University of Fort Hare

Degree Examinations

Main exam

June 2023

AGE 111

Subject: Introduction to Agricultural Economics

Examiners

Internal Examiner

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Instructions

Answer BOTH questions in Section A and any TWO (2) questions in Section B

SECTION A – MULTIPLE CHOICE QUESTIONS **[Total: 25]**
QUESTION 1

1.1 Three students, Israel, Eve and Amanda come to the front of the class and the teacher holds up Oros drink bottles. He asks the question: "Are Oros drinks still scarce?"
(A) The answer is "yes" because the scarce resources, used to make Oros drinks, could still be used to make other goods and services.
(B) The answer is "no" because there are more Oros drinks than students.
(C) The answer is "yes" because the students want more than one Oros drink each.
(D) The answer is "no" because there are lots of Oros drinks available in the shops.

1.2 In a market economy, which group has the most influence on what is produced
(A) Consumers
(B) Businesses
(C) Labour unions
(D) The federal government

1.3 One of the following is not included as a group of decision makers in the market economy. Which one?
(A) Product market
(B) Households
(C) Government
(D) Business

1.4 In the simple two-sector, two-market circular flow model, factor payments are the flow between the:
(A) Resource markets and household sector.
(B) Product markets and business sector.
(C) Product markets and household sector.
(D) Resource markets and business sector.

1.5 The cost of production is the amount paid for the resources used to produce goods and services. These resources are:
(A) land, labour, capital and entrepreneurship
(B) raw materials
(C) factories and machinery
(D) raw materials; factories and machinery

1.6 Capitalism is an economic system that:
(A) produces more capital goods than consumer goods.
(B) gives private individuals and corporations the right to own productive resources.
(C) produces more consumer goods than capital goods.
(D) gives the government the right to tax individuals and corporations.

1.7 A production possibility frontier
(A) reflects the trade-off between unemployment and the rate of inflation
(B) reflects the trade-off between the manufacture of two different goods
(C) shows how much of a given good firms will supply at each price
(D) shows how much of a given good consumers will demand at each price

1.8 Opportunity costs are important mostly because
(A) opportunity costs are the main expenditure on most companies' balance sheets
(B) individuals should consider the true costs of each alternative when making decisions
(C) the costs to society of some activities are greater than the costs to private individuals
(D) opportunity costs represent the costs of previous decisions that cannot be reversed

1.9 Based on the table below that shows a consumer's budget options, the opportunity cost of buying the first DVD is _____ and the total opportunity cost of buying ten books is _____:

DVDs (Price= R100)	Books (Price=R50)
5	0
4	2
3	4
2	6
1	8
0	10

(A) Books; 2 DVDs.
(B) 2 Books; 5 DVDs.
(C) 2 Books; 4 DVDs.
(D) 2 Books; 2 DVDs.

1.10 Which of the following is not a benefit of international trade?
(A) Lower domestic prices
(B) High wage levels for all domestic workers
(C) Development of more efficient methods and new products.
(D) A greater range of consumption choices.

1.11 A closed economy is one in which:
(A) Imports exactly equal exports, so that trade is balanced.
(B) Domestic firms invest in industries overseas.
(C) The home economy is isolated from foreign trade
(D) Saving exactly equals investment at full employment.

1.12 The main advantage in specialisation results from:
(A) The specializing country behaving as monopoly
(B) Smaller production runs resulting in lower unit costs.
(C) Economies of large-scale production
(D) High wages paid to foreign workers

1.13 In South Africa, prices for most goods and services are determined mostly by the actions of
(A) Businesses and labor unions
(B) Consumers and the government
(C) Businesses and consumers
(D) Businesses and the government

1.14 If the demand for hamburgers increases, producers will

(A) Decrease production and increase price
(B) Decrease production and decrease price
(C) Increase production and price
(D) Increase production and decrease price

1.15 In January 2023 the price of crude oil increased, which in turn caused the price of natural gas to rise. This can best be explained by saying that oil and natural gas are:
(A) complementary goods and the higher price for oil increased the demand for natural gas.
(B) complementary goods and the higher price for oil decreased the supply of natural gas.
(C) substitute goods and the higher price for oil increased the demand for natural gas.
(D) substitute goods and the higher price for oil decreased the supply of natural gas.

