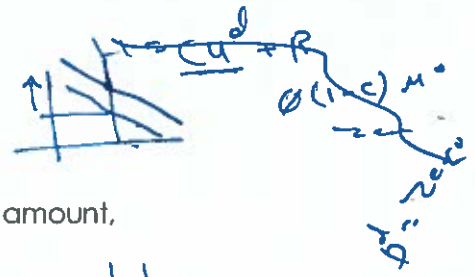
17. Which of the following generally occurs when a central bank pursues expansionary monetary policy?
(A) the central bank sells bonds and the interest rate increases
(B) the central bank sells bonds and the interest rate decreases
(C) the central bank purchases bonds and the interest rate increases
D (D) the central bank purchases bonds and the interest rate decreases



18. If individuals do not hold checkable deposits, we know that:
(A) Demand for central bank money equal the demand for currency ($H^d = CU^d$)
(B) Demand for money equal the demand for currency ($M^d = CU^d$)
(C) the money multiplier is 0
(D) demand for deposits is equal to the demand for money ($M^d = D^d$)

$C=1$ $D^d = (1-1)M^d$ $CU^d = M^d$

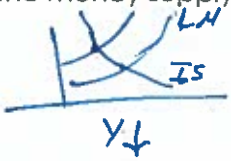
19. An increase in the interest rate will cause:
(A) A reduction in the supply of central bank money.
(B) A reduction in the demand for reserves.
(C) An increase in the demand for currency.
(D) All of the above



20. If government spending and taxes decrease by the same amount,
(A) The IS curve does not shift.
(B) The LM curve shifts downward.
(C) The IS curve shifts rightward.
D (D) The IS curve shift leftward.

21. Assume that investment does NOT depend on the interest rate. A reduction in the money supply will cause which of the following for this economy?
(A) an increase in investment
(B) no change in the interest rate
P (C) an increase in output
(D) a reduction in investment

$L(Y)$



22. Suppose the marginal propensity to consume equals 0.6 ($c_1 = 0.6$). Given this information, which of the following events will cause the largest reduction in output?
(A) T increases by 300
(B) Investment decreases by 250
C (C) G decreases by 300
(D) both A and C

450↓ 625

1-1 = zero

$R^d = \Phi(1-c)M^d$

$R^d = \Phi(1-c)M$ R^d = zero

$C=1$

$M^d = CU^d = CM^d = M^d$

$T^{new} = \frac{.6}{.4} = 1.5$

2.5

$H^d = CU^d + R^d$

$H^d = CU^d$

Section II: Short Answer Questions (45 points)

Question #1 (10 Points)

Suppose the demand for money M^d is given by the equation $\frac{M^d}{p} = Y(12.5 - 8i)$

Where P is the price level Y is real income and *i* is a nominal interest rate.

a. Suppose that Y = 200, and nominal money supply is 2,460. What is the equilibrium interest rate?

equilibrium at $\frac{M}{P} = \frac{M^d}{P}$

$2460 = Y(12.5 - 8i)$

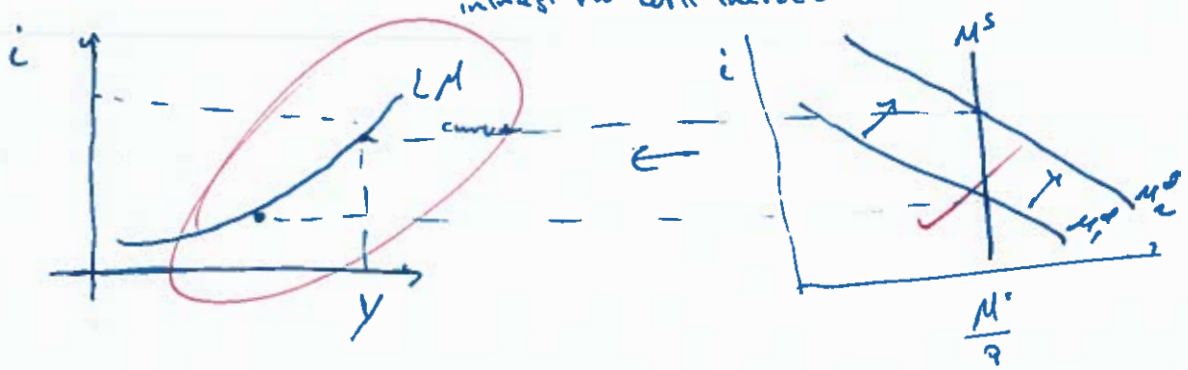
$\frac{2460}{200} = 12.5 - 8i$

$8i = 12.5 - 12.3$

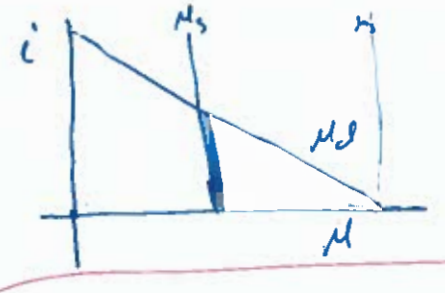
$i = .025$

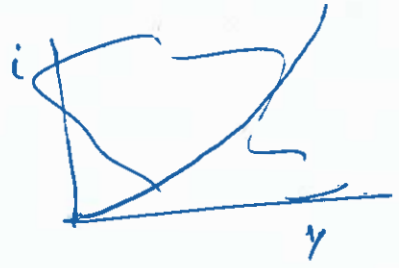
b. Show graphically what happen to the interest rate when real income increases.

interest rat will increase



c. What happens to the demand for money when the interest rate falls to zero? Illustrating the shape of the LM curve at a zero interest rate.





demand for money will increase as the i fall.

