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# education

Department:
Education
North West Provincial Government
REPUBLIC OF SOUTH AFRICA

## **PROVINCIAL ASSESSMENT**

**GRADE 11** 

ECONOMICS P2 JUNE 2024

**MARKS: 150** 

TIME: 2 hours

This question paper consists of 12 pages.

## **INSTRUCTIONS AND INFORMATION**

1. Answer FOUR questions as follows in the ANSWER BOOK provided:

SECTION A: COMPULSORY

SECTION B: Answer TWO of the three questions. SECTION C: Answer ONE of the two questions.

- 2. Answer only the required number of questions. Answer in excess of the required number will NOT be marked.
- 3. Number the questions correctly according to the numbering system used in the question paper.
- 4. Write the guestion number above each answer.
- 5. Read the questions carefully.
- 6. Start EACH question on a NEW page.
- 7. Leave 2–3 lines between subsections of questions.
- 8. Answer the questions in full sentences and ensure that the format, content and context of your responses comply with the cognitive requirements of the questions.
- 9. Use only black or blue ink.
- 10. You may use a non-programmable pocket calculator.
- 11. Write neatly and legibly.

## **SECTION A (COMPULSORY)**

QL	JES	ΓΙΟ	N 1

## 30 MARKS - 20 MINUTES

1.1	Choose the	ons are provided as possible answers to the following questions. answer and write only the letter (A–D) next to the question 1.1 to 1.1.8) in the ANSWER BOOK, e.g. 1.1.9 D.
	1.1.1 Whe	en firms are able to determine their own prices, they are known as
	A B C	price makers. perfect markets. price takers.

	C D	price takers. non-price competitors.
1.1.2		en consumers see the of a product, they know exactly how much the pay.
	A B C D	barcode relative price value absolute price
1.1.3	Сар	ital are sold in the market.
	A B C D	product foreign factor retail
1.1.4	is	s the difference between total revenue from sales and explicit costs.
	A B C D	Normal profit Economic profit Natural profit Economic loss

Profit will be maximised when TR lies above ... 1.1.5

> AR. Α TC. В С MR. MC.

1.1.6 When ... announce an increase in their prices, other smaller companies will follow.

Α regulators В capitalists С loss leaders

price leaders

- 1.1.7 All consumers have a ... of resources.
  - A scarcity
  - B abundance
  - C unlimited supply
  - D profitable amount
- 1.1.8 A negative income elasticity coefficient tells us that the product is a/an ... good.
  - A limited
  - B unlimited
  - C inferior
  - D normal

(8 x 2) (16)

1.2 Choose a description from COLUMN B that matches the item in COLUMN A. Write only letter (A–I) next to the question numbers (1.2.1 to 1.2.8) in the ANSWER BOOK, e.g. 1.2.9 J.

	COLUMN A		COLUMN B
1.2.1	Homogenous	Α	payments of money made for the factors of production and other inputs that are
1.2.2	Negotiate		used in the production process
1.2.3	Average cost	В	a market structure with a large single seller and many buyers
1.2.4	Total utility  Explicit costs	С	when income rises, larger quantities are demanded
	•		demanded
1.2.6	Relatively elastic	D	the value is more than one, but less than infinity
1.2.7	Normal good Substitutes	Е	products are standardised
1.2.0	Cubstitutes	F	total satisfaction gained by adding up all the utils
		G	buyers and sellers discuss prices
		Н	total cost divided the by total number of units produced
		I	positive cross elasticity of demand

 $(8 \times 1) (8)$ 

- 1.3 Give ONE term for each of the following descriptions. Write only the term next to the question numbers (1.3.1 to 1.3.6) in the ANSWER BOOK. Abbreviations, acronyms and examples will NOT be accepted.
  - 1.3.1 The production of one good leads to the production of other goods in the same process
  - 1.3.2 Production processes focussed on manual production by people
  - 1.3.3 The income earned by a business from the sale of goods and services
  - 1.3.4 The cost of producing one more unit of a product
  - 1.3.5 Price decrease in one product leads to an increased demand for another product
  - 1.3.6 The impact of changes in prices on the demand for goods  $(6 \times 1)$  (6)

TOTAL SECTION A: 30

## SECTION B

Answer any TWO of the three questions in this section in the ANSWER BOOK.

## **QUESTION 2: MICROECONOMICS**

40 MARKS - 30 MINUTES

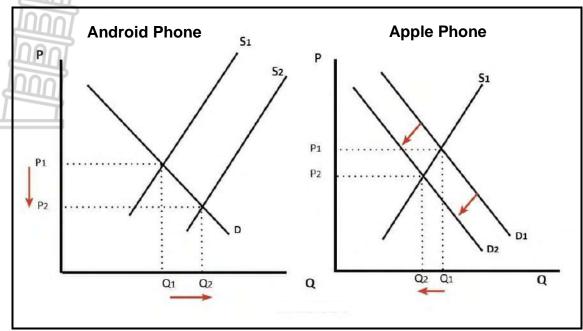
- 2.1 Answer the following questions.
  - 2.1.1 Name any TWO examples of complimentary products. (2 x 1) (2)
    - 2.1.2 Explain the relationship between the product and the factor markets. (1 x 2) (2)
- 2.2 Study the cartoon below and answer the questions that follow.



