



**NAMIBIA UNIVERSITY  
OF SCIENCE AND TECHNOLOGY**

**FACULTY OF MANAGEMENT SCIENCES**

**DEPARTMENT OF ACCOUNTING, ECONOMICS AND FINANCE**

<b>QUALIFICATION: BACHELOR OF ECONOMICS HONOURS</b>	
<b>QUALIFICATION CODE: 08HECO</b>	<b>LEVEL: 8</b>
<b>COURSE CODE: HEC820S</b>	<b>COURSE NAME: HEALTH ECONOMICS</b>
<b>SESSION: NOVEMBER 2019</b>	<b>PAPER: THEORY</b>
<b>DURATION: 3 HOURS</b>	<b>MARKS: 100</b>

<b>FIRST OPPORTUNITY EXAMINATION QUESTION PAPER</b>	
<b>EXAMINER(S)</b>	Ms. Lavinia Hofni
<b>MODERATOR:</b>	Mr. Immanuel Nashivela

<b>INSTRUCTIONS</b>
<ol style="list-style-type: none"><li>1. This question paper consists of two Sections (A and B)</li><li>2. Answer ALL Questions in Section A and Answer only TWO questions in Section B</li><li>3. Write each question on a separate page in your answer booklet</li><li>4. Write neatly and legibly</li></ol>

**THIS QUESTION PAPER CONSISTS OF 4 PAGES** (Including this front page)

**SECTION A**

**60 Marks**

**QUESTION 1 [20 marks]**

**1.1** Below is a Health Production function for Sub-Saharan African countries. The primary focus of the study was on the provision of health care services as determining life expectancy in the 31 countries that makes Sub-Saharan Africa.

<u>Explanatory Variables</u>	<u>Elasticity</u>	<u>Se</u>
Constant	3.330***	(0.364)
GDP per capita	0.048**	(0.025)
Food Availability	0.138***	(0.050)
Health care expenditure	-0.095***	(0.027)
Literacy rate	-0.003**	(0.001)
Adult alcohol consumption	-0.022	(0.012)
Population	-0.008	(0.014)
Urbanization	0.001	(0.002)
<u>CO2 emission Per capita</u>	<u>0.000</u>	<u>(0.001)</u>

\*\* , \*\*\* significant at the 10 and 5 percent level respectively

Source: Fayissa and Gutema (2005)

Note:

The dependent variable is **life expectancy at birth**. It indicates the number of years a newborn infant would live if prevailing patterns of mortality at the time of its birth were to stay the same throughout its life; **Health Expenditure** represents both public and private expenditure; **Literacy rate** represents life style and social factors; **GDP per capita** represent economic factors; **CO2 per capita** represents environmental factors, urbanization and congestion

- a) Based on the above statistical information, advice African Countries of what could be done to improve life expectancy on the continent [20 marks]

**QUESTION 2 [20 marks]**

**2.1** Suppose that your wealth increases to \$70,000. However, you understand that if you become ill or get injured, which may occur with probability 0.05, your medical expenses will cause your wealth to decline to \$20,000. If the utility of \$70,000 is 300 utils while the utility of \$20,000 is 100 utils, compute your expected wealth and expected utility.

[10 marks]

**2.2** The deadweight loss comes from a misallocation of resources among goods. Demonstrate the incremental benefits induced by the establishment of a coinsurance regime?

[10 marks]

**QUESTION 3 [20 marks]**

**3.1** Use a graph to demonstrate the preferences between Leisure and income (labor-leisure trade-off).

[20 Marks]

SECTION B

40 Marks

Instructions:

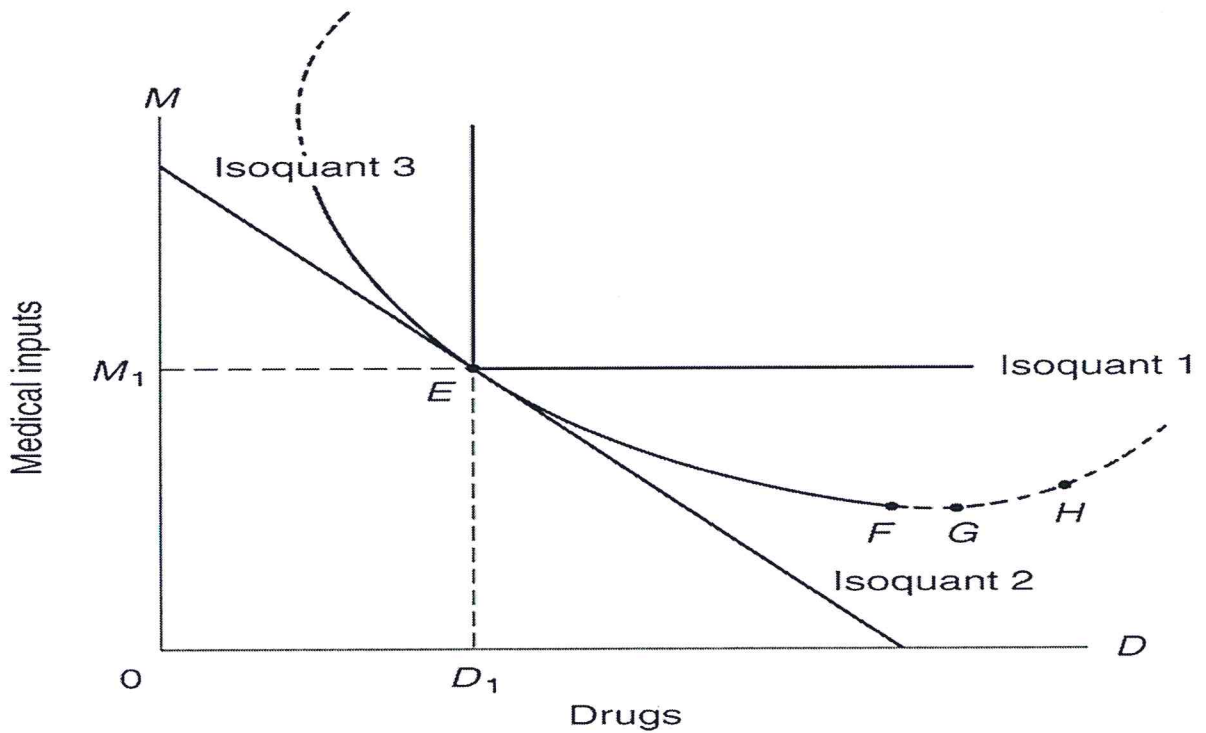
Answer ONLY two (2) questions in section B

QUESTION 1 [20 marks]

1.1 Economist's definition of health differs from other disciplines such as medicine. As an economics scholar, how would you apply economics to health? [20 marks]

QUESTION 2 [20 marks]

2.1 Given the graph below, explain how drugs and medical inputs would substitute for each other? [20 marks]



**QUESTION 3 [20 marks]**

- 3.1** Special advisor on health issues in the Office of the Presidency, Dr Bernard Haufiku, who is also the national hepatitis E campaign coordinator, says Namibia must not allow hepatitis E to become endemic as it would be hard to remove. Given what you know about epidemiology and economics, what would you say are the Economic consequences of this outbreak? [20 marks]