NAMIBIA UNIVERSITY
OF SCIENCE AND TECHNOLOGY

FACULTY OF MANAGEMENT SCIENCES

DEPARTMENT OF ACCOUNTING ECONOMICS AND FINANCE

QUALIFICATION:	BACHELOR OF ECONOMICS HONOURS DEGREE		
QUALIFICATION CODE:	08HECO	LEVEL:	8
COURSE CODE:	AME820S	COURSE NAME: ADVANCED MACROECONOMICS	
SESSION:	JANUARY 2020	PAPER:	THEORY
DURATION:	3 HOURS	MARKS:	100

SECOND OPPORTUNITY EXAMINATION QUESTION PAPER	
EXAMINER (S)	Prof. T. Sunde
MODERATOR:	Prof. J.P.S. Sheefeni

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

PERMISSIBLE MATERIALS

1. Ruler
2. Calculator

THIS QUESTION PAPER CONSISTS OF 4 PAGES

QUESTION 1 [25 marks]

(a) Place each of the following transactions in one of the four components of expenditure: consumption, investment, government purchases and next exports.

    i.   Boeing sells an airplane to the Air force.

    ii.   Boeing sells an airplane to American Airlines

    iii.   Boeing sells an airplane to Air Namibia

    iv.   Boeing sells an airplane to Mr Lazarus Indongo

    v.   Boeing builds an airplane to be sold next year   [5 Marks]

(b) Consider whether each of the following events is likely to increase or decrease real GDP in each case do you think economic well-being most likely changes in the same direction as real GDP. Why or why not?

    i.   The discovery of a new, easy-to-grow strain of wheat increases farm harvests.

    ii.   Increased hostility between labour unions and management sparks a rash of strikes.

    iii.   Firms throughout the country experience falling demand causing them to lay off workers.

    iv.   More high school students drop out of drop out of school to take jobs mowing lawns.

    v.   Fathers around the country reduce their workweeks to spend more time with their children.   [15 Marks]

(c) In a speech that Senator Robert Kennedy gave when he was running for president in in the USA in 1968, he said the following about GDP:

"GDP does not allow for the health of our children, the quality of their education, or the joy of their play. It does not include the beauty of our poetry or the strength of our marriages, the intelligence of our public debate or the integrity of our public officials. It measures neither our courage, nor our wisdom, nor our devotion to our country. It measures everything, in short, except that which makes life worthwhile, and it can tell us everything about America except why we are proud that we are Americans".

Was Robert Kennedy right? If so, why do we care about GDP?   [5 Marks]

QUESTION 2 [25 marks]

Consider a macroeconomy that produces three goods. Use the information below to answer the following questions.

	Quantity		Price	
Product	2010	2012	2010	2012
A	100	160	$4	$4
B	40	20	$8	$16
C	20	60	$4	$4
D	30	40	$10	$12

(a) Calculate nominal and real GDP for 2010 and 2012 using 2010 as the base year. Is the economy growing? If so, by how much? **[7]**

(b) Assuming that the typical consumer's basket of goods is given by 2010 quantities, calculate the CPI for 2010 and 2012 using 2010 as the base year. What is the inflation rate? **[7]**

(c) Calculate the inflation rate from the GDP deflator and compare it to CPI inflation? Which measure is larger and why? **[7]**

(d) What are the differences between CPI and the GDP deflator? Which of the two is a better measure of inflation? **[4]**

QUESTION 3 [25 marks]

a) If a small open economy cuts defense spending what happens to saving, investment, the trade balance, the interest rate and the exchange rate? [10 Marks]

b) The country Namibia is a small open economy. Suddenly, a change in world fashions makes the exports of Namibia unpopular.

    i.   What happens in Namibia to savings, investment, net exports, the interest rate and the exchange rate? [4 Marks]

    ii.   The citizens of Namibia like to travel abroad. How will this change in the exchange rate affect them? [3 Marks]

    iii.   The fiscal policy makers in Namibia want to adjust taxes to maintain the exchange rate at its previous level. What should they do? [4 Marks]

    iv.   If they do this (iii), what are the overall effects on saving, investment, net exports and the interest rate? [4 Marks]

QUESTION 4 [25 marks]

(a) State the **equations of motion** and **the Golden rule** level of capital (k*gold) for the following three cases:

    i.   There is no population growth and no technological progress

    ii.   There is population growth, but no technological progress

    iii.   There is both population growth and technological progress.   [9 Marks]

(b) Suppose an economy described by the Solow model has the following production function:

$$Y = (K)^{1/2}(L)^{1/2}$$

    i.   For this economy, what is the per worker production function $(f(k))$? [5 Marks]

    ii.   Use your answer in part (a) to solve for the steady state value of "y" as a function of $s, n,$ and δ.   [5 Marks]

    iii.   Two neighbouring economies Namibia and Zambia have the same production as above, but they have different parameter values. Namibia has a saving rate of 28 percent and a population growth rate of 1 percent per year. Zambia has a saving rate of 10 percent and population growth rate of 4 percent per year. In both countries the depreciation rate is $\delta = 0.04$. Find the steady state value for each country. [6 Marks]