[Source: https://www.dailymaverick.co.za]

- 2.2.1 Identify the market structure in the cartoon above. (1)
- 2.2.2 Name the service provided by the state owned enterprise in the cartoon above. (1)
- 2.2.3 Briefly describe the term *market structure*. (2)
- 2.2.4 Explain how price is determined in perfect competition. (2)
- 2.2.5 How can competition be used to increase the standard of living?  $(2 \times 2)$  (4)

2.3 Study the graph below and answer the questions that follow.



[Source: https://www.economicshelp.org]

- 2.3.1 Name the TWO products that are compared in the graph above. (1)
- 2.3.2 Identify the type of relationship between the products in the graph above. (1)
- 2.3.3 Briefly describe the term *relative prices*. (2)
- 2.3.4 Why would the price of products increase if the price of fuel increases? (2)
- 2.3.5 Explain what happens to the demand for Apple phones when there is a decrease in the price of Android phones? (2 x 2) (4)
- 2.4 With the aid of a graph discuss how oligopolies set prices in the market. (2 x 4) (8)
- 2.5 Assess the importance of the availability of information as a characteristic of markets.(4 x 2) (8)[40]

## **QUESTION 3: MICROECONOMICS**

## 40 MARKS - 30 MINUTES

- 3.1 Answer the following questions.
  - 3.1.1 Name the TWO contributors to total cost. (2 x 1) (2)
  - 3.1.2 How do businesses benefit from changes in the long run? (1 x 2) (2)
- 3.2 Study the cartoon below and answer the questions that follow.



[Adapted from: https://za.pinterest.com]

- 3.2.1 What are indicated by the notes on the mirror in the cartoon above? (1)
- 3.2.2 What is the main objective of any private business? (1)
- 3.2.3 Briefly describe the term *sales maximising*. (2)
- 3.2.4 What is the biggest determinant of a business's goals or objectives? (2)
- 3.2.5 How will big business implement any TWO SMART objectives. (2 x 2) (4)

3.3 Study the table below and answer the questions that follow.

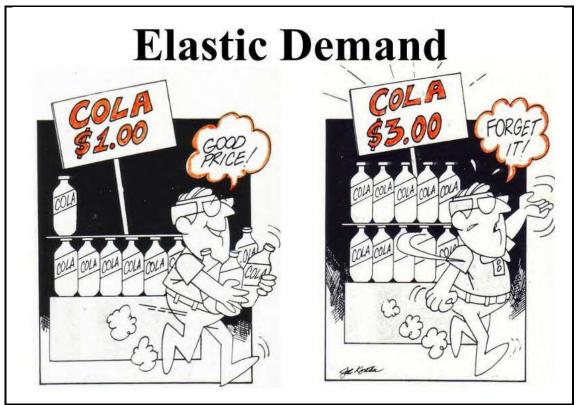
TOTAL REVENUE SCHEDULE						
Quantity	QuantityPriceTotal RevenueAverage RevenueMarginal Revenue					
0	R0	R0	R0	R0		
10	R290	R2 900	R290	R290		
30	R240	R7 200	R240	R215		
70	R200	R14 000	R200	R170		
90	R180	R16 200	R180	Α		
110	R130	R14 300	R130	-R95		
120	R110	R13 200	R110	-R110		

- 3.3.1 What is depicted in the table above? (1)
- 3.3.2 How many units produces the largest total revenue in the table above? (1)
- 3.3.3 Briefly describe the term *normal profit*. (2)
- 3.3.4 What is the main determinants of changes in revenue? (2)
- 3.3.5 Calculate **A**, show ALL calculations. (2 x 2) (4)
- 3.4 Distinguish between economies of scale and diseconomies of scale. (2 x 4) (8)
- 3.5 How does the current South African economic landscape impact on the cost of production? (4 x 2) (8) [40]

## **QUESTION 4: MICROECONOMICS**

### 40 MARKS - 30 MINUTES

- 4.1 Answer the following questions.
  - 4.1.1 Name any TWO products where demand will not change when prices decrease. (2 x 1) (2)
  - 4.1.2 What influences the price of fuel in South Africa? (1 x 2) (2)
- 4.2 Study the cartoon below and answer the questions that follow.



[Source: https://oppysportsblog.wordpress.com]

- 4.2.1 What makes the consumer decide NOT to buy the product advertised in the cartoon above? (1)
- 4.2.2 Name the tax that can increase the price of cold drinks. (1)
- 4.2.3 Briefly describe the term *price elasticity of supply.* (2)
- 4.2.4 What will happen when the supply of a product is inelastic to changes in prices? (2)
- 4.2.5 How can changes in income affect the elasticity of demand? (2 x 2) (4)

4.3 Study the extract below and answer the questions that follow.

## JOHN BATES CLARK, MARGINAL UTILITY

Give to a man one unit of the article **A**, and then another and another, till he has ten of them. While each of the articles in the series may do him some good, the amount of the benefit will steadily diminish, as the number of the articles grows larger, and the tenth one will benefit him least of all.

