GAUTENG PROVINCE

EDUCATION

REPUBLIC OF SOUTH AFRICA

PROVINCIAL EXAMINATION

JUNE 2023

GRADE 11

MARKING GUIDELINES

ECONOMICS (PAPER 2)

18 pages

SECTION A (COMPULSORY)

QUESTION 1

1.1 MULTIPLE-CHOICE QUESTIONS

1.1.1 D – MR=AVC ✓✓

1.1.2 B – variable inputs ✓✓

1.1.3 A – increase ✓✓

1.1.4 C – relatively elastic ✓✓

1.1.5 A – profit maximisation ✓✓

1.1.6 C – Organisation of Petroleum Export Countries (OPEC) ✓✓

1.1.7 B – Time periods ✓✓

1.1.8 D – business objectives ✓✓

(8 x 2) (16)

1.2 MATCHING ITEMS

1.2.1 C – Cost reductions that occur when firms increase production ✓

1.2.2 D – Additional receipts earned for every additional unit sold ✓

1.2.3 E – Market structure dominated by two firms ✓

1.2.4 F – Factors that determine the allocation of scarce resources ✓

1.2.5 H – The relationship between cost of production and total quantity produced ✓

1.2.6 G – The difference between total revenue and total costs ✓

1.2.7 A – Products sold in a perfect market and pure oligopoly ✓

1.2.8 B – Shows the firms lowest cost per unit at each level of output ✓

(8 x 1) (8)

1.3 **GIVE A TERM**

1.3.1 Market share/target market/market size ✓

1.3.2 Normal profit ✓

1.3.3 Variable cost ✓

1.3.4 Increasing returns to scale ✓

1.3.5 Utility ✓

1.3.6 Unitary elastic supply ✓

(6 x 1) (6)

TOTAL SECTION A: 30

SECTION B

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

QUESTION 2: MICROECONOMICS

2.1 **Answer the following question.**

2.1.1 **Name any TWO factors that influence of price elasticity of supply.**

- The level of employment ✓
- The ability to store the good ✓
- Time ✓
- The industrial nature of the goods ✓

(Accept any other correct relevant response.) (2 x 1) (2)

2.1.2 **How would a firm benefit from considering the price elasticity of demand before changing prices?**

- Business will benefit from potentially maximising profits without the risk of overcharging consumers and therefore losing them. ✓✓

(Accept any other correct relevant response.) (1 x 2) (2)

2.2 **DATA RESPONSE**

2.2.1 **Identify the business with low start-up costs.**

- Coffee business ✓ (1)

2.2.2 **Which market structure has negligible power over prices that are determined by the markets?**

- Perfect market ✓ (1)

2.2.3 **Briefly describe the term *hybrid structure.***

- It is a combination of imperfect markets and perfect markets. ✓✓

(Accept any other correct relevant response.) (2)

2.2.4 **Why do monopolistic firms use different approaches to communicate information to consumers?**

- To increase their market share. ✓✓ (2)

2.2.5 **How is efficiency possible in the monopolistic market structure?**

- Faced with a lower average cost curve, the firm can beat competition on price – lower than that of the monopolist. ✓✓
- Firms in a monopolistic market choose technologies and technical processes which are cost-efficient to allow expanding the production set of the firm at the respective level of factor usage. ✓✓

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

2.3 DATA RESPONSE

2.3.1 **Identify the total amount of fixed costs in the graph.**

- 200 ✓ (1)

2.3.2 **Provide the formula to calculate total cost.**

- TC=FC+VC ✓ (1)

2.3.3 **Briefly describe the term *total variable costs*.**

- Costs that change as output changes. ✓✓

(Accept any other correct relevant response.) (2)

2.3.4 **Why is the line FC a horizontal line?**

- Because fixed costs remain the same no matter the quantity produced. ✓✓

(Accept any other correct relevant response.) (2)

2.3.5 **The price of the product sold in the above graph is R100. What would the profit/loss of producing NO products be? Show ALL calculations.**

Profit/Loss = total revenue – total cost
or
= (price x quantity) – (total fixed cost + total variable cost)
= (100 x 0) – (200 + 0) ✓✓

= 0 – 200 ✓✓
= -R200 ✓ (loss) ✓ (2 x 2) (4)

