



# **MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS**

**2023/2024 ACADEMIC YEAR**

**FIRST YEAR SECOND SEMESTER**

**SCHOOL OF BUSINESS AND ECONOMICS**

**MASTER OF SCIENCE IN ECONOMICS**

**COURSE CODE: ECO 8203**

**COURSE TITLE: MONETARY POLICY AND  
MANAGEMENT**

**DATE: 7/2/2024**

**TIME: 1430-1730 HRS**

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**INSTRUCTIONS TO CANDIDATES**

**ANSWER ONE AND ANY OTHER TWO QUESTIONS**

### QUESTION ONE

Consider an economy in which the money supply consists of both currency and deposits. The growth of monetary base, the growth of money supply, inflation, and expected inflation all are constant at 10% per year. Output and real interest are constant. Monetary data for this economy as of 1st January 2021 are as follows in billions shillings

Currency in circulation	200
Bank reserves	50
Monetary base	250
Deposits	600
Money supply	800
Money market mutual funds	80

- a) Using above information, derive money multipliers for M1+ and M2+. **4marks**
- b) Explain factors that determine these money multipliers. **4marks.**
- c) Explain what happens to M2+ when chequable deposits are converted into time deposits. **4marks**
- d) Calculate nominal value of seignorage over the year. **4marks**
- e) Suppose that deposits and banks reserves pay no interest and that banks lend deposits not held as reserves at the market rate of interest. Explain who pays the inflation tax and how much it is paid. **4marks**

### QUESTION TWO

The following extended classical economy.

AD  $Y=300+10(M/P)$

SRAS  $Y= \tilde{Y}+P-P_e$

Okun's Law  $(Y-\tilde{Y})/\tilde{Y}=2(U-\bar{u})$

Full employment level  $\tilde{Y}=500$

Natural rate of unemployment  $\bar{u} = 0.06$

a. Suppose that money supply

**8marks**

$M=1,000$  and the expected price level  $P_e = 50$

Find

i) Short run equilibrium of output

ii) The price level

iii) The unemployment level

iv) Long run equilibrium values of these three variables.

b. Now assume that unanticipated increase raise the money supply to  $M=1,200$ .

**7marks**

i) Find the new value of the three variables and of long run equilibrium.

ii) Explain whether the results are consistent with expectation-augmented Philip Curve

### QUESTION THREE

Suppose that central strictly followed a rule of keeping the real interest at 3% per year. That rate happens to be real interest consistent with the economy's initial general equilibrium.

a) Assume that the economy is hit by only money demand shocks. Under the central bank's rule. i) Explain how money supply will respond to money demand shocks.

ii) Will the rule make aggregate demand more stable or less stable than it would be if money supply were constant? **5marks**

b) Assume that the economy is hit by only IS shocks under the central's rule .

ii) Discuss how money supply money will behave.

**3marks**

ii) Will the central bank be able to follow its rule in the long run?

**3marks**

c) Assume the economy is hit by only by supply shocks (shocks to FE line). Repeat as b above.

**4marks**

#### QUESTION FOUR

To fight an ongoing 10% inflation, the government makes raising wages or prices illegal. However, the government continues to increase the money supply by 10% per year. The economy starts at full employment output, which remains constant.

a. Using the Keynesian AD-AS framework, show the effects of the government's policies on the economy. Assume that firms meet the demand at the fixed price level. **8marks**

b. After several years in which the controls have kept prices from rising the government declares victory over inflation and removes the controls. Explain what happens in the economy. **.7marks**

#### QUESTION FIVE

a) Franco Modigliani found the most important transmission mechanism of monetary policy involve consumer expenditure. Describe how at least this mechanism works. **5marks**

b) If the central bank of Kenya buys Kenyan shillings in the foreign exchange market but does not sterilize the interaction. **6 marks**

Explain the impact it will have on:

i) International reserves

ii) The money supply

iii) The exchange rate

c. Discuss main strategies for reducing expected inflation increasing rapidly.

**4marks**

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