In order to add to his stock of **A**, the man will never sacrifice more than what is, in his view, a fair offset for the benefit that he will get from the tenth and last unit of it.

In order that an article may be wealth at all, each unit of the supply of it must, as we have seen, be of some importance to its owner. The law that we have just cited marks the last unit of the supply as the least important unit.

[Source: https://www.econlib.org]

	4.3.1	Name the economic concept explained in the extract above.		(1)
	4.3.2	What is seen as the least important unit supplied in the extract a	above?	(1)
	4.3.3	Briefly describe the term consumer equilibrium.		(2)
	4.3.4	What is the relationship between scarcity and utility?		(2)
	4.3.5	Explain the law of diminishing marginal utility.	(2 x 2)	(4)
4.4	Discus	s the factors influencing the price elasticity of supply.	(4 x 2)	(8)
4.5	Examir	ne factors that can influence monopolies when setting prices.	(4 x 2)	(8) <b>[40]</b>

**TOTAL SECTION B: 80** 

### SECTION C

Answer any ONE of the three questions in this section of the ANSWER BOOK.

Your answer will be assessed as follows:

STRUCTURE OF THE ESSAY	MARK ALLOCATION
<ul> <li>Introduction</li> <li>The introduction is the lower-order response.</li> <li>A good starting point would be to define the main concept related to the question topic.</li> <li>Do NOT include any part of the question in the introduction.</li> <li>Do NOT repeat any part of the introduction in the body.</li> <li>Avoid mentioning in the introduction what you are going to discuss in the body.</li> </ul>	Max. 2
Body Main Part: Discuss in detail/In-depth discussion/Examine/Critically discuss/Compare/Distinguish/Differentiate/Explain/Draw a graph and explain/Complete the given graph/Assess/Debate. A maximum of 8 marks may be allocated for headings/examples.	Max. 26
Additional Part: Critically discuss/Evaluate/Critically evaluate/Debate/Deduce/Compare/Interpret/How/Suggest/Analyse A maximum of 2 marks may be allocated for mere listing of facts.	Max. 10
<ul> <li>Conclusion</li> <li>Any higher-order conclusion should include:</li> <li>A brief summary of what has been discussed without repeating facts already mentioned</li> <li>Any opinion or value judgement on the facts discussed</li> <li>Additional support information to strengthen the discussion/analysis</li> <li>A contradictory view point with motivation</li> <li>Recommendations</li> </ul>	Max.: 2
TOTAL:	40

### QUESTION 5: MICROECONOMICS

40 MARKS - 40 MINUTES

- Discuss in detail the demand and supply relationship of compliments with the aid of graphs.
   (26 marks)
- How can the private supply of electricity assist in relieving the impact of load shedding? (10 marks) [40]

## **QUESTION 6: MICROECONOMICS**

40 MARKS - 40 MINUTES

- Discuss in detail the FIVE types of price elasticity of demand (PED). (26 marks)
- Analyse the impact of the price of electricity on the demand for goods and services.
   (10 marks) [40]

TOTAL SECTION C: 40
GRAND TOTAL: 150

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## **PROVINCIAL ASSESSMENT**

**GRADE 11** 

JUNE 2024
MARKING GUIDELINES

**MARKS: 150** 

These marking guidelines consist of 16 pages.

## **SECTION A (COMPULSORY)**

## QUESTION 1 30 MARKS - 20 MINUTES

### 1.1 MULTIPLE CHOICE QUESTIONS

- 1.1.1 A price makers ✓ ✓
- 1.1.2 D absolute price ✓✓
- 1.1.3 C factor ✓ ✓
- 1.1.4 B Economic profit ✓ ✓
- 1.1.5 B TC ✓✓
- 1.1.6 D price leaders ✓ ✓
- 1.1.7 A scarcity ✓ ✓
- 1.1.8 C normal  $\sqrt{\ }$  (8 x 2) (16)

### 1.2 MATCHING ITEMS

- 1.2.1 E products is standardised ✓
- 1.2.2 G buyers and sellers discuss prices ✓
- 1.2.3 H total cost divided the total number of units produced ✓
- 1.2.4 F total satisfaction gained by adding up all the utils ✓
- 1.2.5 A payments of money made for the for the factors of production and other inputs that are used in the production process ✓
- 1.2.6 D the value is more than one, but less than infinity ✓
- 1.2.7 C when income rises, larger quantities are demanded ✓
- 1.2.8 I positive cross elasticity of demand √ (8 x 1) (8)

## 1.3 GIVE ONE TERM

- 1.3.1 Joint supply ✓
- 1.3.2 Labour intensive ✓
- 1.3.3 Revenue ✓
- 1.3.4 Marginal cost
- 1.3.5 Compliments/Complimentary products ✓
- 1.3.6 Price elasticity of demand  $\checkmark$  (6 x 1) (6)

TOTAL SECTION A: 30

## SECTION B

Answer any TWO of the three questions in this section in the ANSWER BOOK.

