NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCE AND EDUCATION

DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE

QUALIFICATION : BACHELOR OF ECONOMICS	
QUALIFICATION CODE: 07BECO	**LEVEL:** 7
COURSE CODE: IMA612S	**COURSE NAME**: INTERMEDIATE MACROECONOMICS
SESSION: NOVEMBER 2024	**PAPER:** THEORY
DURATION: 3 HOURS	**MARKS: 100**

FIRST OPPORTUNITY QUESTION PAPER	
EXAMINER(S)	MR. P. NANGULA
MODERATOR	Ms. N N Shitenga

INSTRUCTIONS
1. Answer **ALL** questions. 2. Number your answers in accordance with the question paper. 3. Write clearly and legibly

PERMISSIBLE MATERIALS

1. Pen
2. Ruler
3. Calculator

THIS QUESTION PAPER CONSISTS OF _3_ PAGES (Including this front page)

QUESTION ONE **[25 MARKS]**

a) Use relevant examples to explain the following concepts: [10 marks]

i. Working age population [3 marks]

ii. Labour force [3 marks]

iii. Unemployment rate [4 marks]

b) Use the information in the table to answer part a) to d) below: [15 marks]

Factor cost =N$1500 Production taxes = N$800.00 Production subsidy = N$550.00 Product taxes = N$650.00 Product subsidy = N$450.00 Sum of all GVA at factor cost =N$2000.00

a) Basic price [4 marks]

b) Market price [3 marks]

c) GDP at Factor Cost [3 mark]

d) GDP at Market Price [5 marks]

QUESTION TWO **[25 MARKS]**

A country with only two goods (good A and good B). The quantity of output and price are provided in the table below.

	2015		2016		2017	
	Price	Output	Price	Output	Price	Output
Good A	N$150.00	780	N$167.00	799	N$179.00	810
Good B	N$367.00	1500	N$398.00	1580	N$435.00	1687

a) Compute nominal GDP in each year. [6 marks]

b) Compute real GDP in each year using 2015 as the base year. [6 marks]

c) Compute GDP deflator for each year. [6 marks]

d) Use GDP deflator to compute the inflation rate from 2015 to 2016, and from 2016 to 2017. [4 marks]

e) Mention two possible ways to increase GDP. [3 marks]

QUESTION THREE **[25 MARKS]**

Consider a small open economy that is described by the following information: Tax =0.2Y; Investment = 1500; consumption =200 + 0.6Yd; Export is 1500; import = 150+0.1Y; Government spending = 900.

a) Calculate equilibrium national income. [10 marks]

b) Calculate consumption level, tax level and import level at equilibrium national income. [6 marks]

c) If government want to increase equilibrium national income by N$100.00 and they can only achieve this by increasing its spending, by how much government must increase it spending to achieve that objective? [5 marks]

d) Using the knowledge of multiplier effect, how do you conclude that government is running a balance budget? [4 marks]

QUESTION FOUR **[25 MARKS]**

a) Demand function for real money balance is L(y, r) = 150 – 10r, where r is the interest rate in percent. The money supply is N$1000 and the price level is N$10.

i) Graph the supply and demand for real money balances. [6 marks]

ii) What is the equilibrium interest rate in the money market? [3 marks]

iii) Assume that the price level is fixed. What happens to the equilibrium interest rate in the money market if the supply of money is reduced from N$1000 to N$800?[6 marks]

b) Consider the following short-run model of closed economy where C=10+0.9Yd; I = 5-5r; G = T= 100; money supply 1600 and price is 10; L(y,r) = Y- r

i) Derive IS and LM equation using information above [8 marks]

ii) Draw IS and LM curve. [2 marks]

All the Best

93

NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCE AND EDUCATION

DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE

QUALIFICATION : BACHELOR OF ECONOMICS	
QUALIFICATION CODE: 07BECO	**LEVEL:** 7
COURSE CODE: IMA612S	**COURSE NAME:** INTERMEDIATE MACROECONOMICS
SESSION: NOVEMBER 2024	**PAPER:** THEORY
DURATION: 3 HOURS	**MARKS: 100**

FIRST OPPORTUNITY MEMORANDUM	
EXAMINER(S)	MR. P. NANGULA
MODERATOR	MS. N N Shitenga

INSTRUCTIONS
1. Answer **ALL** questions. 2. Number your answers in accordance with the question paper. 3. Write clearly and legibly

PERMISSIBLE MATERIALS

1. Pen
2. Ruler
3. Calculator

THIS QUESTION PAPER CONSISTS OF _4_ PAGES (Including this front page)

QUESTION ONE **[25 MARKS]**

a) Use relevant examples to explain the following concepts: [10 marks]

i. Working age population [3 marks]

The working age population is defined as those aged 15 to 64. This indicator measures the share of the working age population in total population.

ii. Labour force [3 marks]

The labor force, or workforce, is the total number of people within a given population who are currently employed plus the number of people who are unemployed and actively seeking work.

iii. Unemployment rate [4 marks]

The unemployment rate measures the share of workers in the labor force who do not currently have a job but are actively looking for work. People who have not looked for work in the past four weeks are not included in this measure. It is important to keep in mind that the rate measures the percent of unemployed job seekers in the labor force—the sum of employed and unemployed persons—and not the entire population.

b) Use the information in the table to answer part a) to d) below: [15 marks]

Factor cost =N$1500 Production taxes = N$800.00 Production subsidy = N$550.00 Product taxes = N$650.00 Product subsidy = N$450.00 Sum of all GVA at factor cost =N$2000.00

a) Basic price [4 marks]

Basic price = 1500 + 800 – 550 = 1750

b) Market price [3 marks]

Market price =1750 +650 -450 = 1950

c) GDP at Factor Cost [3 mark]

GDP at factor cost = 2000

d) GDP at Market Price [5 marks]

GDP at Market Price = 2000+ 800+650-550-450 = 2450

QUESTION TWO **[25 MARKS]**

A country with only two goods (good A and good B). The quantity of output and price are provided in the table below.

