MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS
2023/2024 ACADEMIC YEAR
FOURTH YEAR FIRST SEMESTER

SCHOOL OF BUSINESS AND ECONOMICS
BACHELOR OF SCIENCES IN FINANCIAL ECONOMICS), BACHELOR OF SCIENCES IN ECONOMICS AND STATISTICS, BACHELOR OF SCIENCES IN ECONOMICS, BACHELOR OF AGRICULTURAL ECONOMICS, AND BACHELOR OF ARTS IN AGRICULTURAL ECONOMICS

COURSE CODE: ECO 4105-1
COURSE TITLE: MACROECONOMIC POLICY ANALYSIS

DATE: 7/12/2023 **TIME: 1100-1300 HRS**

INSTRUCTIONS TO CANDIDATES

1. **Answer Question ONE and any other TWO questions**

QUESTION ONE (20 MARKS)

a) Horticulture and tea are the leading contributors to its GNP of Country XYZ. Assuming XYZ economy is closed (all output produced is consumed locally and there are no transfers abroad). Using the saving investment schedule, illustrate adjustment to equilibrium in a season where there is a production glut in the two sectors. Assume, further, that equilibrium holds such that $i + g = s + t$ and $i + g$ is independent of income (where i=real investment demand, g=real government expenditure, s=private savings, and t= real tax revenue. (6 marks)

b) The following equations describe a certain economy.

$C = 100 + 0.8Yd$	(Consumption function)
$I = 10 - 10r$	(Investment function)
$G = 10$	(Government purchases)
$T = 0.25$	(Tax rate)
$L = Y - 100r$	(Real money demand)
$M = 295$	(Real money supply)

Required:

i) IS and LM equations. (6 marks)

ii) r and y pairs at which the two markets are both in equilibrium. (4 marks)

c) In the context of Kenya, explain any 2 factors that are likely to affect the interest rates charged by commercial banks. (4 marks)

QUESTION TWO (15 MARKS)

a) Use the individual work-leisure model to derive the labor supply curve. Give an account for the inverse relationship between the wage rate paid by firms and the quantity of labor supplied. (9 marks)

b) Differentiate between the following terms:

i) Consumer price index and whole price index (2 marks)

ii) Income approach and factors approach to GNP determination (2 marks)

iii) Potential and actual output (2 marks)

QUESTION THREE (15 MARKS)

a) The product and money market equations of a hypothetical economy are given as:

Product market: $y = c(y - t(y)) + i(r) + g$

Money market: $\frac{\bar{m}}{P} = m = l(r) + k(y)$

Where y is the economy's real output, c is the real consumption expenditure, i is the real investment expenditure, and r is the interest rate, and g is the real government expenditure. On the money market equation, m is the real money stock, l and k are the speculative and transitionary demand for money respectively.

Derive the monetary policy multiplier and interpret it. (6 marks)

b) Kenya's economy has over the past one year been experiencing a general increase in the prices of goods and services partly due to the 2021-2022 drought and partly due to the Ukraine-Russia war. Use a four-quadrant diagram to demonstrate the monetary policy consequences of the rise in these prices on the economy's equilibrium interest rate (r) and income (y). (9 marks)

QUESTION FOUR (15 MARKS)

a) A fiscal policy multiplier is given as $\frac{dy}{dg} = \frac{1}{1-c'(1-t')+\frac{i'k'}{l'}}$, where y is equilibrium income, g is equilibrium government expenditure, c' is the marginal propensity to consume, t' is the slope of the tax function. i' is the slope of the investment function while k' and l' are the slopes of the transitionary and speculative money demand functions respectively. (6 marks)

Under different assumptions of the value of i' ($i' = 0$; $i' = -\infty$; and $0 > i' > -\infty$), use diagrams to demonstrate the effectiveness of fiscal policy.

b) In the context of Kenya, discuss any three (3) limitations of fiscal policy in macroeconomic policy management. (9 marks)

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