2.4 **Briefly explain elastic supply using the graph below.**

- When supply is elastic, then the percentage change in quantity exceeds the percentage change in price. ✓✓
- A change in price causes a bigger proportional change in supply. ✓✓
- When price increases from P1 to P2, quantity demand will increase from Q1 to Q2.
- Demand curve (D1 to D2) – right shift along the supply side when price increases. ✓✓
- In the long run, supply will be more elastic because capital can be varied. ✓✓
- For example, elastic supply is the supply of non-necessity goods such as soft drinks where there are many substitutes and choices. ✓✓

(Accept any other correct relevant response.)
(Maximum of 2 marks for mere listing and examples.) (4 x 2) (8)

2.5 **How does loadshedding impact extended services as a strategy of non-price competition of oligopoly?**

- Profit will decline as firms close early due to loadshedding. ✓✓
- Consumers will face network problems when purchasing online which will decrease sales. ✓✓
- Increased costs in alternative power supplies which reduce working hours. ✓✓
- Consumers will find alternative shops/malls with back-up power to spend their disposable income. ✓✓
- Firms may use the loadshedding app/schedule to intensify their services. ✓✓

(Accept any other correct relevant response.)
(Maximum of 2 marks for mere listing and examples.) (8)
[40]

QUESTION 3: MICROECONOMICS

3.1 Answer the following questions.

3.1.1 **Name any TWO types of supply elasticity.**

- Perfect elastic ✓
- Relative elastic ✓
- Unit elastic ✓
- Relative inelasticy ✓
- Perfect inelastic ✓

(Accept any other correct relevant response.) (2 x 1) (2)

3.1.2 **What is the ultimate purpose of setting SMART objectives of business?**

- The ultimate purpose of setting SMART objectives is to clarify ideas, focusing time, resources, and efforts in a more productive manner. ✓✓

(Accept any other correct relevant response.) (1 x 2) (2)

3.2 **DATA RESPONSE**

3.2.1 **Which illegal activity is depicted in the cartoon above?**

- Price fixing/Collusion ✓ (1)

3.2.2 **Name the type of profit made by oligopolies in the market.**

- Economic profit ✓ (1)

3.2.3 **Briefly describe the term *cartel*.**

- When two or more firms agree formally on influencing market prices to maximise their profits and market share. ✓✓

(Accept any other correct relevant response.) (2)

3.2.4 **Why is it more beneficial for firms to collude instead of engaging in competition?**

- Profit is maximised under a colluding environment – when other firms are involved, there is less effort required in protecting market share. ✓✓

(Accept any other correct relevant response.) (2)

3.2.5 **How does government protect consumers from oligopolies?**

- By incentivising new companies, by providing tax relief, special grants etc. ✓✓
- Price ceilings can be implemented to limit how high prices in an oligopoly are set. ✓✓
- Imposing strict penalties for the breaching of antitrust laws can deter firms from excessive price manipulation. ✓✓

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

3.3 **DATA RESPONSE**

3.3.1 **On what level is the fuel tank in the picture above?**

- Empty ✓ (1)

3.3.2 **Name any ONE factor that determines the absolute price of a good.**

- Income ✓
- Competition in the market ✓
- Demand of the product ✓

(Accept any other correct relevant response.) (1)

3.3.3 **Briefly describe the term *relative prices*.**

- The ratio of the price of a specific product in one period to the price of the same product in some other period. ✓✓

(Accept any other correct relevant response.) (2)

3.3.4 **What will happen to the revenue of the fuel supplier if the price of fuel increases?**

- Revenue will decrease as fewer consumers will purchase at higher prices. ✓✓

(Accept any other correct relevant response.) (2)

3.3.5 **Why is it not possible for South African consumers to adjust their use of fuel in the short term?**

- South Africans' short term demand for petrol is relatively inelastic – short-term demand for fuel because of a lack of alternative transport systems. ✓✓
- As well as unreliable transport services due to strikes for wages or retrenchment. ✓✓

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

3.4 **Briefly discuss the relationship between the product and factor markets.**

- Factors of production are sold on the factor market, whilst products are sold on the goods market. ✓✓
- Without the factors of production, goods and services cannot be produced. ✓✓
- As the cost of the factors of production increase, so too will the price of products. ✓✓
- Shortages in the factor market will result in shortages in the goods market. ✓✓
- The product market is highly dependent on the factor market. ✓✓
- Any changes in the factor market will result in an influence in the goods market. ✓✓

(Accept any other correct relevant response.)
(Max 4 marks for discussion of product and/or factor markets.) (4 x 2) (8)

