GAUTENG PROVINCE
EDUCATION
REPUBLIC OF SOUTH AFRICA

GAUTENG DEPARTMENT OF EDUCATION

PROVINCIAL EXAMINATION

JUNE 2017

GRADE 11

ECONOMICS

PAPER 2

MEMORANDUM

21 pages

GAUTENG DEPARTMENT OF EDUCATION

PROVINCIAL EXAMINATION

ECONOMICS
(Paper 2)

MEMORANDUM

SECTION A (COMPULSORY)

QUESTION 1

1.1 MULTIPLE-CHOICE QUESTIONS

1.1.1 C✓✓ Time

1.1.2 B✓✓ utility

1.1.3 A✓✓ elastic

1.1.4 D✓✓ Relative

1.1.5 C✓✓ downward-sloping

1.1.6 D✓✓ average revenue

1.1.7 A✓✓ Economies of scale

1.1.8 B✓✓ Goods market

(8 x 2) (16)

1.2 MATCHING ITEMS

1.2.1 H ✓ When something is in short supply or not readily available

1.2.2 F✓ The responsiveness of demand for good A to change if the price of good B changes

1.2.3 D✓ Any market that does not have all the characteristics of a perfect market

1.2.4 B✓ Powerful competitors try to take over each other's market share by progressively reducing prices

1.2.5 C✓ Barriers to enter the market

1.2.6 G✓ General business expenses that are not a part of what is produced

1.2.7 A✓ Fixed cost plus variable cost

1.2.8 E✓ Increasing average costs as the contribution of the variable inputs become more expensive

(8 x 1) (8)

1.3 ONE WORD ITEMS

1.3.1 Unit elasticity✓

1.3.2 Income elasticity of demand✓

1.3.3 Market share✓

1.3.4 Heterogeneous product/ differentiated products✓

1.3.5 Marginal revenue✓

1.3.6 Externalities✓

(6 x 1) (6)

TOTAL SECTION A: 30

SECTION B

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

QUESTION 2

2.1 2.1.1 Give TWO examples of complementary goods.

- Tennis ball and a tennis racket ✓
- Bread and butter ✓
- Shampoo and conditioner✓
  (Accept any relevant example.)

(2x1)(2)

2.1.2 How would decreasing relative prices influence people's standard of living?

- Decreasing relative prices is an indication that inflation is decreasing and that the people have more disposable income to spend. ✓✓

(1x2)(2)

2.2 DATA RESPONSE

2.2.1 Which company involved in a takeover mentioned above is a South African company and what industry are they involved in?

- SABMiller ✓
- Producing beer✓

(2)

2.2.2 Name TWO examples of oligopoly industries mentioned in the article above.

- The energy industry✓
- Banking industry✓
- Supermarket industry✓
- Telecoms and radio industries✓
- IT services✓
- Accountancy✓

(2)

2.2.3 Briefly describe cartels.

- An association of manufacturers or suppliers formed to maintain high prices and restrict competition. ✓✓
  (Accept any other relevant answer.)

(2)

2.2.4 What effect does "uncompetitive industries" have on the economy? Substantiate your answer.

- Uncompetitive industries have a negative effect on the economy. ✓✓
- Lack of competition leads to high prices being asked by producers as there is no competition. ✓✓
- It also leads to underproduction and wastage of resources. ✓✓
  (Accept any relevant answer.)

(4)

2.3 DATA RESPONSE

2.3.1 According to the diagram which profit is the highest?

- Accounting Profit✓✓

(2)

2.3.2 Give TWO examples of implicit costs.

- The wages he could have earned ✓
- The rent on his property he could have earned✓
  (Accept any relevant example.)

(2)

2.3.3 Explain explicit costs.

- Explicit costs are payments of money that have been made for the factors of production and other inputs that are used in the production process.✓ ✓
- Explicit costs are the costs of employing factors of production from outside the business.✓✓
  (Accept any relevant answer.)

