MACHAKOS UNIVERSITY

University Examinations for 2020/2021 Academic Year

SCHOOL OF BUSINESS AND ECONOMICS

DEPARTMENT OF ECONOMICS

THIRD YEAR SPECIAL/SUPPLEMENTARY EXAMINATION FOR

BACHELOR OF ECONOMICS

EET 301: MACROECONOMIC THEORY III

DATE: 24/3/2021   **TIME: 2.00-4.00 PM**

INSTRUCTIONS:

    (i)   **Answer question one (Compulsory) and any other two questions**
    (ii)   **Do not write on the question paper**
    (iii)   **Show your workings clearly**

QUESTION ONE (COMPULSORY) (30 MARKS)

a)   Distinguish between the following concepts as used in macroeconomics: (12 marks)

        i.   Potential GDP and actual GDP

        ii.   Phillips Curve and Okun's Law

        iii.   Recession and Recoveries

        iv.   Fiscal Policy Multiplier and Monetary Policy Multiplier

b)   The government of Kenya through treasury has decided to increase government spending in order to increase the pace of economic growth. Use the four-quadrant diagram to analyze the effects of this measure on income and interest rates.   (8 marks)

c)   Given the following equations:

$Y = C + I + G + X$

$C = 100 + 0.9Y^d$ (Consumption function)

$I = 200 - 500r$ (Investment function)

$M = 0.8Y - 2000r$ (Real money demand)

$X = 100 - 0.12Y - 500r$ (Net export)

G = 200   (Government purchases)

T = 0.2   (Tax rate)

L = 800   (Real money supply)

Required

Calculate the monetary and fiscal policy multipliers and interpret them.   (10 marks)

QUESTION TWO (20 MARKS)

a)   Proof that a profit maximizer in a perfectly competitive market will employ labour up to the point where the value of marginal product of labour equals the price of labour . Use the information to derive the curve for demand for labour   (8 marks)

b)   Compute the following multipliers assuming that tax is an increasing function of income.

         i.   Investment Multiplier   (3 marks)

         ii.   Balanced Budget Multiplier   (3 marks)

c)   Present the labour supply curve graphically and explain why individual Labour supply curve is backward bending?   (6 marks)

QUESTION THREE (20 MARKS)

a)   The IS curve represents equilibrium in the product market. Derive the IS curve using the four-quadrant diagram.   (5 marks)

b)   Use the four-quadrant diagram to analyze the effects of price level increase on income and interest rates.   (7 marks)

c)   Given the following model:

             $C = 100 + 0.8Y^d$ (Consumption function)

             $I = 10 - 10r$ (Investment function)

             $G = 10$ (Government purchases)

             $T = 0.25$ (Tax rate)

             $L = Y-100r$ (Real money demand)

             $\bar{m} = 295$ (Real money supply)

Required:

i. Compute the slope of the IS Curve and interpret it (4 marks)

ii. Compute the slope of the LM Curve and interpret it (4 marks)

QUESTION FOUR (20 MARKS)

a) Suppose for instance, the economy is experiencing interest rates that are too low for equilibrium in the economy. Explain how a policy mix can be used to correct the situation in this economy. (7 marks)

b) Demonstrate graphically the concept of 'paradox of thrift' (6 marks)

c) Derive and draw the Labour Supply curve for a Monopolist and explain how it differs from the labour supply curve for a perfectly competitive firm. (7 marks)

QUESTION FIVE (20 MARKS)

a) Analyze using the four quadrant diagram the effect of a contractionary monetary policy on income and interest rates (7 marks)

b) This major issue in an economy is concerned with determining how big the GDP is. To determine the size of an economy's GDP we make use of a set of analytical assumptions underlying national income accounting. Clearly explain these assumptions. (8 marks)

c) Explain how the slope of the IS curve affects the effectiveness of fiscal policy (5 marks)