3.5 **How do natural disasters influence price elasticity of supply?**

- The higher demand inevitably triggers price increases as availability decreases. ✓✓
- Production costs will increase which results in retrenchment of workers and lower supply and higher demand of the product. ✓✓
- Natural disasters may lead to the formation of black markets in the economy. ✓✓
- It will decrease the supply to international markets which will result in products being cancelled, delayed or looted. ✓✓
- Unemployment in the tertiary sector will increase as fewer companies will be supplying products. ✓✓

(Accept any other correct relevant response.) (8)
[40]

QUESTION 4: MICROECONOMICS

4.1 Answer the following questions.

4.1.1 **Name any TWO examples of fixed costs.**

- Rent ✓
- Insurance ✓
- Loan payments ✓

(Accept any other correct relevant response.) (2 x 1) (2)

4.1.2 **What impact would an increase in the price of maize have on the supply of maize?**

- The supply would increase as producers are willing to maximise profits. ✓✓

(Accept any other correct relevant response.) (2)

4.2 **DATA RESPONSE**

4.2.1 **Which statement describes time specific as a SMART principle? Write down only the number of the statement from the information above, for example 4.2.1 STATEMENT 5.**

- Statement 1 or 1 ✓ (1)

4.2.2 **What is the objective of a firm in a market economy?**

- To maximise its profits. ✓ (1)

4.2.3 **Briefly describe the term *revenue*.**

- The income earned by a business from the sale of goods and services. ✓✓

(Accept any other correct relevant response.) (2)

4.2.4 **Explain the role of a measurable variable as an objective of a business.**

- It must be possible to test or measure whether the goal has been reached. ✓✓

(Accept any other correct relevant response.) (2)

4.2.5 **Why does a firm prefer sales revenue maximisation rather than profit maximisation?**

- It may be difficult to identify the cost to cut since all costs may be essential in the production process. ✓✓
- Firms will concentrate on maximising the company's revenue to maximise their returns. ✓✓

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

4.3 **DATA RESPONSE**

4.3.1 **Identify the cost curve linked to the shutdown point.**

- Average Variable Cost/AVC ✓✓ (1)

4.3.2 **Which of the graphs above is correctly drawn?**

- B ✓ (1)

4.3.3 **Briefly describe the term *long run costs*.**

- It is the period in which all factors of manufacturing and costs are variable. ✓✓

(Accept any other correct relevant response.) (2)

4.3.4 **Why do economists plot the graph of the MC at the midpoints?**

- It is the equilibrium quantity and firms do not want to deviate from the point of equilibrium. ✓✓

(Accept any other correct relevant response.) (2)

4.3.5 **How is the law of diminishing marginal returns related to the shape of the short-run marginal cost curve?**

- Beyond some point, the MP decreases as more of a variable factor is added to a fixed factor of production. ✓✓
- As production increases, diminishing marginal returns for the variable production factors mean that each additional unit of output will require more of the variable factors, so marginal costs go up when diminishing returns set in. ✓✓

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

4.4 **Using the graph below, discuss in detail the economic profit of a monopoly.**

- A monopoly makes economic profit in the short and long run. ✓✓
- The level of output that maximises a monopoly's profit is when the marginal cost equals the marginal revenue. ✓✓
- Average revenue is above the average cost which indicates economic profit (shaded area). ✓✓
- R80 represents revenue made by the firm and R40 represents costs that should be covered by the firm. ✓✓
- Profit maximisation will be determined at MC=MR. ✓✓

(Accept any other correct relevant response.) (4 x 2) (8)

4.5 **Analyse the effect of tax on price elasticity.**

- If demand is inelastic, a higher tax will cause only a small fall in demand. ✓✓
- Placing a tax on a good shifts the supply curve to the left. ✓✓
- When demand is inelastic, governments will see a significant increase in their tax revenue. ✓✓
- The consumer will be paying the tax in cases where the supply is more elastic than the demand. ✓✓
- The producer's burden is the decline in revenue due to taxes as fewer consumers will purchase goods and services.
- Luxury items will develop a more inelastic demand as these items will not be required by consumers. ✓✓

(Accept any other correct relevant response.)
(Maximum of 2 marks for mere listing of examples.) (8)

[40]

TOTAL SECTION B: 80

SECTION C

Answer ONE of the two questions from this section in the ANSWER BOOK.