(2)

2.3.4 Why is the implicit cost only calculated by economists and not accountants?

- Implicit cost are the costs of using factors of production that are owned by the entrepreneur. ✓✓
- The cost of using the owners' factors of production rather than using them from a source outside the firm ✓✓
- The owner's opportunity cost is taken into account. ✓✓ **(2 x 2)(4)**

2.4 Distinguish between long run costs and short run costs.

Long run cost

- It is the period of time in which the business is able to increase all of its output at will, none of the factors of production are fixed. ✓✓
- It is not only limited to increasing variable input. ✓✓
- The period in which there are no fixed inputs, all the inputs are variable ✓✓
- In the long run, firms are all trying to produce at a level that will allow them to experience economies of scale. ✓✓
  (Accept any relevant answer.)
  (Max 4 Marks)

Short run cost

- The period of time during which the business is faced with at least one of its production factors being fixed. ✓✓
- One of the inputs are unable to be increased. ✓✓
- Fixed inputs do not change in the short run, variable inputs change. ✓✓
- If a firm wants to increase production in the short run, it can do so only by increasing the number of labourers it employs. ✓✓
  (Accept any relevant answer.)
  (Max 4 Marks)

(2 x 4) (8)

2.5 Why is the elasticity of demand important to producers?

- Tells a producer that for every action there is a reaction. ✓✓
- By studying price elasticity of demand, we can predict what the change in price will be for the producers. ✓✓
- Price elasticity of demand is useful to help firms decide how to increase their total revenue. ✓✓
- To increase its total revenue the producer can (1) raise the price to get more revenue per product; ✓✓ and (2) drop the price to increase the quantity sold. ✓✓
- If the buyers are sensitive to the price (elastic demand), they will buy more if the price drops, ✓✓ so the producers should drop the price. ✓✓
- If the buyers are not sensitive to price (inelastic demand) they will not buy much less even if the price goes up, ✓✓ so the producers should increase the price. ✓✓
- To increase sales, raise the price when the demand is inelastic, ✓✓ or drop the price when the demand is elastic. ✓✓
- Producers want to know how sensitive the market supply is to a change in the price of the product. ✓✓ **(4 x 2) (8)**

[40]

QUESTION 3

3.1 3.1.1 Give TWO characteristics of a perfect market.

- Many sellers ✓
- No control over the price / price taker✓
- Homogenous product✓
- No barriers to entry and exit✓
- Complete information✓
- No collusion✓
- Unregulated market✓
  (Any relevant answer.)

(2 x 1) (2)

3.1.2 Why would a producer of a product with a unitary price elastic demand not use price to increase profits?

- The producer will not increase price as the demand will equally reduce and no additional revenue will be generated.✓✓
  (Accept any relative answer.)

(1 x 2) (2)

3.2 DATA RESPONSE

3.2.1 Give the value for A and explain your answer.

- A=20 ✓
- Fixed costs remain constant irrespective of the output. ✓

(2)

3.2.2 Give any TWO examples of fixed costs.

- Rentals✓
- Insurance premiums✓
- Loan payment✓
  (Accept any relevant example.)

(2)

3.2.3 Why do variable costs change?

- Variable costs change with output because when output is produced, more of a particular input factor has been used more, for example electricity, labour.✓✓
- If less has been produced, less of that input has been used. ✓✓

(2)

3.2.4 Calculate the value of B. Show all calculations.

B= $\frac{\Delta TC}{\Delta Q}$ ✓

= $\frac{3}{1}$✓

=3✓✓

(4)

3.3 DATA RESPONSE

3.3.1 What relationship does McDonald's Big Mac have with the fries and the soda drink?

- They are complementary products.✓

(1)

3.3.2 Explain what complement or complementary goods are?

- They are different goods that are used together to satisfy a specific need.✓✓

(2)

3.3.3 What will happen to the demand for fries if the price of the Big Mac burger decreases? Substantiate your answer.

- The demand for fries will increase✓
- When the price of the Big Mac burger decreases the demand for Big Mac burgers will increase.✓✓
- As fries are consumed with the Big Mac burger and more burgers are demanded, more fries will be demanded✓✓
  (Accept any relevant answer.)

(3)

3.3.4 The price of a Big Mac burger is R23.00 and the price of a Burger King Whopper burger is R25.00. Explain the relative prices of the burgers and if I choose the Big Mac burger what will the Burger King Whopper burger be?