$\frac{M^d}{P} = Y(12.5 - zero)$

$\frac{M^d}{P} = Y * 12.5 = 200$

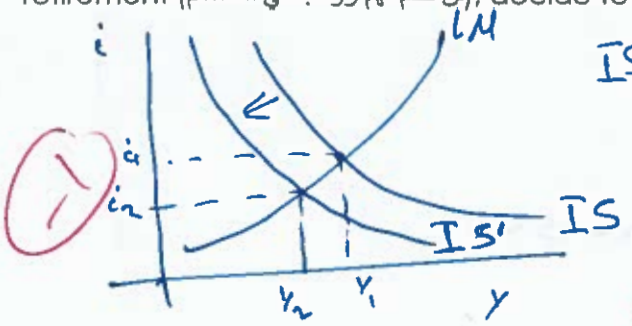
The LM curve will be (Vertical)

12/16

Question #2 (16 Points)

For each of the following, draw into the diagram provided how the curve or curves should shift in the IS-LM model of a closed economy with fixed prices, and explain what happen to interest rate (i), output (Y), and Investment (I)

a. Consumers, becoming fearful (خوف) that the government will not provide for them in their retirement (إن تقدم لهم رواتب في تقاعدهم), decide to save more out of their disposable incomes.



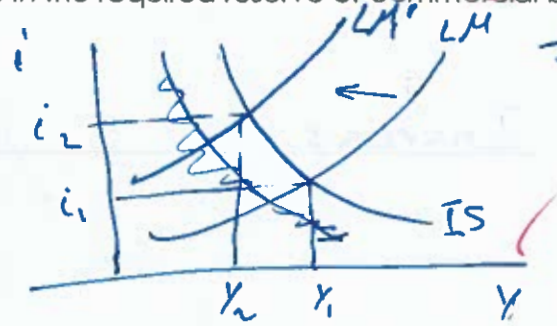
IS → IS'

i: decrease

Y: decrease

I: uncertain

b. An increase in the required reserve of commercial banks.



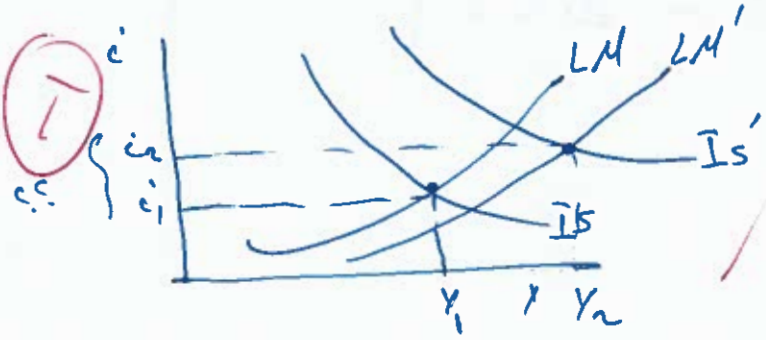
LM → LM' shift

i: increase

Y: decrease

I: decrease

c. An increase in government purchases financed by printing money.



LM downward increase

IS upward increase

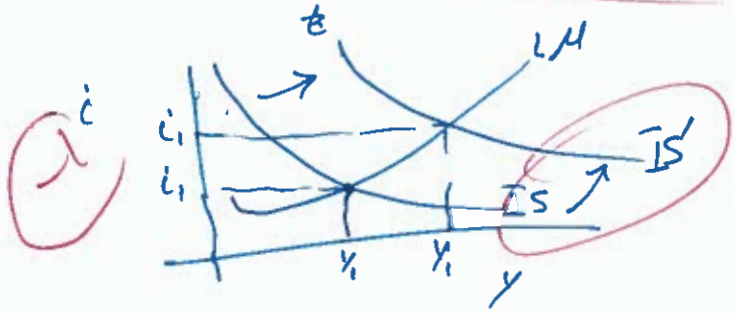
i: uncertain

Y: increase

I: uncertain

d. An increase in government purchases financed by increasing taxes by the same amount.

net effect will be increase in Z shift the IS curve to the right



Y: increase

i: increase

I: uncertain.

Question #3 (20 Points)

17/20

Consider an economy with the following components:

Consumption: $C = 30 + 0.75Y_D$	Taxes : $T = 20$
Investment : $I = 40 + 0.05Y - 400i$	Real money supply: $M^s/P = 148$
Government spending: $G = 45$	Real money demand: $M^d/P = 0.4Y - 500i$

a. Derive the IS and the LM relations.
b. Solve for equilibrium output and interest rate.
c. What is the equilibrium level of consumption, Investment, and of the Government's budget? Is the government running a deficit or a surplus?
d. Assume that G decreases to 33, at the same time money supply increase to 150. Describe the effects of a fiscal expansion and a monetary contraction on output (Y), Interest rate (i), and investment (I).

a) IS relation $Z = Y$

$Y = C + I + G$

$Y = 30 + .75Y - 15 + 40 + .05Y - 400i + 45$

$Y = .8Y - 400i + 100$

$Y = 500 - 2000i$ (1)

LM Relation $\rightarrow \frac{M}{P} = \frac{M^d}{P}$

$148 = .4Y - 500i$

$Y = 370 + 1250i$ (2)

b) $500 - 2000i = 370 + 1250i$

$130 = 3250i \Rightarrow i = .04$

$Y = 370 + 1250 * .04$

$Y = 420$

c) $C = 30 + .75(420 - 20)$

$C = 330$

$I = 40 + .05 * 420 - 400 * .04$

$I = 45$

Government budget $= T - G = 20 - 45 = -25 \Rightarrow$ running a deficit by 25

d)