Your answer will be assessed as follows:

STRUCTURE OF ESSAY	MARK ALLOCATION
Introduction The introduction is a low-order response. • A good starting point would be to define or explain a concept or key word that appears in the question. • Do not include any part of the question in your introduction. • Do not repeat any part of the introduction in the body. • Avoid saying in the introduction what you are going to discuss in the body.	Max. 2
Body **Main part**: Discuss in detail/In-depth discussion/Examine/ Critically discuss/Analyse/Compare/Evaluate/Distinguish/Differentiate/ Explain/Assess/Use the graph given and explain/Complete the graph given/Debate **A maximum of 8 marks can be awarded for headings/examples.**	Max. 26
Additional part: Give own opinion/Critically discuss/Evaluate/ Critically evaluate/Calculate/Deduce/Compare/Distinguish/ Interpret/ Briefly explain/How?/Suggest/Draw a graph **A maximum of 2 marks can be awarded for merely listing facts.**	Max. 10
Conclusion Any higher order conclusion must include the following: • The conclusion is a wrap-up of the discussion of the topic without repetition of facts already mentioned • The conclusion can take the form of an own opinion or value judgement with examples to support your discussion • Additional information that strengthens your discussion/analysis • The conclusion can take a contradictory viewpoint with motivation, if requested • Recommendations	Max. 2
TOTAL	**40**

QUESTION 5: MICROECONOMICS

- **Discuss, in detail, the demand and supply relationship with the aid of graphs (substitutes and complements). (26 marks)**
- **Examine the importance of complementary goods in the economy. (10 marks)**

INTRODUCTION

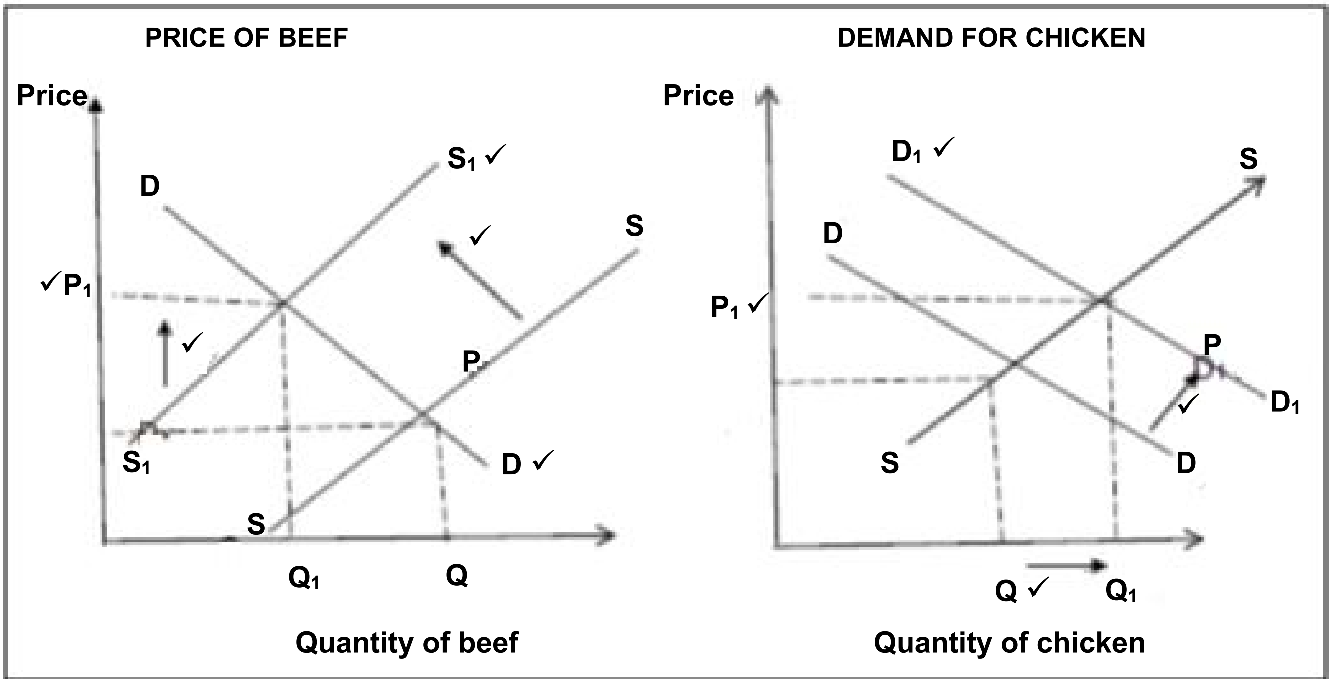
A demand relationship occurs when two or more goods and services are demanded at the same time, due to the fact that they can be used together. ✓✓ **(Max. 2)**
(Accept any other correct relevant introduction.)

