namibia university
OF SCIENCE AND TECHNOLOGY

FACULTY OF COMMERCE, HUMAN SCIENCES AND EDUCATION

DEPARTMENT OF ECONOMICS, ACCOUNTING AND FINANCE

QUALIFICATION: BACHELOR OF ECONOMICS HONOURS DEGREE			
QUALIFICATION CODE:	08HECO	**LEVEL:**	8
COURSE CODE:	AME820S	**COURSE NAME:** ADVANCED MACROECONOMICS	
SESSION:	JAN 2024	**PAPER:**	THEORY
DURATION:	3 HOURS	**MARKS:**	100

SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER (S)	Prof. T. Sunde
MODERATOR:	Dr Reinhold Kamati

INSTRUCTIONS
1. Answer ALL the questions.
2. Write clearly and neatly.
3. Number the answers.

PERMISSIBLE MATERIALS
1. Ruler
2. Calculator

THIS QUESTION PAPER CONSISTS OF 4 PAGES INCLUDING THE COVER PAGE.

QUESTION 1 [25 MARKS]

Assume a macroeconomy producing only two distinct goods: A and B. Using 2022 as the base year, note that all quantities are measured in thousands (All calculations should be rounded to the nearest tenth).

Product	Quantity (2022)	Quantity (2023)	Prices (2022)	Prices (2023)
A	2,000	2,100	$400	$400
B	1,000	1,040	$2,000	$2,100

a) Analyse the data provided to compute both the nominal and real GDP growth rates for 2022 and 2023 to elaborate on the distinction between the two measurements. [7]

b) Using the GDP deflator method, determine and interpret the inflation rate (π) for the year 2023. Provide a brief discussion on how the GDP deflator offers insights into price level changes in the economy. [6]

c) Given that the money supply (M) stood at $10,000 in 2023, derive the velocity of money for the year. Offer an overview of the implications of the calculated velocity for macroeconomic activity and monetary policy. [6]

d) Anticipating a policy direction from the Central Bank for a targeted inflation rate (π) of 2% in 2024 and assuming the real GDP growth rate mirrors that of 2023, deduce the necessary money supply growth rate for achieving this target. Calculate the exact volume of money the Central Bank needs to introduce into the economy and discuss the potential economic ramifications of this monetary intervention. [6]

QUESTION 2 [25 MARKS]

Examine the dynamics of the Mundell-Fleming model within the context of fluctuating world interest rates.

a) Identify the underlying factors and conditions that might lead to a surge in the world interest rate, considering the assumption that the world operates as a closed economy. Discuss the immediate and long-term implications of rising world interest rates on global trade and investment flows. [7]

b) Utilise the Mundell-Fleming model to delve into the effects of an increasing world interest rate on a small open economy with a floating exchange rate. Analyse the impacts on:

- Aggregate income
- Exchange rate
- Trade balance

Incorporate graphical illustrations to enhance clarity and provide a comparative analysis of the scenario before and after the surge in the world interest rate. [9]

c) Contrast the insights from part (b) by evaluating the repercussions of a rising world interest rate in a scenario where the small open economy operates under a fixed exchange rate regime.

    i.   Explore the policy interventions that might be enacted to stabilise the economy. [3]

    ii.   Assess the viability and sustainability of maintaining the fixed exchange rate amidst fluctuating world interest rates. [3]

    iii. Discuss potential pressures on foreign reserves and the role of international financial institutions in such scenarios. [3]

QUESTION 3 [25 marks]

a) Using the national income identity expenditure method, derive the equation $NX = S - I$. In four sentences, explain its importance in understanding the relationship between trade and capital flows. [5]

b) Elucidate the relevance of the small open economy assumptions in the context of the Namibian economy. How do these assumptions align with and aid in understanding the economic dynamics of Namibia? [5]

c) Given Namibia's participation in international trade, evaluate how the following scenarios would affect Namibia's income (Y), investment (I), savings (S), and net exports (NX).

    i.   In the wake of escalating tensions between Russia and Ukraine, raising fears of a third world war, the rest of the world amplifies defence spending. Assess the consequent effects on Namibia's economic variables. [5]

    ii.   Namibia reduced defence spending as a fiscal consolidation effort to balance its budget. Analyse the immediate and potential long-term impacts on the country's macroeconomic indicators. [5]

    iii. The Bank of Namibia increased the repo rate, instigating a wave of pessimism among the business community. Explore and expound on the ripple effects of this on Namibia's economic landscape. [5]

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QUESTION 4 [25 marks]

a) Illustrate with a diagram and articulate why interest rates are not determined by domestic savings and investment in a small open economy. Provide a clear explanation anchored in the dynamics of capital mobility and global financial markets. [9]

b) With the aid of a small open economy model, delineate and expound upon the impacts of the following policies on the trade balance, savings, investment, and capital flows:

    i. Illustrate and clarify how an increase in domestic government spending influences key economic variables within a small open economy framework. [4]

    ii. Utilise the model to explain the macroeconomic effects in the small open economy when foreign countries have a surge in fiscal spending. [4]

    iii. Depict and elucidate the consequences of a rise in the demand for investment on the small open economy's trade balance, savings, and capital flows. [4]

    iv. Offer a detailed discourse on how expansionary fiscal policies, both domestically and internationally, influence the real exchange rate, net exports, and capital flows in a small, open economy. [4]