



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**THIRD YEAR SECOND SEMESTER EXAMINATION
FOR THE DEGREE OF BACHELOR OF ARTS (ECONOMIC)
& BACHELOR OF SCIENCE IN MATHEMATICS AND
ECONOMICS WITH INFORMATION TECHNOLOGY**

MAIN & CITY CAMPUSES

AEC 306: ADVANCED MACROECONOMICS

Date: 9th June, 2017

Time: 8.30 - 11.30am

INSTRUCTIONS:

- Answer Question ONE and any TWO
- Question one carries 25 marks and the rest 20 marks each

Question One (Compulsory)

a) Discuss the objectives and general features of a National Economic Accounting system (8 marks)

b) The Kenyan system follows the UN definition; and also closely resembles the structure of the UN system. Discuss the five accounts of the Kenyan system (5 marks)

c) Consider the monetary and expenditure sectors together under price regime.

Specification of the simultaneous equilibrium is given as:

Expenditure sector; $Y = C_0 + C(Y - T, r) + I_0 + I(Y, r) + G_0$

Monetary sector; $L_0 + L(Y, r) = M_0$

i) Express the model in the differential matrix version

ii) Provide a solution for National income (Y) and interest rate (r) equilibrium

iii) Comparative static prediction :

Impact of exogenous spending (G_0) on income and interest rate

Impact of taxation (T_0) on Income and interest rate

Impact of money supply (M_0) on Income and interest

iv) Provide a Balanced Budget Multiplier for the two sectors (12 marks)

Question Two

a) Discuss the problems that accrue to a country for running a persistent current account deficit and surplus (10 marks)

b) Discuss policy measures for dealing with balance of payment deficits (5 marks)

Question Three

Given a three sector economy together without foreign repercussions

1. Expenditure sector; $Y = C_0 + C(Y - T, r) + I_0 + I(Y, r) + G_0 + X_0 - H_0 - H(Y)$
2. Monetary sector; $L_0 + L(Y, r) = P^{-1}M_0$
3. External sector; $Z = X_0 - H_0 - H(Y) + K(r)$

Major assumptions:

- Production and employment sector is kept out
- Price level (P) is variable but exogenously determined (i.e. by factors outside these three sectors)

Required;

- a) Determine the $d\bar{Y}$, $d\bar{r}$, $d\bar{Z}$ equations
- b) Determine the comparative static predictions;
Impact on equilibrium income
Impact on the interest rate
- c) The effect on the balance of payments (15 marks)

Question Four

- a) Using an illustration and on separate graphs, discuss the effect of monetary and fiscal policy on the IS-LM Model (8 marks)
- b) You are given the following information about the commodity and Money markets of a closed economy without government intervention.

The commodity market

Consumption function $C = 50 + 2/5Y$
Investment function $I = 790 - 21r$

The Money Market

Precautionary and Transactions demand for money $M_{DT} = 1/6 Y$
Speculative demand for money $M_{DS} = 1200 - 18r$
Money supply $M_S = 1250$

Required:

- i) Determine the equilibrium levels of income and interest rate for this economy. (4 marks)
- ii) Using a well labeled diagram, illustrate the equilibrium condition in part (i) above. (2 marks)

Question Five

Consider a closed economy with an economically active government

Assumption: i) No external dealings

ii) No monetary repercussions

But $G \neq 0, T \neq 0$

Model specification

$$Y = C + I + G_0$$

$$C = C_0 + C(Y^d, r) \text{ but } Y^d = Y - T$$

$$I = I_0 + I(Y, r)$$

$$T = T_0 + T(Y)$$

- i) Express the model in the differential matrix version
- ii) Provide a solution for National income equilibrium
- iii) Comparative Static prediction;
 - a) How does exogenous spending affect \bar{Y} ?
 - b) How does exogenous taxation affect \bar{Y} ?
- iv) Explain the impact of government economic activity
- v) Provide the IS equation (15 marks)

Question Six

- a) Explain what you understand by the term “comparative static” as used in macroeconomics, outlining its usefulness and limitations (5 marks)
- b) Given $Y = C + I_0 + G_0 + X_0 - Z$ $T = T_0 + tY$
 $C = C_0 + bYd$ $Z = Z_0 + zYd$

where all the independent variables are positive and $0 < b, z, t < 1$

- i) Determine the effect on the equilibrium level of income of a 1-unit change in; exports, autonomous imports and autonomous taxation.
- ii) Determine the effect on equilibrium level of income of a 1-unit change in the Marginal propensity to import z (10 marks)

End