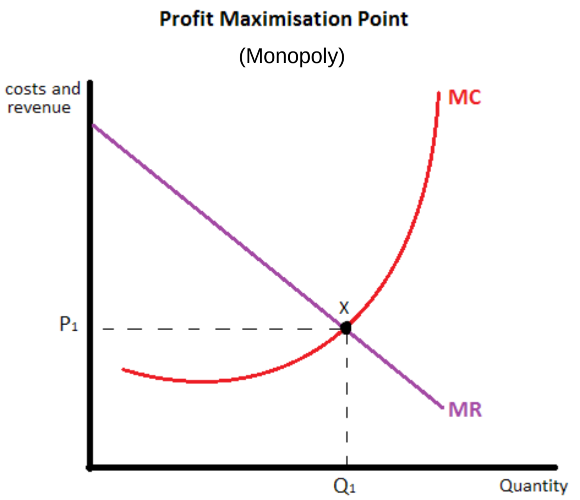
- The Big Mac burger is relatively cheaper than the Whopper burger.✓✓
- A relative price is a price of a good or service relative to the price of another good or service.✓✓
- If I choose the Big Mac burger the Whopper burger becomes the opportunity cost✓✓
  (Any relevant answer.)

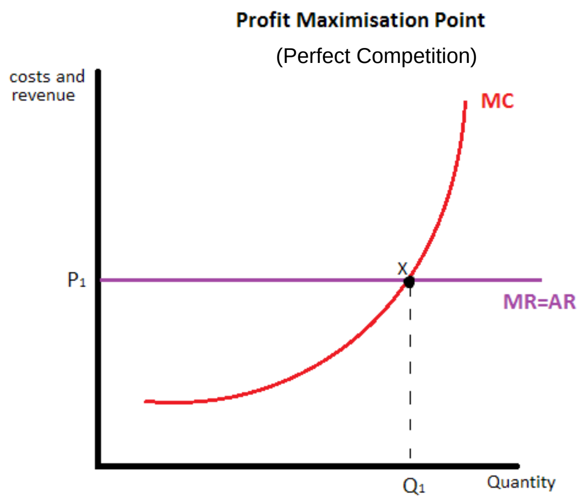
(2 x 2) (4)

3.4 Discuss the objectives of a business.

- Survival: ✓Initially the objective of the firm will be to merely survive.✓✓ New firms face constraints that could hamper their progress and success. ✓✓
- Profit maximising:✓ Making as much profit as possible. ✓✓ Profit is the difference between the revenue and the cost of the business. ✓✓
- Revenue maximising:✓ Some businesses have very high costs ✓✓ if they have a very large workforce, ✓ large business premises, etc ✓.
- Sales maximising:✓ Sales refer to the number of goods or services sold. ✓✓ Reaching as many customers as possible can increase the size and popularity of the business although the profit may fall if lower prices have to be charged to reach this objective. ✓✓
  (Accept any relevant answer.) **(4 x 2) (8)**

3.5 Draw a fully-labelled graph to explain how the concept MR and MC can be used to determine profit maximisation.





Mark allocation for graph:

Labelling of axis	1 mark
Correct drawing of MC curve	1 mark
Correct drawing of MR curve	1 mark
Indicating profit maximisation point	1 mark

(Maximum 4 marks for graph)

- Firms can use the total revenue – total cost approach to determine the output level that will allow them to maximise their profit. ✓✓
- Firms want to know exactly how many units they should produce in order to maximise their profit and so they can use the marginal revenue – marginal cost approach✓✓
- The profit of a firm will be maximised when the marginal revenue is equal to marginal cost (MR=MC) ✓✓
- The quantity that a firm should produce in order to maximise its profit is determined where the MC curve intersects the MR curve. ✓✓At this point, the last unit costs exactly the amount of money that it would bring in✓✓
  (Any relevant answer) (Max 4 marks for explaining graph) **(2 x 4) (8)**

[40]

QUESTION 4 **40 MARKS**

4.1 4.1.1 Name any TWO types of profits that a business can make.