### QUESTION 2: MICROECONOMICS

40 MARKS - 30 MINUTES

- 2.1 Answer the following questions.
  - 2.1.1 Name any TWO examples of complimentary products.
    - Tennis rackets and tennis balls ✓
    - Television and PlayStation√
    - Bread and butter ✓
    - Tea and milk ✓
       (Accept any other correct relevant response)

 $(2 \times 1) (2)$ 

- 2.1.2 Explain the relationship between the products and the factors markets.
  - If the demand for goods and services in the products market increases, the demand for factors of production will also increase.
  - The demand for factors of production is derived from the demand goods and services. ✓✓
     (Accept any other correct relevant response)
     (1 x 2) (2)

### 2.2 DATA RESPONSE

2.2.1 Identify the market structure in the cartoon above.

2.2.2 Name the service provided by the state owned enterprise in the cartoon above.

2.2.3 Briefly describe the term market structure.

(Accept any other correct relevant response) (2)

2.2.4 Explain how price is determined in perfect competition.

Prices are determined by the forces of demand and supply.  $\checkmark\checkmark$  (2)

## 2.2.5 How can competition be used to increase the standard of living?

- No excessive control over price in the hands of buyers or sellers (price determined by demand and supply). ✓✓
- Buyers are not forced to pay high prices and sellers receive a good enough price to stay in business. ✓√
- Competition creates large output and large choice. ✓ ✓
- Due to the many sellers, consumers can shop around and buy from whoever they want. ✓√
- Increased choice and limited (no) control over price makes products cheaper and consumers can buy more with their limited income and thus increase their standard of living. ✓✓
   (Accept any other correct relevant response)

### 2.3 DATA RESPONSE

2.3.1 Name the TWO products that are compared in the graph above.

Android phones and Apple phones. ✓ (1)

2.3.2 Identify the type of relationship between the products in the graph above.

Substitute products. ✓ (1)

- 2.3.3 Briefly describe the term *relative prices*.
  - The price of various goods in relation to each other is very important. ✓✓
  - Relative prices tell us how much cheaper / expensive the price of a good is compared to one another. ✓✓
  - Based on these information consumers choose which products to buy and producers choose which products to produce. 
     (Accept any other correct relevant response)

## 2.3.4 Why would the price of a product increase if the price of fuel increases?

- Fuel is an input cost in the production process and are used to transport goods.
- Fuel is also used in generators used during load shedding. ✓ ✓
   (Accept any other correct relevant response)

  (2)

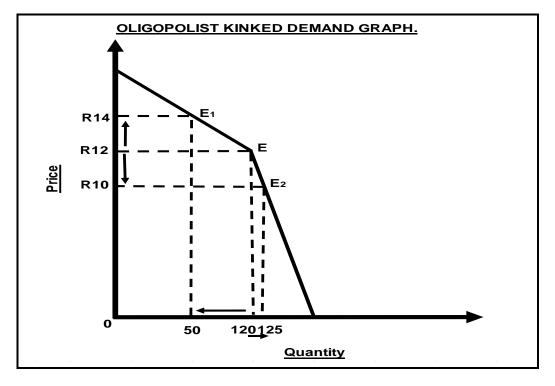
## 2.3.5 Explain what happens to the demand for Apple phones when there is a decrease in the price of Android phones?

- The demand for Apple phones will decrease when the price of Android phones decreases. ✓√
- With a decrease in price of Android phones the demand for Android phones will increase and at the same time the supply of Android phones must increase.

(Accept any other correct relevant response)

 $(2 \times 2) (4)$ 

## 2.4 With the aid of a graph discus how oligopolies set prices in the market.



Mark allocation	
Correct labeling of the axis	= 1 mark
Correct drawing of the Kinked Demand curve	= 1 mark
Correct indication of price increase / decreased demand	= 1 mark
Correct indication of price decrease / increased demand	= 1 mark

- At equilibrium point E the oligopolist will earn P x Q / R12 x 120 = R1 680.√√
- At equilibrium point E1 the oligopolist will earn P x Q / R14 x 50 = R700. ✓√
- At equilibrium point E2 the ologopolist will earn P x Q / R10 x 125 = R1 250.√√
- As illustrated by the graph, when the individual oligopolist increases his price above equilibrium E, he will earn less due to the kinked demand curve.
- At E1, even though his unit price increased, the huge drop in demand led to the decrease in income. ✓√

- As illustrated in the graph, If the oligopolist decrease his price below E, he will earn less due to the kinked demand graph. ✓✓
- At E2, even though his unit price decreased, the small increase in demand lead to the decrease in income. ✓ ✓