1.16 A no-trade world will have which of the following characteristics:
(A) Countries will have same relative endowments of production factors
(B) Consumers across countries will have identical and homogenous tastes
(C) There will be no distortions or externalities
(D) all of the above

1.17 If a good is normal, then a decrease in price will cause a substitution effect that is
(A) positive and an income effect that is negative
(B) negative and an income effect that is positive.
(C) negative and an income effect that is negative.
(D) positive and an income effect that is positive.

1.18 The long-run average total cost curve:
(A) displays declining unit costs so long as output is increasing.
(B) has a shape which is the inverse of the law of diminishing returns.
(C) can be derived by summing horizontally the average total cost curves of all firms in an industry.
(D) indicates the lowest unit costs achievable when a firm has had sufficient time to alter level of output

1.19 Improved technology in producing home computers usually will cause the supply of computers to
(A) Decrease and the price to increase
(B) Decrease and the price to decrease
(C) Increase and the price to decrease
(D) Increase and the price to increase

1.20 If there is a large decrease in demand in blue jeans and no change in supply
(A) Consumers will pay a higher price for blue jeans
(B) There will be no change in the price of blue jeans
(C) There will be no change in the number of blue jeans sold
(D) Consumers will pay a lower price for blue jeans

1.21 If the minimum wage is set too high, in some labour markets we can expect to see:
(A) a shortage of labour.

(B) an increase in on-the-job training.
(C) unemployment (surplus of labour)
(D) a decline in wage costs.

1.22 A positive cross elasticity of demand coefficient indicates that:
(A) a product is an inferior good.
(B) a product is a normal good.
(C) two products are substitute goods.
(D) two products are complementary goods.

1.23 For which product is the income elasticity of demand most likely to be negative?
(A) computer software
(B) Basketballs
(C) used clothing
(D) Bread

1.24 If demand for farm crops is inelastic, a good harvest will cause farm revenues to:
(A) increase because of the increase in the quantity that farmers can sell.
(B) increase because of a downward movement along the supply curve, encouraging an increase in demand.
(C) decrease because of a percentage fall in price greater than the percentage increase in quantity sold.
(D) remain unchanged, because the increase in quantity that can be sold will be matched by an equal decrease in price

1.25 When the price of a product is increased 10 percent, the quantity demanded decreases 15 percent. In this range of prices, demand for this product is:
(A) Inelastic
(B) cross-elastic.
(C) elastic.
(D) unitary elastic.

QUESTION 2 **[25 Marks]**

2.1 Assume that there are two nations in the world, South Africa and Zimbabwe, and that each country can produce only two products. They can produce the following:

	Maize ('000 t)	Wheat ('000t)
South Africa	2 maize /hector	6 wheat /hector
Zimbabwe	4 maize /hector	8 wheat /hector

a) Which country has the absolute advantage in producing maize? (1)

b) Which country has the absolute advantage in producing wheat? (1)

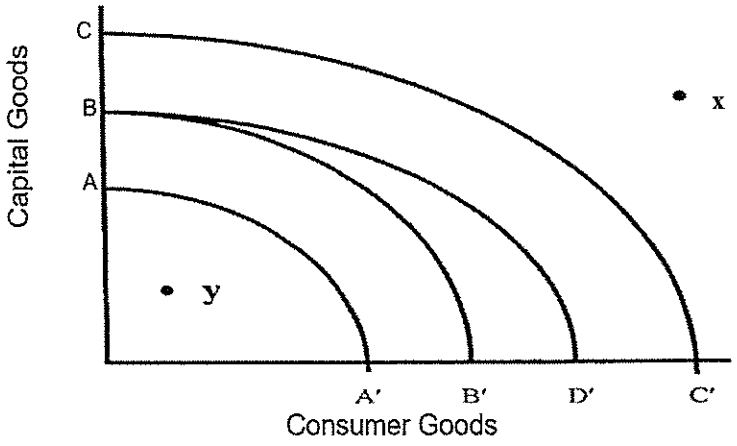
c) Calculate the opportunity cost of producing maize for both countries? (4)

d) If the two countries were to specialize and trade with one another, which country would import maize) (2)

e) Which country has comparative advantage in producing wheat? show all calculations (5)

f) If the two countries were to specialize and trade with one another, which country would import wheat? (2)

