



FACULTY OF INFORMATION TECHNOLOGY
BACHELOR OF SCIENCE IN COMPUTER NETWORKS AND SECURITY
END OF SEMESTER EXAMINATION
CNS 1105 FUNDAMENTALS OF ECONOMICS

DATE: Monday 7th November 2022

TIME: 2 Hours

Instructions

1. This examination consists of **FIVE** questions.
2. Answer **QUESTION ONE (COMPULSORY)** in **section A**.
3. Answer **ANY TWO** Questions from **Section B**.

SECTION A:(COMPULSORY)

QUESTION ONE

(a) Pick the correct answer from the options provided below each question.

- i) In which of the following economic system does the government solely decide how to use the factors of production? **(1 mark)**
 - A. Free market economic system
 - B. Traditional economic system
 - C. Command economic system
 - D. Free-trade economic system
- ii) Macroeconomics deals with _____economic entities. **(1 mark)**
 - A. Aggregate
 - B. Individual
 - C. Micro
 - D. Socio
- iii) As per law of demand, quantity demand and price of a good are related. **(1 mark)**
 - A. Directly
 - B. Inversely
 - C. Positively
 - D. Not

- iv) There is/are _____ number of sellers under perfect competition. **(1 mark)**
- A. One
 - B. Two
 - C. Few
 - D. Many
- v) A positive cross-price elasticity coefficient implies that **(1 mark)**
- A. Two products are substitutes
 - B. Two products are jointly demanded
 - C. Two products are complementary
 - D. Two products have no relations
- vi) Economics is the study of **(1 mark)**
- A. how society manages its unlimited resources.
 - B. how to reduce our wants until we are satisfied.
 - C. how society manages its scarce resources.
 - D. how to fully satisfy our unlimited wants.
 - E. how to avoid having to make trade-offs.
- vii) Which one of the following is a factor of production? **(1 mark)**
- A. Taxes
 - B. Revenue
 - C. Profit
 - D. Labor
- viii) When Inflation increases which of the following statements is true? **(1 mark)**
- A. The purchasing power of money increases
 - B. The purchasing power of money reduces
 - C. The purchasing power of money remains the same
- (b) Explain the following terms as discussed in economics.
- i) Inflation **(3 marks)**
 - ii) Law of Demand **(2 marks)**
 - iii) Law of diminishing marginal utility **(3 marks)**
 - iv) Economic development **(4 marks)**
 - v) Marginalism & Opportunity cost **(4 marks)**

- (c) The price of blue band margarine reduces from Shs.250 where the quantity demanded is 50,000 to Shs 215 where the quantity demanded increases to 68,000.

Required;

Calculate the price elasticity of demand for blue band margarine using the above information and provide an interpretation. **(4 marks)**

- (d) The following information has been provided for the annual Gross Domestic Product (GDP) of Kenya for the last two years 2020 and 2021.

	Year-2020	Year-2021
Annual Gross Domestic Product (GDP)	8,745,400	9,391,250

Required;

Calculate the annual economic growth for the year 2021. **(2 marks)**

(TOTAL 30 MARKS)

SECTION B:

(Answer ANY TWO Questions from Section B)

QUESTION TWO

- (a) Explain the difference between fiscal policy and monetary policy as discussed in macroeconomics. **(3 marks)**
- (b) Explain three exemptions to the law of demand as discussed in economics. **(3 marks)**
- (c) The following demand schedule and supply schedule for Soko maize flour in Kenya for the year 2021 is as provided in the table below.

Price per Kg	Quantity Demanded in Kgs	Quantity Supplied in Kgs
50	2,250	165
78	1,950	615
100	1,400	850
125	1,215	900
150	980	1,190
172	660	1,700
205	145	2,050

Required;

- i) Using the above demand and supply schedule plot the demand curve and the supply curve for soko maize flour in Kenya on the same graph. **(6 marks)**

- ii) From the plotted demand and supply curves what is the equilibrium price and equilibrium quantity for soko maize flour in Kenya (1 marks)
 - (d) Explain the law of supply as discussed in economics. (2 marks)
 - (e) One of the aims of any government is to reduce the level of unemployment within the economy. Explain five strategies that can be adopted by the government to reduce the levels of unemployment within the economy. (5 marks)
- (TOTAL 20 MARKS)**

QUESTION THREE

- (a) Explain three problems encountered when measuring national income. (3 marks)
- (b) Explain the circular flow of income within the economy and provide a relevant diagram to accompany the explanation. (3 marks)
- (c) The following information has been extracted from the consumers of Tropical Heat Crisps in Nairobi County.

Bags of Crisps Consumed	Total Utility	Marginal Utility
1	10	
2	25	
3	38	
4	47	

Required;

- i) Calculate the marginal utility from consuming 2 bags of Bags of Crisps, 3 bags of Bags of Crisps and 4 bags of Bags of Crisps. (3 marks)
- (d) Explain how the Value-added method/output method can be used to calculate the level of Gross Domestic Product (GDP) for the Kenyan economy. (3 marks)
- (e) Explain how the following will affect the demand and supply in the market for wheat flour in Kenya. Provide demand and supply curves to accompany your explanation. The government has provided a wheat seeds subsidy that has reduced the price of seeds used in wheat farming by 20%. (4 marks)
- (f) You have been provided with the following information relating to products J,K and L.

Quantity (J)	Income
240	10,000
260	12,000

Quantity (K)	Income
150	10,000
180	12,000

Quantity (L)	Income
200	10,000
180	12,000

Required;

Calculate the income elasticity of demand for the three products J, K and L and explain which products are normal products and which products are inferior products. **(4 marks)**

(TOTAL 20 MARKS)

QUESTION FOUR

(a) The demand and supply functions are provided for soko maize flour in Kenya during the year 2021.

$$P=6,800+0.85Q_s\text{-Supply Function}$$

$$P=12,000-1.55Q_d\text{-Demand Function}$$

Required;

Calculate the equilibrium price and equilibrium quantity for soko maize flour using the above information. **(4 marks)**

(b) Explain the following as discussed in macroeconomics;

i) Per capita income. **(2 marks)**

ii) Direct Taxes. **(2 marks)**

iii) Progressive Taxes. **(2 marks)**

(c) Soko maize flour and Jogoo are two types of maize flours that are available within the Kenyan market.

Required;

Using the two products explain how the substitution effect would occur. **(4 marks)**

(d) Explain how the following events will affect the demand and supply in the market for beef in Kenya. Provide demand and supply curves to accompany your explanation.

- i) The average income of consumers in Kenya has increased by 10% over the last one year. **(3 marks)**
- ii) The consumers taste and preference has shifted away from consuming beef after a recent report was released indicating that beef is harmful for human health. **(3 marks)**

(TOTAL 20 MARKS)

QUESTION FIVE

- (a) Explain three Principles/cannons of a good tax system. **(3 marks)**
- (b) Explain the difference between oligopoly markets and duopoly markets. **(3 marks)**
- (c) Explain the difference between Marginal Revenue and Marginal cost and explain the profit maximizing condition. **(4 marks)**
- (d) Explain four factors that would hinder economic growth development in developing countries like Kenya. **(4 marks)**
- (e) Explain three sources of government revenues. **(3 marks)**
- (f) The following information has been provided for the Kenyan economy during the year 2021.

	Shs Millions
Consumption	12,000
Investment	4,000
Government Expenditure	3,000
Exports	3,000
Imports	5,000

Required;

Using the above information calculate the GDP for the year 2021. **(3 marks)**

(TOTAL 20 MARKS)