(Accept any other correct relevant response)

(Max 4)(8)

## 2.5 Assess the importance of the availability of information as a characteristic of markets.

- The same information about markets conditions and the product available to all participants in the market at the same time. ✓✓
- Under a perfect competition, we assume that all participants have complete knowledge of the market conditions and the product and are able to make accurate decisions. ✓✓
- Under imperfect competition, firms have incomplete information and they function under uncertain conditions. ✓✓
- Monopoly, technical knowledge is not available to consumers and all new entrants in the market. ✓√
- Oligopoly, existing firms may have all the technical information, but new entrants are unable to acquire. ✓✓
- Monopolistic competition, any new firms entering the market and consumers has full information. ✓√

(Accept any other correct relevant response) (A maximum of 2 marks may be allocated for mere listing of facts/examples)

(4 x 2) (8)

[40]

### QUESTION 3: MICROECONOMICS

40 MARKS - 30 MINUTES

- 3.1 Answer the following questions.
  - 3.1.1 Name the TWO contributors to total cost.

Variable cost √

• Fixed cost √ (2 x 1) (2)

3.1.2 How do businesses benefit from changes in the long run?

In the short run, the majority of inputs can be changed, but not all. In the long run the business can change all of its inputs and can thus have a greater reduction in production costs.  $\checkmark\checkmark$  (1 x 2) (2)

#### 3.2 DATA RESPONSE

3.2.1 What are indicated by the notes on the mirror in the cartoon above?

Goals ✓ (1)

## 3.2.2 What is the main objective of any private business?

Profit/Increase profit. ✓ (1)

## 3.2.3 Briefly describe sales maximising.

- Increasing the number of units of a product sold, expanding the businesses reach. √√
- Reaching more consumers / households, increasing the popularity of your product, even if the profit drops due to the decrease in prices.
   (Accept any other correct relevant response)

## 3.2.4 What is the biggest determinant of a business's goals or objectives?

The vision of the business.  $\checkmark\checkmark$  (2)

## 3.2.5 How will big business implement any TWO SMART objectives.

• Specific: The idea must be identifiable and easy to

understand. ✓✓

Measurable: Must be able to test or measure if the goal has been

reached. ✓✓

Agreed: All stakeholders (people of interest) in the business

must agree to the objective. <

Realistic: The business must be able to achieve the goal. ✓✓

Time specific: A time limit must be set on achieving the goal. ✓√
 (Accept any other correct relevant response) (2 x 2) (4)

## 3.3 DATA RESPONSE

## 3.3.1 What is depicted in the table above?

Total Revenue Schedule ✓ (1)

## 3.3.2 How many units produces the largest total revenue in the table above?

90 Units ✓ (1)

## 3.3.3 Briefly describe the term *normal profit*.

- The minimum return that is required by the owners of a firm in order for them to continue with the business. ✓✓
- After deducting all expenses from the income, the business makes enough profit to stay in an industry and not close his business and invest his capital in another firm / industry.

(Accept any other correct relevant response) (2)

## 3.3.4 What is the main determinants of changes in revenue?

Price and quantity / units sold  $\checkmark\checkmark$  (Accept any other correct relevant response) (2)

3.3.5 Calculate A, show ALL calculations.

MR = Change in Total Revenue/Change in Quantity ( $\Delta$  TR /  $\Delta$  Q  $\checkmark$  MR = R16 200 - R14 000/90 - 70  $\checkmark$  MR = R2 200/20  $\checkmark$  (2 x 2) (4)

## 3.4 Distinguish between economies of scale and diseconomies of scale.

- Economies of scale occurs when more units of a good or service can be produced on a larger scale with (on average) fewer unit inputs. ✓✓
- By producing more units, the average cost (AC) of each unit becomes less. ✓√
- Diseconomies of scale happen when a company or business grows so large that the cost per unit increase. It takes place when economies of scale no longer function for a firm. ✓
- In the short-run the firm can only increase the variable inputs (labour can produce only so much with the available capital & raw materials, as production increases so does the cost of production). ✓✓
- Thus the business must change all four its factors of production to enter a new cycle of diseconomies of scale. ✓✓
   (Accept any other correct relevant response)
   (A maximum of 4 marks may be allocated for mere listing of facts/examples)
   (2 x 4) (8)

# 3.5 How does the current South African economic landscape impact on the cost of production?

- South Africa is currently in a recession and although we saw a decrease in the demand for goods and services we also saw an increase in the cost of production. ✓√
- The main contributors to the cost of production is labour, raw materials, capital and entrepreneurship. ✓ ✓
- In the case of labour, it is one of the biggest contributors to production cost, during 2023 we saw an average salary increase of more than 6% ✓✓
- Labour is also a factor of production that is very inflexible, meaning the cost will increase when prices (or inflation) is increase, but when prices (inflation) decrease, salaries do not decrease. ✓√
- Another impact on the cost of production is transport, with high crude oil
  prices and a weak Dollar / Rand exchange rate, we are experiencing high
  (and increasing) fuel prices, this increase the cost of production / transport
  of goods and services.
- In order to bring inflation down / within inflation targets the Monetary Policy Committee have increased the interest rates by 4.75% since November 2021, this increases the cost of loans (repayments of capital).

