MAASAI MARA UNIVERSITY

REGULAR UNIVERSITY EXAMINATIONS
2018/2019 ACADEMIC YEAR
SECOND YEAR SECOND SEMESTER

SCHOOL OF BUSINESS & ECONOMICS
BACHELOR OF SCIENCE ECONOMICS
BACHELOR OF SCIENCE FINANCIAL ECONOMICS
BACHELOR OF SCIENCE ECONOMICS & STATISTICS
BACHELOR OF SCIENCE IN AGRICULTURAL & RESOURCE ECONOMICS

COURSE CODE: ECO 2203
COURSE TITLE: INTERMEDIATE MACROECONOMICS
INSTRUCTIONS TO CANDIDATES

Answer Question **ONE** and any other **THREE** questions

This paper consists of 4 printed pages. Please turn over.
QUESTION ONE

(a) Distinguish between the following
(i) Gross Domestic Product and Gross National Product.  2mks
(ii) Consumer Price Index and Producer Price Index.  2mks
(iii) GDP deflator and, consumer and producer price indexes.  2mks
(iv) Depreciation and devaluation.  2mks

(b) Suppose the government increases spending from G to \( \tilde{G} \) while simultaneously raising taxes in such a way that, at the initial level of output, the budget remains balanced.
(i) Show the effect of this change on the aggregate demand schedule.  2mks
(ii) How does this affect output and the price level in the Keynesian case?  2mks
(iii) How does this affect output and the price level in the classical case?  2mks

(c) Suppose we have an economy described by the following functions: \( C=50+0.8Y_d \), \( \bar{I}=70 \), \( \bar{G}=200 \), TR=100, \( t=0.20 \).
(i) Calculate the equilibrium level of income and the multiplier in this model.  3mks
(ii) Calculate the budget surplus.  1mk
(iii) Suppose that \( t \) increases to 0.25. What is the new equilibrium income and multiplier?  1mk
(d) What elements of neoclassical and endogenous growth models can help explain the remarkable growth of the group of countries known as the Asian Tigers? 

6mks

QUESTION TWO

(a) Consider the following production function: 
\[ Y = K^{0.5}(AN)^{0.5} \]
where both the population and the pool of labor are growing at a rate \( n = 0.07 \), the capital stock is depreciating at a rate \( d = 0.03 \), and \( A \) is normalized to 1.

(i) What are capital’s and labor’s shares of income? 

2mks

(ii) Find the steady-state values of \( k \) and \( y \) when \( s = 0.20 \).

3mks

(iii) What rate is per capita output growing at the steady state?

2mks

(iv) Given total factor productivity is increasing at a rate of 2 percent per year \( (g = 0.02) \), what is the rate of total output growth?

2mks

(b) The following equations describe an economy being measured in billions and \( I \) as a 5 percent interest rate. 
\[ C = 0.8(1-t)Y, \quad t = 0.25, \quad I = 900 - 50i, \quad \bar{G} = 800, \quad L = 0.25Y - 62.5i, \quad \bar{M}/\bar{P} = 500. \]

(i) What is the equation that describes the IS curve?

2mks

(ii) What is the equation that describes the LM curve?

2mks
(iii) By how much does a change in government spending affect the equilibrium interest rate.
2mks

QUESTION THREE

(a) Consider two alternative programs for contraction. One is the removal of an investment subsidy; the other is a rise in income tax rate. Use the IS-LM model and the investment schedule, to discuss the impact of these alternative policies on income, interest rates, and investment. 4mks

(b) According to the Mundell-Fleming model, when exchange rates are fixed and capital is perfectly mobile, will fiscal or monetary policy be more successful? Explain. 4mks

(c) Explain how the ability of inflation expectations to shift the Philips curve helps the economy to adjust, automatically, to aggregate supply and demand shocks. 4mks

(d) How does the Keynesian aggregate supply curve differ from the classical one? 3mks

QUESTION FOUR

(i) Explain the effect of increased government spending on private spending under the classical case. 4mks

(ii) Given that the economy is not in a liquidity trap or in the classical case, explain the monetary expansion effect on equilibrium and interest rates. 4mks
(iii) The central bank conducts monetary policy mainly through open market operations. Illustrate how open market operations work?

4mks

(iv) Show from the national income accounting that an increase in taxes (while transfers remain constant) must imply a change in net exports, government purchases, or the saving-investment balance.

3mks

QUESTION FIVE

(i) Analyze the effects of a reduction in the nominal money stock on the price level, on output, and on the real money stock when the aggregate supply curve is positively sloped and wages adjust slowly over time.

4mks

(ii) It is sometimes said that a central bank is a necessary element for a balance-of-payments deficit. What is the explanation for this argument?

4mks

(iii) Why do we call a mechanism such as proportional income taxes automatic stabilizers? Explain proportional income taxes effect on output fluctuations.

3mks

(iv) Describe a situation that could produce stagflation in an economy.

4mks

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