- Accounting profit✓
- Normal profit✓
- Economic profit✓

(2x1)(2)

4.1.2 How do product and factor markets relate to one another?

- Factors of production are bought by producers from the factor market to produce goods and services which are sold in the product market.✓✓

(1x2)(2)

4.2 DATA RESPONSE

4.2.1 Name the product with the highest price inelasticity of demand.

- Tequila✓

(1)

4.2.2 Explain perfectly inelastic demand.

- Perfect inelastic demand has an elasticity coefficient of zero and is depicted by a vertical line. ✓✓
- It indicates that a change in the price has no effect on the quantity demanded.✓✓

(2)

4.2.3 Apples have a price elasticity of - 0.58. What elasticity does this indicate? Substantiate your answer.

- Apples have an inelastic demand as -0.58 is smaller than 1.✓
- The demand for a product is said to be inelastic, if the quantity demanded by consumers does not respond strongly to a change in price.✓✓

(3)

4.2.4 How do we explain the price elasticity of demand of cigarettes.

- Cigarettes are habit-forming substances.✓✓
- A change in the price has a relatively small impact on the quantity demanded. ✓✓
- Consumers are addicted to the product. They want to continue their consumption of the product at the higher price if they can possibly afford it. ✓✓
- The demand for cigarettes tends to be price inelastic.✓✓

(2x2)(4)

4.3.1 DATA RESPONSE

4.3.1 Give the formula for ATC.

ATC = $\frac{TC}{Q}$ ✓✓

(2)

4.3.2 Why is the AVC always below the ATC?

- ATC is Average Total Cost and includes average fixed cost and average variable cost. ✓✓

(2)

4.3.3 What is indicated by point F on the graph?

- Shutdown point✓✓ **(2)**

4.3.4 Explain the shapes of the ATC, AVC and MC.

- The MC, AVC and ATC are U-shaped. ✓✓
- As the number of units increase from zero, they start at high values ✓✓ decline at a decreasing rate, reach minimum points✓✓ and then increase at increasing rates. ✓✓
- Marginal cost also cuts average total cost and average variable cost at their minimum values✓✓
(Accept any relevant answer.)

(2x2)(4)

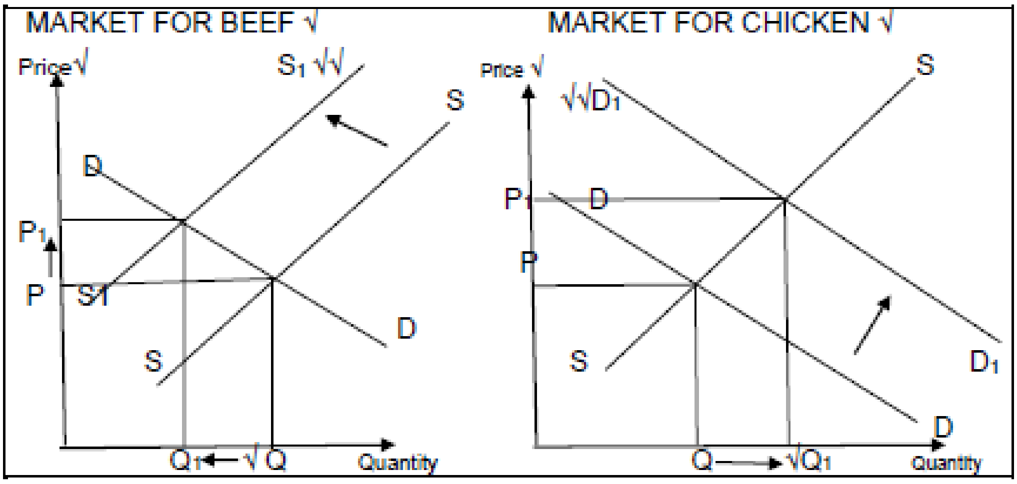
4.4 Briefly explain how oligopolies can increase their market share.