BODY: MAIN PART

- The main difference between a substitute and a complement is that substitute goods are consumed in place of each other, whereas complements are consumed together. ✓✓
- If the cross-price elasticity of demand of the two goods is positive, then the goods are substitutes. On the other hand, if the cross-price elasticity of the two goods is negative, then the goods are complements.

Substitutes

- A substitute product is a product that is used in place of another product.
- Some products have specific relationships that will affect demand.
- Example: If you want to buy beef but it is too expensive, you tend to buy a cheaper alternative, e.g. chicken. In this instance, chicken is the substitute product.



Maximum 4 marks for each graph (Refer to ticks)

EXPLANATION OF THE GRAPH

Price of beef

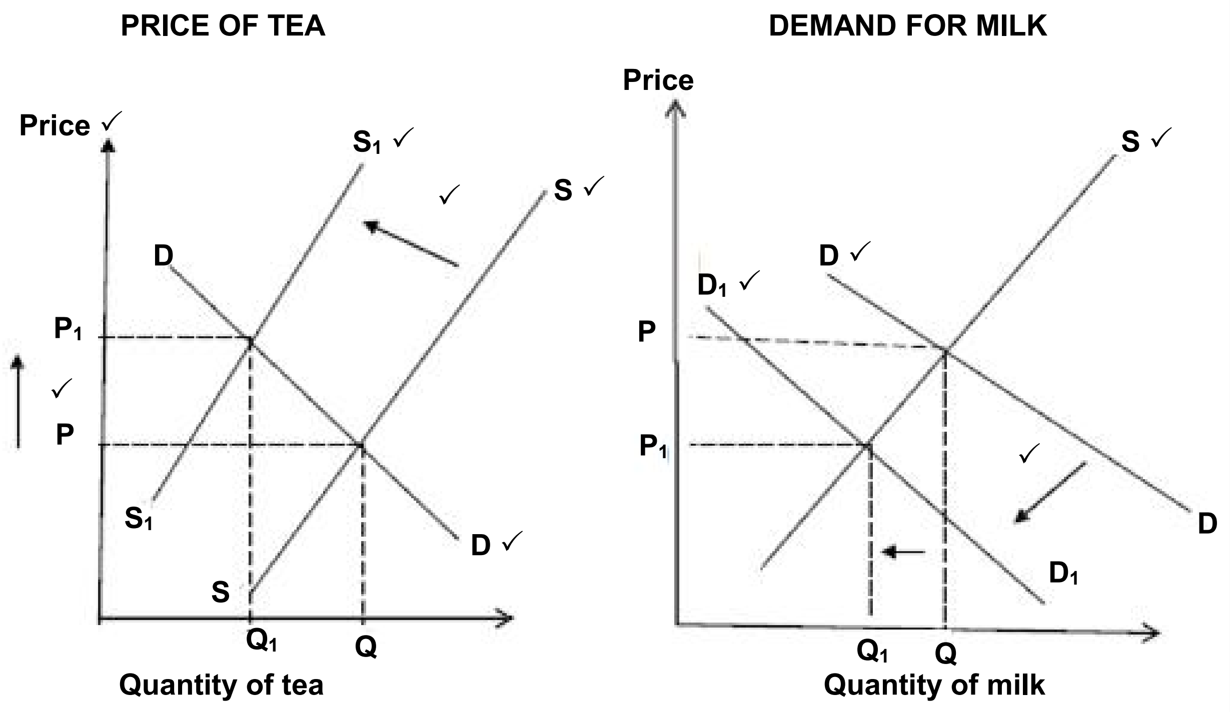
- The price of beef increases from P to P_1 due to a decrease in supply (supply-curve shifts from SS to S_1S_1).
- Leads to a decrease in quantity demanded of beef from Q to Q_1.

Demand for chicken

- The demand for the substitute good, which is chicken, increases from DD to D_1D_1.
- Because of the increase in demand, price also increases from P to P_1.
- This implies that an increase in the price of one product will cause an increase in demand of the substitute product.

Complements

Products are complementary products when they are used together to satisfy a need or a want ✓✓ e.g. tea and milk. ✓



Mark allocation (Maximum 4 for each graph)

EXPLANATION OF THE GRAPH

Price of tea

- The price of tea increases due to a decrease in supply.
- Supply curve shifts from SS to S_1S_1 while the price of tea increases from P to P_1.
- Quantity demanded for tea decreases from Q to Q_1.