• Even though the increases have stopped we have experienced no decreases in the interest rates since middle of 2023. ✓✓ (Accept any other correct relevant response) (A maximum of 2 marks may be allocated for mere listing of facts/examples) (4 x 2) (8) [40] **QUESTION 4: MICROECONOMICS** 40 MARKS - 30 MINUTES 4.1 Answer the following questions. 4.1.1 Name any two products where demand will not change when prices decrease. Salt ✓ Fuel ✓ Insurance √ Medication ✓ Addictive products (Tabaco and alcohol) (Accept any other correct relevant response)  $(2 \times 1) (2)$ 4.1.2 What influences the price of fuel in South Africa? The price of crude oil and the Rand / Dollar exchange rate is the two biggest influences on the retail price of fuel. < (Accept any other correct relevant response)  $(1 \times 2) (2)$ 4.2 DATA RESPONSE 4.2.1 What makes the consumer decide not to buy the product advertised in the cartoon above? The price of the product increased. ✓ (1) 4.2.2 Name the tax that can increase the price of coldrinks. Sugar tax/Vat ✓ (1) 4.2.3 Briefly describe the term *price elasticity of supply*. The responsiveness of supply to a change in price.  $\checkmark\checkmark$ (Accept any other correct relevant response) (2) 4.2.4 What will happen when the supply for a product is perfectly inelastic to changes in prices? The producer is unable to increase output in response to price changes. (Accept any other correct relevant response) (2)

## 4.2.5 How can changes in income affect the elasticity of demand?

- When we experience prosperity, where employment is high and more people earns an income; the consumption of goods will increase in proportion or even disproportionally. ✓ ✓
- In the case of normal goods, the demand will increase when income increases. ✓ ✓
- In the case of inferior goods, the demand will decrease when income increases as consumers will rather spend their money on goods with a better quality as they can now afford it (e.g. replace margarine with butter). ✓✓

(Accept any other correct relevant response)  $(2 \times 2)$  (4)

#### 4.3 DATA RESPONCE

4.3.1 Name the economic concept explained in the extract above.

Utility/Marginal utility ✓ (1)

4.3.2 What is seen as the least important unit supplied in the extract above?

The last unit / The tenth unit ✓ (1)

- 4.3.3 Briefly describe the term consumer equilibrium.
  - The money the consumer spend on one product gives the same marginal utility as money spend on any other product.
  - Because income is shared between the purchase of different products, utility cannot be increased as you have achieved maximum utility. ✓✓

(Accept any other correct relevant response) (2)

## 4.3.4 What is the relationship between scarcity and utility?

 While every resource experiences scarcity, every resource also has a utility. Utility is the term that economists use to describe the usefulness of something to someone. Utility gives us a very useful way of figuring out how to use scarce resources in the most productive ways.

(Accept any other correct relevant response) (2)

- 4.3.5 Explain the law of diminishing marginal utility.
  - Total utility will rice with each additional unit consumed, but at a slower rate. ✓√
  - When marginal utility becomes negative we will see that that total utility starts declining.

(Accept any other correct relevant response) (2 x 2) (4)

## 4.4 Discuss the factors influencing the price elasticity of supply.

- Time taken to produce the products. Agricultural products require sun, rain and a germination period, (a year to produce), thus output is less responsive to changes in prices. ✓√
- Nature of the product and durability. Products that can be easily stored as they are durable (ex. tyres) are normally in abundance of supply and would not react on price changes.
- Ease of switching production. If firms are flexible in their production process, this will help them have a more elastic supply, meaning they can adjust much quicker to price changes. ✓✓
- Market entry barriers. If there are many barriers to entering the market, it causes the supply curve to become more inelastic. On the other hand, if the market entry barriers are low; the supply curve is more elastic. 
   (Accept any other correct relevant response)
   (A maximum of 4 marks may be allocated for mere listing of facts/examples)

## 4.5 Examine factors that can influence monopolies when setting prices.

- As a monopolist is the only supplier of a product with no close relationship, they are called price makers. They decide on the price of their product. ✓✓
- If the monopolist wants to increase their revenue, they can increase the price of the product. ✓✓
- When an economy is in a recession and the consumers experience increases in prices of various goods and services then they must decide on what goods and services they will spend their income. ✓✓
- In the above scenario the consumer might restrict his demand for the monopolist product (use less units) as the prices are too high for them. ✓√
- The monopolists will then have no other option than to decrease their prices in order to increase the demand for their product. ✓√
- We might even see that other products, even though they are expensive start replacing the demand for the monopolistic product. Ex. with load shedding the private sector has expanded their supply of replacement and sustainable energy solutions, thus decreasing the demand for ESKOM's electricity, again ESKOM might have to readjust their prices as demand for their product decreases.