- Oligopolies will use non-price competition to increase market share. ✓✓
- Oligopoly firms tend not to compete in terms of the price of products. ✓✓
- They will use product branding and marketing to gain market share. ✓✓
- Firms in an oligopoly are interdependent. This means that each firm has to consider how the other firms in the industry will react to any decision made.✓✓
- Businesses try to avoid price competition as this could lower the profitability of the different businesses.✓✓
- Forms of non-price competition include:
  - Building brand loyalty✓
  - Extended shopping and business hours✓
  - Doing business via the internet✓
  - After-sales service✓
  - Offering additional services✓
  - Loyalty rewards for customers✓
  - Door-to-door deliveries ✓

(Accept any relevant answer. Examples only 1 marks each and max 2 marks)

(4x2)(8)

4.5 **Use a graph to illustrate the effect of an increase in the price of beef when consumers can substitute beef with chicken**.



(Max 4 marks for each graph) (2 x 4) (8)

[40]

TOTAL SECTION B: 80

SECTION C

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

STRUCTURE OF THE ESSAY	MARK ALLOCATION
Introduction	Max. 2
Body: • Main part: Discuss in detail / In depth discussion / Examine / Critically discuss / Analyse / Compare / Evaluate / Distinguish / Explain / Assess / Debate. • Additional part: Give own opinion / Critically discuss / Evaluate / Critically evaluate / Draw a graph and explain / Use the graph given and explain / Complete the given graph / Calculate / Deduce / Compare / Explain / Distinguish / Interpret / Briefly debate / How? / Suggest / Use the information and argue / Debate / Evaluate	Max. 26 Max. 10
Conclusion Any relevant higher order conclusion that should include: • A brief summary of what has been discussed / analysed without repeating facts already mentioned in the body • An opinion or value judgement on the facts discussed • Additional support information to strengthen the discussion / analysis • A contradictory viewpoint with substantiation, if required • Recommendations	Max. 2
TOTAL	**40**

QUESTION 5

"**Price elasticity of supply will always be positive because of the law of supply."**

- **With the aid of graphs describe the various categories of price elasticity of supply. (26 marks)**
- **Explain the price elasticity of supply for maize in the short and long term. (10 marks)**

[40]

INTRODUCTION

Price elasticity of supply measures how sensitive the market supply is to change in the price of a product. ✓✓
(Accept any relevant definition.)

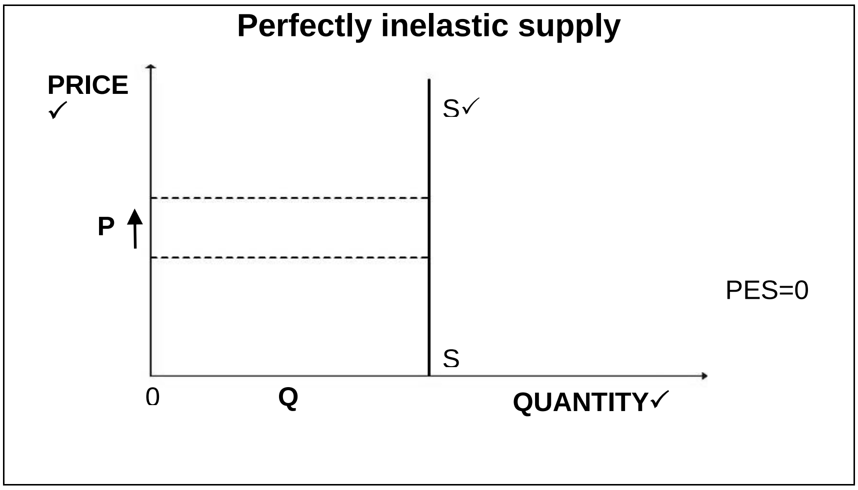
(Max 2)

BODY: MAIN PART

Price elasticity of supply is composed of the following categories:

Perfectly inelastic supply ✓

Explanation



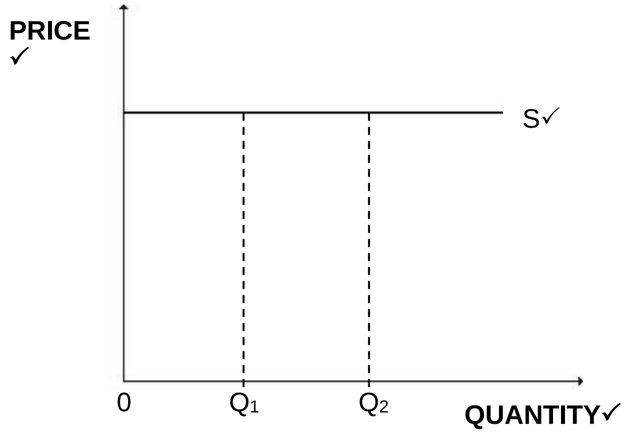
(max 6 incl. graph)

- Any % change in price will have no effect on quality supplied ✓✓
- Producers are unable to increase supply at all
- PES = 0 ✓✓
- Supply curve is a vertical curve ✓✓

Perfectly elastic supply ✓

- Even the smallest change in price will cause an infinitely large change in quantity supplied. ✓✓
- PES =∞ ✓✓
- Supply curve is horizontal. ✓✓

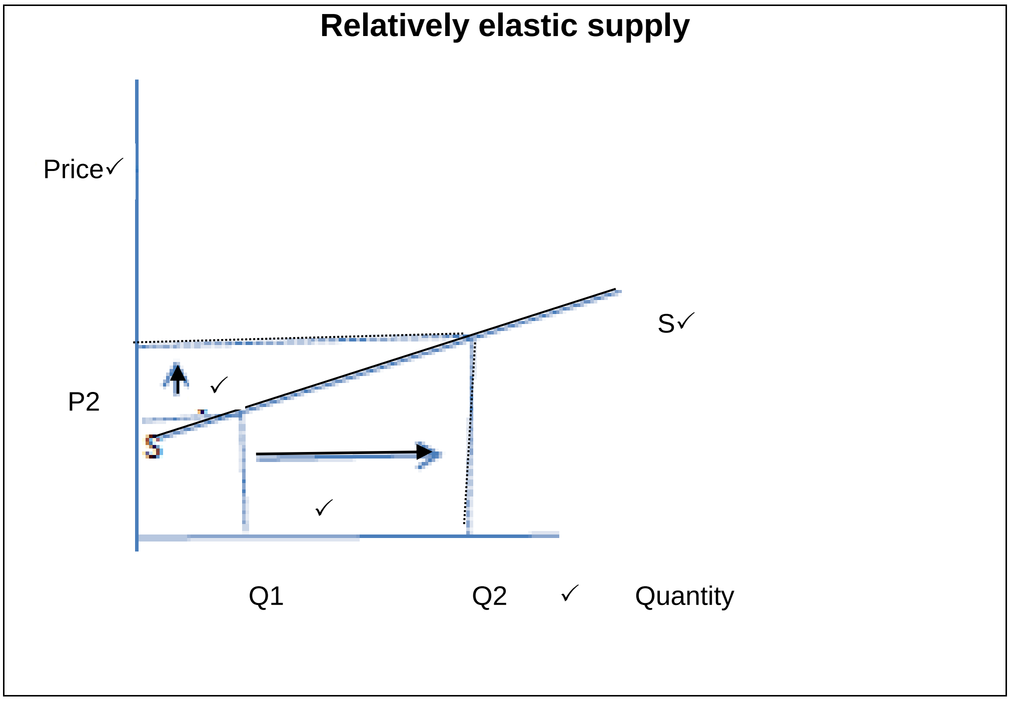
Perfectly elastic supply



(max 6 incl. graph)

Relatively elastic supply ✓

- Percentage change in quantity supplied is more than the % change in price ✓✓
- Producers are easily able to increase production. ✓✓
- PES> 1. ✓✓
- Supply curve is flat, the slope of the graph starts on the y-axis, at a level above zero. ✓✓