Demand for milk

- The increase in the price of tea will cause a decrease in the demand for milk.
- People will buy less tea; therefore they will need less milk.
- This causes the demand curve (DD) to shift leftwards to D_1D_1, and quantity demanded decreases from Q to Q_1 and price will decrease from P to P_1.
- For complementary goods, when the price of one good increases, the demand for the complementary product will decrease. If the price of one product decreases, the demand for complementary products will increase.

(Accept any other correct relevant response.)
(Allocate a maximum of 8 marks for mere listing of facts/examples.) (Max. 26)

ADDITIONAL PART

Examine the importance of complementary goods in the economy.

- The complementary product usually adds to the overall value of another product, thus sharing a beneficial relationship. ✓✓
- Complementary products are usually affected by the prices of the products they are used with. If the price rises, consumers do not see the need to use the products, resulting in a drop in demand. ✓✓
- Complementary products increase sales as they are more lucrative to producers as compared to substitute goods since the demand for one results in a demand for the other. ✓✓
- Complementary products reduce product switch overs since it maximises brand image. ✓✓
- Complementary products help in reaching consumer expectations, and marketers do not need to spend a lot of time researching and analysing. ✓✓
- Companies producing the complementary products can predict the market demand and price fluctuation, thus controlling prices effectively. ✓✓
- Complementary products do not need a lot of advertising and there are few barriers in terms of entering and exiting a market. ✓✓

(Accept any other correct relevant response.) (Max. 10)

CONCLUSION
Consumption patterns and price levels are all inter-related with each other. ✓✓

(Accept any other relevant correct higher-order conclusion.) (Max .2) **[40]**

QUESTION 6: MICROECONOMICS

- **Discuss the price elasticity of demand (PED) without the aid of graphs. (26 marks)**
- **Evaluate how a monopolistic enterprise like Eskom can benefit from using the price elasticity of demand for their product. (10 marks)**

INTRODUCTION

Price elasticity of demand will determine the sensitivity a product when there is a change in price. ✓✓
(Accept any other correct relevant introduction.) (Max. 2)

BODY: MAIN PART

Perfectly elastic demand ✓
- The smallest change in price will result in an infinite change in quantity demanded. ✓✓
- It is also referred to as infinite elasticity. ✓
- This price elasticity is equal to infinity. ✓✓
- Producers cannot change the price but must find other ways to increase revenue. ✓✓

Perfectly inelastic demand ✓
- The demand will show no response to any or all price changes. ✓✓
- Price elasticity of demand is zero. ✓
- The implication is that a change in price will cause no change in the quantity that consumers demand. ✓
- Producers can increase prices to increase revenue as demand will not change. ✓✓

Unitary elastic demand✓
- Occurs when a specific change in price causes exactly the same change in demand. ✓✓
- If the price increases by 10%, the quantity demanded will increase by 10%. ✓✓
- The value of elasticity is equal to 1. ✓
- Producers may need to consider other methods to increase revenue. ✓✓

Relatively inelastic✓
- The value is less than 1 but more than 0. ✓
- Demand is very unresponsive to changes in price. To improve revenue, increase price only. ✓✓
- Goods and services with a relatively inelastic demand are things such as salt, medical care, tobacco products and petrol (fuel). ✓✓
- They all have an elasticity coefficient of less than 1, meaning that the quantity demanded is not highly sensitive to a change in the price. ✓✓ (Max. 26)

ADDITIONAL PART

Evaluate how a monopolistic enterprise like Eskom can benefit from using the price elasticity of demand for their product.

Positives

- Eskom is the sole supplier of electricity, meaning they are a monopoly. ✓✓
- They have full market power and will decide on prices they wish to charge, ergo they are price makers. ✓✓
- Electricity is a necessity amongst households and businesses, therefore consumers have no choice but to pay the price. ✓✓

Negative

- There are however, alternative products such as gas, solar and wind. ✓✓
- Should Eskom use price elasticity of demand before determining their market price, they will be able to charge a maximum price that consumers will be willing to pay and therefore ensure maximum revenue from consumers, whilst maintaining maximum demand. ✓✓
- If Eskom continues to charge more for electricity than the price of alternate goods, consumers will eventually sacrifice the convenience of electricity for a cheaper alternative. ✓✓ (Max .10)

(Accept any other correct relevant response.)

CONCLUSION

Price elasticity of demand speaks indirectly to the overall health of the economy in which a product is sold into and relates to both demographics (i.e., the size of the addressable population) and the income levels of the constituents that populate that consumption market. ✓✓ (Max. 2)

(Accept any other relevant correct higher order conclusion.)

[40]

TOTAL SECTION C: 40

TOTAL: 150