	2015		2016		2017	
	Price	Output	Price	Output	Price	Output
Good A	N$150.00	780	N$167.00	799	N$179.00	810
Good B	N$367.00	1500	N$398.00	1580	N$435.00	1687

a) Compute nominal GDP in each year. [6 marks]

Nominal GDP 2019 = 150 x 780 + 367 x 1500 = 667,500

Nominal GDP 2020 = 167 x 799 + 398 x 1580 = 762,273

Nominal GDP 2021 = 179 x 810 + 435 x 1687 = 878,835

b) Compute real GDP in each year using 2019 as the base year. [6 marks]

Real GDP 2015 = 667500 *[2 marks]*
Real GDP 2016 = 150 x 799 + 367 x 1580 = 699,710 *[2 marks]*
Real GDP 2017 = 150 x810 +367 x 1687 = 740,629 *[2 marks]*

c) Compute GDP deflator for each year. [6 marks]
GDP deflator 2015 = 100 *[2 marks]*
GDP deflator 2016 = 762273/699710 x 100 = 108.94 *[2 marks]*
GDP deflator 2017 = 878835/740629 x100 = 118.66 *[2 marks]*

d) Use GDP deflator to compute the inflation rate from 2015 to 2016, and from 2016 to 2017. [4 marks]
Inflation rate (2015 – 2016) = 8.94% *[2 marks]*
Inflation rate (2016 – 2017) = 8.92 *[2 marks]*

e) Mention two possible ways to increase GDP. [3 marks]
Increases in general prices
Increases in production

QUESTION THREE **[25 MARKS]**

Consider a small open economy that is described by the following information: Tax =0.2Y; Investment = 1500; consumption =200 + 0.6Yd; Export is 1500; import = 150+0.1Y; Government spending = 900.

a) Calculate equilibrium national income. [10 marks]
$Y = 200 + 0.6Y - 0.6(.2Y)+1500+900+ 1500-[150+0.1Y]$
$0.62Y = 3950$
$Y = 6370.96$

b) Calculate consumption level, tax level and import level at equilibrium national income. [6 marks]
Consumption = 200 +0.6(6370.96)-0.6.2(6370.96)= 3258.08*
*Tax = 0.2*6370.96 = 1274.2*
*Import = 150+0.1*6370.96 = 787.1*

c) If government what to increase equilibrium national income by N$100.00 and they can only achieve this by increasing its spending, by how much government must increase it spending to achieve that objective? [5 marks]

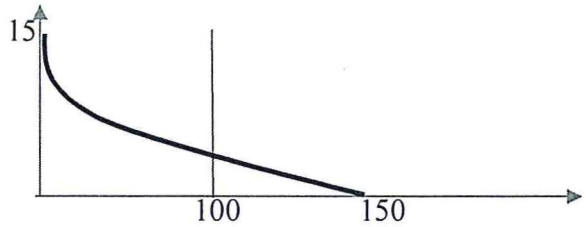
$$\Delta Y = \frac{1}{0.52}\Delta G$$
$$100 = \frac{1}{0.62}\Delta G$$
$$\Delta G = 62.$$

d) Using the knowledge of multiplier effect, how do you conclude that government is running a balance budget? [4 marks]
When the multiplier is equal to one, we expect the increase in income to be equal to the increase in government spending, which is funded by equal increase in tax revenue.

QUESTION FOUR **[25 MARKS]**

a) Demand function for real money balance is L(y, r) = 150 – 10r, where r is the interest rate in percent. The money supply is N$1000 and the price level is N$10.

i) Graph the supply and demand for real money balances. [6 marks]



ii) What is the equilibrium interest rate in the money market? [3 marks]

150 -10r = 100

r = 5%

iii) Assume that the price level is fixed. What happens to the equilibrium interest rate in the money market if the supply of money is reduced from N$1000 to N$800?[6 marks]

Will increase to 7% or by 2%

b) Consider the following short-run model of closed economy where C=10+0.9Yd; I = 5-5r; G = T= 100; money supply 1600 and price is 10; L(y,r) = Y- r

i) Derive IS and LM equation using information above [8 marks]

Y = 10+0.9y-90+5-5r+100

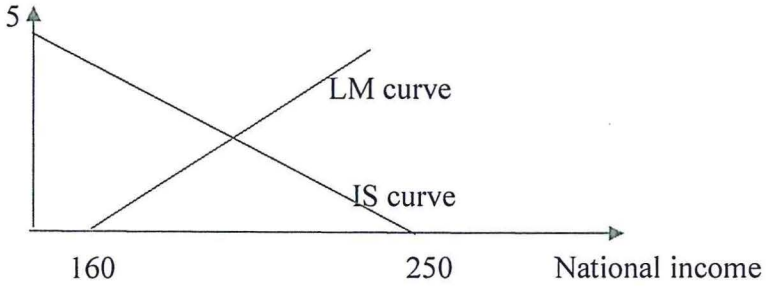
0.1Y= 25-5r

Y = 250 -50r IS equation

Y = 160 + r LM equation

ii) Draw IS and LM curve. [2 marks]

Interest rate



All the Best