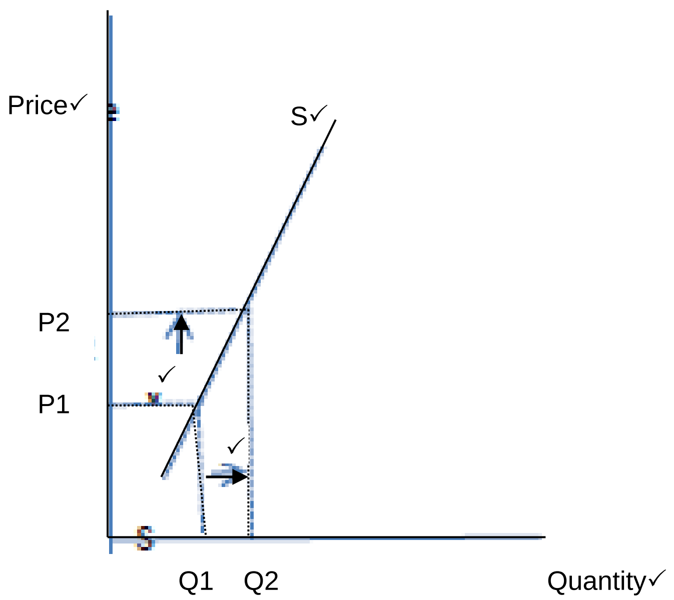


(max 6 incl. graph)

Relatively inelastic supply ✓

- Percentage change in the quantity supplied is less than the percentage change in price √√
- Producers struggle to adapt to the price increase. √√
- PES < 1. √√

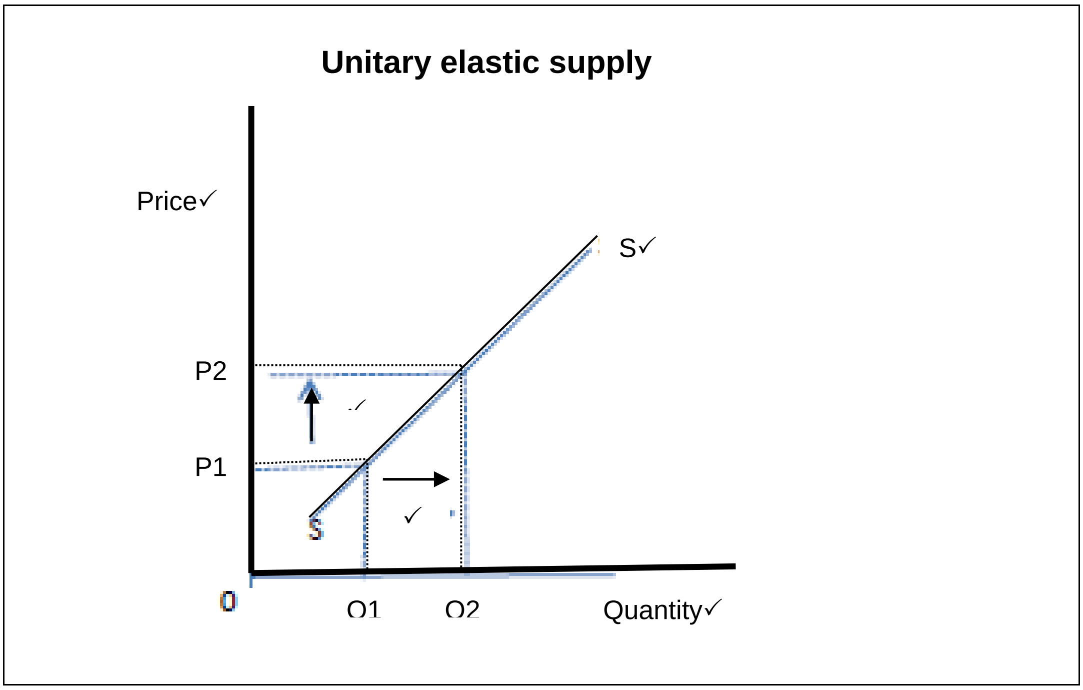
Relatively inelastic supply



(max 6 incl. graph)

Unitary elastic supply ✓

- A change in price will cause exactly the same change in the quantity supplied ✓✓
- The supply curve looks exactly like the normal supply curve that slopes upwards from left to right at 45 ° angles. ✓✓
- PES = 1. ✓✓



(max 6 incl. graph) (26)

BODY: ADDITIONAL PART

Explain the price elasticity of supply for maize in the short and long term.

