COURSE CODE: BCM 300

Intermediate Macroeconomics Theory

MAIN EXAMS 2021

Instructions: answer question one and any other three (TOTAL 40 MARKS)

1. (a) Differentiate between two macro-economic analysis used to analyze a particular economy **(4Marks)**

   (b) Distinguish between micro and macroeconomics giving relevant example **(2 Marks)**

   (c) Find equilibrium income using the information below **(4Marks)**

   Suppose C=200+1.6Y^d

   T=20+0.02Y

   I=400

   C=1000

2. You are given the following

C=200+1.6Y^d

T=40+0.2Y

G=40

I=200-20r

X=20

M=20+0.02Y

(a) Find the IS and LM and derive their expressions and interpret them **(4Marks)**
(b) Derive the equilibrium income and interest **(3Marks)**
(c) Calculate the fiscal and monetary policy multipliers and interpret them **(3Marks)**

3. (a) Briefly discuss any four goals and aims of the macroeconomic policy **(4 Marks)**

(b) Describe any three methods that can be used to control inflation in any country **(6Marks)**

4. **(a)** Given the following information, C=50+0.7Y^d, T=52, G=20, I=100, X=10, M=10+0.01Y you are required to calculate,

i) Ye **(2Marks)**

ii) National income multiplier**(2Marks)**

iii) Investment multiplier **(2Marks)**

iv) Government expenditure multiplier **(2Marks)**

v) Export multiplier **(2Marks)**

vi) Tax multiplier **(2Marks)**

QUESTION FIVE

a) Write short notes amount the following

(i) Aggregate Demand (**1Mark)**

(ii) Deflationary Gap (**1Mark)**

(iii) Aggregate Supply Curve (**1Mark)**

(iv) Inflationary Gap **(1Mark)**

b) Explain briefly the various components of Gross Domestic Product **(4Marks)**

c) State one assumption of the Mundell- Fleming model **(1mark)**

Marking Scheme

1. (a) Macro-economic analysis used to analyze a particular economy
   Static Macroeconomic analysis
   Comparative macroeconomic analysis
   Dynamic macroeconomic analysis

(b) Distinguish between micro and macroeconomics giving relevant example

Microeconomics is the study economic actions of individual and small groups of individuals e.g. income of an individual or consumption patterns of a household. Macroeconomics is the study of the economy as a whole e.g. general price level.

(c) Find equilibrium income using the information below **(4Marks)**

Suppose C=200+1.6Y^d

T=20+0.02Y

I=400

G=1000

Y=C+I+G

Y=200+1.6Y^d+400+1000

Y=1600+1.6Y^d

But Y^d= Y-T

Y=1600+1.6(Y-20+0.02Y)

Y=1600+1.6Y-32+1.62Y

Y=1568-0.02Y

Y+0.02Y=1568

Y=1537.25

2. You are given the following
   C=50+0.7Y^d
   T=20+0.1Y
   I=100-10r
   G=20
   X=10
   M=10+0.01Y
   L=Md=10+0.2Y-10r

Ms=5000

(d) Find the IS and LM and derive their expressions and interpret them **(6Marks)**

Y=C+I+G+X-M

Y=50+0.7Y^d+100-10r+20+10-(10+0.01Y)

Y=50+0.7(Y-T)+100-10r+20+10-10-0.01Y

Y=156+0.62Y-10r

Y-0.62Y=156-10r

Y=410.52-26.316r

Y=410.5-26r(IS Curve)

At equilibrium

Md=Ms

10+0.2Y-10r=5000

0.2Y-10r=4990

0.2Y=4990+10r

Y=24950+50r (LM Curve)

(e) Derive the equilibrium income and interest **(4Marks)**

Y=410.5-26r=(IS Curve)

Y=24950+50r (LM Curve)