(Accept any other correct relevant response) (A maximum of 2 marks may be allocated for mere listing of facts/examples)  $(4 \times 2)$  (8) [40]

TOTAL SECTION B: 80

#### SECTION C

Answer any ONE of the three questions in this section of the ANSWER BOOK.

### QUESTION 5: MICROECONOMICS

40 MARKS - 40 MINUTES

- Discuss in detail the demand and supply relationship of compliments with the aid of graphs.
   (26 marks)
- How can the private supply of electricity assist in relieving the impact of load shedding? (10 marks)

### INTRODUCTION

Markets developed when people started producing surpluses & started trading them at a central point.  $\checkmark\checkmark$ 

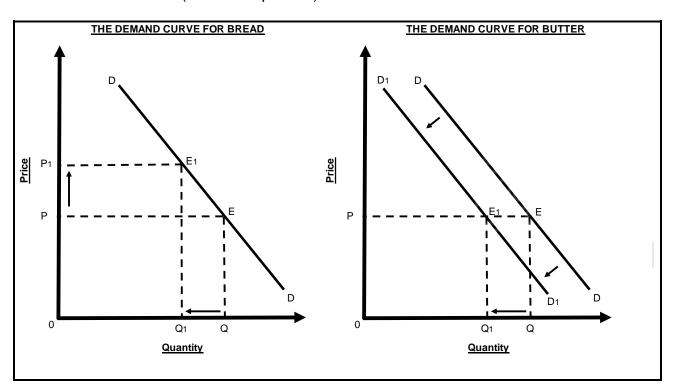
A market exists if there is a willing seller & a willing buyer of a product, a transaction will happen if both parties agree on a price for the product, performance and counter performance take place (quid pro qui).  $\checkmark\checkmark$ 

(Accept any other correct relevant response)

(Max 2)

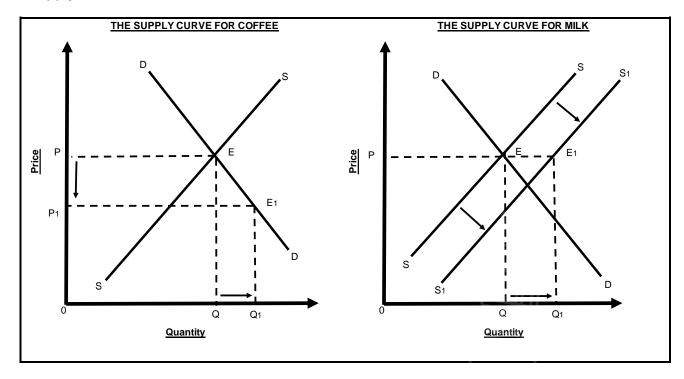
### **MAIN BODY**

- <u>Demand relationships between complements</u>, this are different products that are used together to satisfy a specific need, example bread and butter ✓✓
- When two goods are complements, they experience joint demand, the demand of one good is linked to the demand for another good. Therefore, if a higher quantity is demanded of one good, a higher quantity will also be demanded of the other, and vice versa.
- An increase in the price of one product (bread) can lead to a decrease in the demand for the other (butter/compliment) √√



Mark allocation	
Correct labeling of the axis	= 1 mark
Correct drawing of the both demand curves	= 1 mark
Correct indication of price increases/Decrease in demand of bread =	1 mark
Correct indication of the decrease in the demand for butter	= 1 mark

- Complements have a positive cross elasticity coefficient and the size range between zero & infinity (0 < Ec < ∞). ✓✓</li>
- If the price for product A increase, the demand for the compliment product B will decrease. ✓√
- Example, if the price of bread increases there will be a drop in the demand butter. ✓✓
- Thus the demand of jointly demanded goods tends to move in downwards and to the left, depending upon the degree of elasticity of demand for bread and the supply of butter.
- Supply relationship of complimentary products
- When there is a price increase (decrease) in one of the complimentary products, it will positively (negatively) effect the supply of the complimentary product. ✓√
- Example a producer of coffee, if the price goes down (increase), will have the
  opposite effect on the supply of milk, that will have to increase (decrease) their
  supply.



Mark allocation	
Correct labeling of the axis	= 1 mark
Correct drawing of the both supply curves	= 1 mark
Correct indication of price decrease/Increase in demand of coffee	= 1 mark
Correct indication of the increase in the supply of milk	= 1 mark

 The decrease of the price of coffee, together with the increase in the demand for coffee, will lead to an increase in the supply of milk at the same price. ✓ ✓

(Accept any other correct relevant response)
(A maximum of 8 marks may be allocated for mere listing of headings/examples)

(Max 26)

#### ADDITIONAL BODY

- ESKOM is a state owned enterprise responsible for the supply of electricity via coal-fire, hydro and nuclear power. ✓√
- Several reasons led to the market failure in the delivery of sufficient amounts of electricity, this includes, but are not limited to corruption, theft, incompetence lack of maintenance and planning, etc. ✓✓
- This market failure has led to more and more private companies supplying some sort of short term or long term solution to load shedding for households and businesses. ✓√
- The implementation, maintenance and running cost of these solutions is high and include solar electricity and generators. In 2023 Tiger Brands announced an R125 million investment in solar energy, that excluded R8 million in maintenance for the 2023 financial year.
- We have already noticed that the shift to alternative energy resources by households and businesses has already alleviated the stress on ESKOM's grid. ✓✓
- Government in the 2023/4 tax year announced subsidies for the implementation of solar systems to the value of R15 000. ✓✓
- The private supply of electricity is a fast growing industry, improvements in technology is making the production of alternative sources of energy not only cheaper, but also more efficient.