Short term

- In the short run most supply curves are inelastic ✓✓ as suppliers do not have sufficient time to respond to price change. ✓✓
- If the maize price increases, farmers need a full growing season to adjust their production to the price increase. ✓✓
- A fall in price will not necessarily result in a rapid reduction in the quantity supplied. ✓✓
- Farmers with maize will probably still be forced to harvest and sell maize at the lower price rather than lose all their income✓✓

Long term

- The price elasticity becomes more elastic in the long term. ✓✓
- In the long term farmers can adjust their levels of production in response to changes in price.✓✓

(Accept any relevant higher order answer.)

(Max 10)

CONCLUSION

The key to predicting elasticity of supply is knowing whether the producers are able to increase production.✓✓
A producer's ability to adapt to price changes depends on the cost, availability and mobility of factors of production. ✓✓

(Accept any relevant conclusion.)

(Max 2)

[40]

QUESTION 6

"The behaviour of economic participants can be well explained through market structures."

- **Compare in detail, the features of a monopoly with those of monopolistic competition.** **(26 marks)**
- **Why would government support or license monopolies?** **(10 marks)**

[40]

INRODUCTION

Any market that does not have all the characteristics of a perfect market is called an imperfect market. This is also the case with monopolies and monopolistic markets. ✓✓

(Accept any relevant definition.)

(Max 2)

BODY: MAIN PART

CHARACTERISTICS	MONOPOLY	MONOPOLISTIC COMPETITION
Number of firms in an industry✓	A **single supplier** or firm ✓e.g. Eskom. ✓ There is no competition. One business in the market controls the supply of the goods and services. ✓✓	A **large number of firms or suppliers**✓e.g. KFC, Nandos and Tagos. ✓There is an element of competition. ✓✓
Product ✓	A **unique product** is produced. ✓ There are no close substitutes. ✓✓ The product cannot be easily replaced. ✓✓ Consumers have no choice in price and quality of the product. ✓✓	Differentiated products,✓ are similar but not identical. ✓✓ They are similar in that they satisfy the same needs of the consumer. ✓✓ There may be differences in packaging but the product is the same. ✓✓
Freedom to enter and exit The market ✓	There **are barriers to entry**. ✓ Entry into the market is completely blocked. ✓✓ The barriers are caused by patents and other forms of intellectual property rights. ✓✓	**Easy entry into the market**. ✓ There is complete freedom of entry and exit into the market. ✓✓
Slope of the demand curve ✓	**Downward sloping demand curve** for the firm ✓ and the same curve for the industry. ✓✓ It is also inelastic. ✓✓	**Downward sloping demand curve for the industry**,✓ and it is elastic. ✓✓
Control over price ✓	The firm is a **price maker** ✓ The monopolist is able to influence the market through changing the quantities it supplies to the market. ✓✓	**Firms have little control over the price.** ✓ Each business sells at its own price. ✓✓ since a single price, cannot be determined for the differentiated product✓✓
Relative market share ✓	Total market belongs to one firm. ✓✓	Relatively small share of the total market ✓✓
Information ✓	There is perfect knowledge and information is complete. ✓✓	Information is incomplete. ✓✓
	Max. 13	Max. 13

(HEADINGS AND EXAMPLES MAX 8 MARKS)

(26)

BODY: ADDITIONAL PART

Why would government support or license monopolies?

- To protect the intellectual skill and rights of the producer ✓✓
- Some products are very dangerous producing or providing the service; there needs to be a level of accountability. ✓✓
- To motivate the producer to continue with the skill, grow the company and employ more people ✓✓
- From the economic profits made, government can get more revenue in terms of tax. ✓✓
- To be able to monitor the company, especially if it provides an essential service like electricity, i.e. price, provision of electricity to all, e.g. in rural areas and the consistency in doing that ✓✓
  (Accept relevant correct explanations.)

(Max 10)

CONCLUSION

Both market structures tend to be inefficient because imperfect markets fail to allocate resources efficiently. ✓✓
(Accept any relevant higher order conclusion.)

(Max 2)

[40]

TOTAL SECTION C: 40

TOTAL: 150