LM=IS

24950+50r=410.5-26r

2453.5=-76r

R=-322.89

Ye=24950+50r

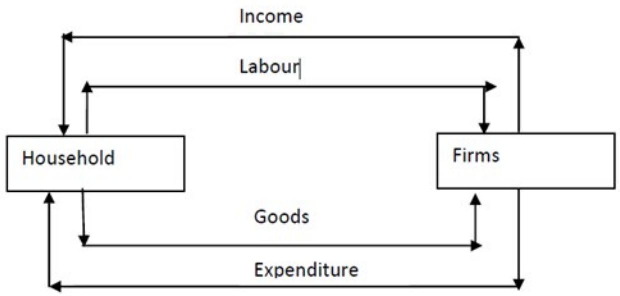
Ye=8805.5

Ie=100-10r

Ie=100-10(-322.89)

Ie=3328.9

(f) Discuss the circular flow of income giving relevant examples **(5Marks)**



3. (a) Discuss any four goals and aims of the macroeconomic policy **(8 Marks)**
    - **Estimate GNP**
    - **Predicting the impact of endogenous variables**
    - **Study the relationship between aggregate macroeconomic variables**
    - **Study of the nature and size of the material welfare of the society**

(c) Describe any three methods that can be used to control inflation in any country **(6Marks)**
- Monetary policy
- Fiscal policy
- Use of price control and rationing

(d) What is an inflationary Gap **(1Mark)**

4. **(a)** Given the following information, C=50+0.7Y^d, T=52, G=20, I=100, X=10, M=10+0.01Y you are required to calculate,

Y=C+I+G+X-M
Y=50+0.7Y^d+100+20+10-(10+0.01Y)
But Y^d=Y-T
Y=50+0.7(Y-52)+130-10-0.01Y
Y=180+0.7Y-36.4-10-0.01Y
Y=133.6+0.69Y
0.31Y=133.6
Ye=430.96

Y=C+I+G+X-M
Y=50+0.7Y^d+I+G+X-(10+0.01Y)
Y=50+0.7(Y-T)+I+G+X-10-0.01Y
Y=50+0.7Y-0.7T+I+G+X-10-0.1Y
Y-0.7Y+0.1Y=50-10-0.7T+I+G+X
0.4Y=40-0.7T+I+G+X
Y=$\frac{1}{0.4}$(40-0.7T+I+G+X)
Investment multiplier 1/0.4x1=2.5
Government expenditure multiplier =1/0.4x1=2.5
Export Multiplier=2.5
Tax multiplier= 1/0.4x-0.7=-1.75

i) Ye **(2Marks)**
ii) Investment multiplier **(2Marks)**
iii) Government expenditure multiplier **(2Marks)**
iv) Export multiplier **(2Marks)**
v) Tax multiplier **(2Marks)**

(b) Write short notes amount the following

(i) Aggregate Demand (**1Mark): total demand for goods and services at any given price level in a given period**

(ii) Deflationary Gap (**1Mark): a deficit in total disposable income relative to the current value of goods produced that is sufficient to cause a decline in prices and a lowering of production**

(iii) Aggregate Supply Curve (**1Mark): he total quantity of output**

QUESTION FIVE

The components of Gross Domestic Product:
The National income accounts divide GDP into four broad categories of spending.
Consumption: Consists of the goods services bought by households. It is divided into three subcategories: non-durable goods, durable goods and services.

Investment: Consists of goods bought for future use.

Government Purchases: are the goods and services bought by the state, and local governments. This includes such items as military equipment, highways, and the service that government workers provide.

Net exports: Takes into account trade with other countries. Net exports are the value of goods and services exported to other countries minus the value of goods and services that foreigners provide us. Net exports represent the net expenditure from aboard on our goods and services, which provide income for domestic producers. In other words it is exports (X) minus imports (M).

Mundell- Fleming model
The model assumes that the economy being studied is a small open economy with perfect capital mobility. That is, the economy can borrow or lend as much as it wants in the world interest rate.