2.2 Use the following production possibilities diagram to answer each of the questions that follow. Each question starts with curve BB' as a country's production possibilities curve. (Indicate the curve you choose with two letters)



a) Suppose there is a major technological breakthrough in the consumer goods industry, and the new technology is widely adopted. Which curve in the diagram would represent the new production possibilities curve? (2)

b) Suppose that a new government that forbids the use of automated machinery and modern production techniques in all industries comes into power. Which curve in the diagram would represent the new production possibilities curve? (2)

c) Suppose massive new sources of oil and coal are found within the economy, and there are major technological innovations in both sectors of the economy. Which curve in the diagram would represent the new production possibilities curve? (2)

d) If BB' represents a country's current production possibilities frontier, what can you say about a point like x? (Explain briefly.) (2)

e) If BB' represents a country's current production possibilities frontier, what can you say about a point like y? (Explain briefly.) (2)

SECTION B

QUESTION 3

3.1 Give a list of the determinants of demand. What happens to the demand curve when any of these determinant's changes? (8)

3.2 The following table shows the total demand and total supply of beef per month in East London city of South Africa.

Thousands of tonnes	Price per kg R	Thousands of tones supplied	Surplus (+) or shortage (-)
85	34	72	
80	37	73	
75	40	75	
70	43	77	
65	46	79	
60	49	80	

i. What is the equilibrium price and the equilibrium quantity? (2)
ii. Fill in the surplus-shortage column and use it to explain why your answers are correct. (2)
iii. Graph the demand for beef and the supply of beef. (2)
iv. What will happen to the beef market if price is set at R37? What about at R46? (2)

3.3 There is an outbreak of foot-and-mouth disease in KwaZulu Natal which led to the burning of thousands of cattle carcasses. What impact do you think this had on:

i. the demand for chicken meat? (2)
ii. the supply of cattle hides? (2)
iii. hide prices? (1)
iv. the supply of leather? (2)
v. the price of leather goods? (2)

QUESTION 4

4.1 What is cross elasticity of demand? Under what circumstances will it be positive or negative? (4)

4.2 Substitutability and the proportion of income spent on a good are two factors influencing the elasticity of demand. Explain how they influence the elasticity of demand. (6)

4.3 The table below gives the demand schedule for bread at the University of Fort Hare.

Price per loaf	Quantity demanded (loaves)
R4	180
R6	180

i. Calculate the price elasticity of demand for the bread. (5)
ii. Over the price range in question, is this demand schedule price-inelastic, unit elastic, or price-elastic or perfectly inelastic? (2)
iii. Is total revenue greater at the lower price or the higher price? (3

4.4 A tractor dealer increases his tractor prices by 20 per cent. He then finds that his tractor sales have fallen by 10 percent.

i. What can you say about the price elasticity of demand for tractors? (3)
ii. What will happen to the dealer's total revenue? (2)

QUESTION 5

5.1 Define Total Product, Average Product and Marginal Product. Explain the relationships among the total product curve, average product curve and marginal product curve.

(9)

5.2 Fill in the missing values for marginal (c and d), average (e), and total products (a and b) in the following table. Assume that capital and labor are the only two inputs in the production function and that capital is held fixed. (5)

Units of Labour	Total Product	Marginal Product	Average Product
6	126	N/A	21
7	154	c)	22
8	a)	23	e)
9	b)	d)	20

5.3 From the table below answer the following questions:

Output (units)	Average Fixed Cost	TC	AVC	ATC	MC
0		250	-	Undefined	
5	50	350			
10	25	430			
20	12	470			
40	8	580			

i. Find the average variable cost at each level of production. (5)
ii. What is the marginal cost of increasing output from 5 to 10 units? (1)
iii. Find the average total cost at each level of production. (5)