(Accept any other correct relevant response)

(A maximum of 2 marks may be allocated for mere listing of facts/examples)

(Max 10)

#### CONCLUSION

Private sustainable electricity supply is not only the way forward for businesses and households as a solution for load shedding, but also something that government must invest in sustainable electricity as the emissions of coal-fire electricity plants are extremely high and one of the main reasons for South Africa's high pollution levels.  $\checkmark\checkmark$ 

(Accept any other correct relevant higher order conclusion)

(Max 2)

[40]

#### QUESTION 6: MICROECONOMICS

40 MARKS - 40 MINUTES

- Discuss in detail the FIVE types of price elasticity of demand (PED). (26 marks)
- Analyse the impact of the price of electricity on the demand for goods and services. (10 marks)

#### INTRODUCTION

Price elasticity refers to the degree to which individuals, consumers, or producers change their demand or the amount supplied in response to price.  $\checkmark\checkmark$  (Accept any other correct relevant response) (Max 2)

#### MAIN BODY

- The price elasticity of demand is the percentage change in the quantity demanded of a good or service divided by the percentage change in the price.
- If a good is very responsive to changes in prices, it is seen as elastic, if the same price increase leads to a less responsive change in demand, the goods is seen as inelastic. ✓√

## Perfectly inelastic ✓

- Perfectly inelastic the PED = 0. ✓✓
- The quantity demanded remains unchanged, irrespective of a change in price. ✓√
- TR changes in the same direction as price. ✓√
- To improve revenue, increase prices. √√
   (Max 6)

## Relatively inelastic ✓

- PED between 0 and 1, and PED < 1. ✓√</li>
- The quantity demanded reacts to a change in the price, but by a smaller.
   percentage than that of the change in price. √√
- TR changes in the same direction as price. ✓✓
- To improve revenue, increase price only. ✓✓

## Unitary elastic ✓

- PED = 1. ✓✓
- The percentage change in the quantity demanded is equal to the percentage change of the price. ✓✓
- TR will remain unchanged. ✓✓
- Price changes has no effect on revenue. ✓✓ (Max 6)

### Relative elastic ✓

- PED between 1 and infinity and PED > 1. ✓√
- The quantity demanded reacts to a change in the price, but by a greater percentage than that of the change in price. √√
- TR will change in the opposite direction of the change in price. ✓√
- To increase revenue, always decrease the prices. √√
   (Max 6)

## Perfectly elastic/Infinite elasticity ✓

- The value is more than 1, but less infinity, PED = ∞. ✓√
- When the demand is perfectly elastic this will lead to a change in price and an infinite change in the quantity demanded. √√
- Income will increase infinitely with a reduction in price. 
   (Accept any other correct relevant response)
   (A maximum of 8 marks may be allocated for mere listing of headings/examples)
   (Max 26)

### **ADDITIONAL BODY**

ESKOM is a state owned enterprise that supplies electricity to South Africa.
 The price of electricity is regulated by the National Energy Regulator of South Africa. ✓√

- One of the major inputs in terms of variable costs in the production is electricity, meaning that the price of electricity has a major impact on the output cost of goods and services.
- During the past decade we saw constant price increases in the price of electricity, not only above inflation, but always double figures. The impact of these price increases on the production cost of products is immense and suppliers have started passing this on to the consumer.√√
- As ESKOM is a monopoly, it has nearly full control over the price it asks for its products. The only factor that has an impact is the fact that electricity competes with other goods and services in the market when it comes to consumer spend. ✓✓
- Any other form of electricity at this stage, generators and solar is expensive to implement and maintain. Thus also leading to the increase in the output cost of goods and services increasing.
- Load shedding also has an impact on the price of the price of goods and services as this forces the consumer to invest in alternative sources of electricity supply. ✓✓
   (Accept any other correct relevant response)
   (A maximum of 2 marks may be allocated for mere listing of facts/examples)
   (Max 10)

### CONCLUSION

There is no short term solution for the energy crisis in South Africa, producers and consumers is not only forced to bear the grunt of this but also look at alternative energy resources, most of them more expensive than ESKOM electricity. 

(Accept any other correct relevant higher order conclusion) (Max 2)

[40]

TOTAL SECTION C: 40
GRAND TOTAL: 150