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(Knowledge for Development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR
THIRD YEAR SECOND SEMESTER
MAIN EXAMINATION

FOR THE DEGREE OF BACHELOR OF EDUCATION ARTS

COURSE CODE: ECO205

COURSE TITLE: INTERMEDIATE MACROECONOMICS

DATE: 20TH APRIL, 2023 TIME: 9.00AM – 11.00AM

INSTRUCTIONS TO CANDIDATES

1. Answer a total of **three** questions; question **one** and any other **two** questions.
2. Question **one** carries **30 marks** and each of the other two questions carry **20** marks each.

TIME: 2 Hours

KIBU observes ZERO tolerance to examination cheating

This Paper Consists of 3 Printed Pages. Please Turn Over.

SECTION A (COMPULSORY)

QUESTION ONE (COMPULSORY)

a) A three sector economy expenditure and monetary models are specified as $Y = c_0 + C(Y^d, r) + I_0 + I(Y, r) + G_0$ and $L = L_0 + L(Y, r) = M_0$ respectively. Examine the respective comparative static predictions and explain their respective consequences for the economy. [9 marks]

b) Given the data below for product and money market;

$$C = 100 + 0.75(Y - T)$$

$$I = 200 - 2000i$$

$$G = 100$$

$$T = 0.2Y$$

$$M_t = 0.5Y$$

$$M_{sp} = 100 - 2500i$$

$$M_s = 200$$

Calculate;

- i. Equilibrium level of income [5marks]
- ii. Interest rate [3marks]

c) Let the national income model be

$$Y = C + I + G.$$

$$C = a + b(Y - T) \quad a > 0 \quad 0 < b < 1$$

$$G = gy.$$

Where Y is national income, C is (planned) consumption expenditure, I is the investment expenditure, G is government expenditure and T is taxes.

- i. Solve for Y^* , C^* and G^* and state what restriction is required on the parameters for a solution to exist. [6marks]
- ii. Give the economic meaning of the parameter g . [2marks]
- iii. Find the tax multiplier and the investment multiplier and give the economic intuition behind their signs [3marks]
- iv. Show that an increase in tax has a negative impact on consumption. [2marks]

SECTION B

QUESTION TWO

(a) Differentiate between the following concepts

- (i) Endogenous and exogenous variables [2 marks]
- (ii) Stock and flow variables [2 marks]
- (iii) General and partial equilibrium [2 marks]

b) Use an aggregate supply and aggregate demand (ADAS) diagram to show what will happen in the short run if there is a widespread fear by consumers of an impending economic depression. [4 marks]

c) Indicate precisely when a rise in the money supply will boost output in each of the following models. Explain your answer and provide an appropriate graph for each model.

- (i). Closed IS-LM model [2marks]
- (ii). Open IS-LM model [3marks]

d) Suppose that a closed economy with an economically active government has the specification $Y = C + I + G_0$, $C = c_0 + c(Y^d, r)$, $Y^d = Y - T$, $I = I_0 + I(Y, r)$, $T = T_0 + T(Y)$ where Y -income, C -consumption, G -government expenditure, Y^d -disposable income, T -tax, r -interest rate. Examine the effect of taxation on equilibrium income

[4 marks]

QUESTION THREE

a) What is meant by the downward rigidity of money wage rate? Explain why money wages are supposed to be rigid downward and not upward [6 marks]

b) Highlight the process of building and testing an economic model [5 marks]

c) Given the following functions of the economy;

$$C = 100 + 0.8Y_d - \text{Consumption function}$$

$$I = 10 - 10r - \text{Investment function}$$

$$L = Y - 100r - \text{Real money demand}$$

$$G = 10 - \text{Government purchases}$$

$$T = 0.25 - \text{Tax rate}$$

$$MS = 295 - \text{Real money supply}$$

Suppose equilibrium income increases by 200, by how much must real money stock increase for the new level of income to be in equilibrium [9 Marks]

QUESTION FOUR

a) Assume an economy has the following models with figures measured in billions of shillings

$$C = 50 + 0.8Y_d$$

$$T = 0.25Y$$

$$M = 5 + 0.1Y$$

$$I_0 = 100$$

$$G_0 = 50$$

$$X_0 = 10$$

$$TR_0 = 25$$

- i) Find the national income at equilibrium, consumption at equilibrium, imports and taxes at equilibrium [7 marks]
- ii) Determine the imports multiplier [3 marks]
- iii) How much additional government expenditure will be required to increase equilibrium income by 50 billion shillings? [3 marks]
- iv) At equilibrium, does the economy have a trade deficit or trade surplus and by how much? [2 marks]
- b) Using graphical approach, derive the product market equilibrium schedule (IS) and the money market equilibrium schedule (LM) in an economy with taxes as a function of income [5marks]

QUESTION FIVE

- a) State and explain the various factors that result into the shifting of the IS curve [6marks]
- b) During inflationary periods, the government is determined to use the fiscal and monetary policy tools to manage the aggregate demand. Clearly demonstrate how this mechanism operates [14 Marks]