



Province of the
EASTERN CAPE
EDUCATION

Iphondo leMpuma Kapa: Isebe leMundo
Provinsie van die Oos Kaap: Departement van Onderwys
Porafensie Ya Kapa Botjhabela: Lefapha la Thuto

NATIONAL SENIOR CERTIFICATE

GRADE 11

NOVEMBER 2025

ECONOMICS P2 MARKING GUIDELINE

MARKS: 150

This marking guideline consists of 21 pages.

SECTION A**QUESTION 1**

- 1.1 1.1.1 A ✓✓ (relatively elastic)
- 1.1.2 D ✓✓ (marginal revenue)
- 1.1.3 C ✓✓ (relative price)
- 1.1.4 A ✓✓ (fixed)
- 1.1.5 B ✓✓ (greenhouse)
- 1.1.6 D ✓✓ (capitalism)
- 1.1.7 C ✓✓ (soil erosion)
- 1.1.8 B ✓✓ (foreign direct investment) (8 x 2) (16)
- 1.2 1.2.1 B ✓ Products sold in a perfect market and pure oligopoly
- 1.2.2 E ✓ Additional receipts earned for every additional unit sold
- 1.2.3 G ✓ Only needed for what it can produce.
- 1.2.4 F ✓ The collection and often reprocessing of discarded materials for reuse.
- 1.2.5 I ✓ The period of time where at least one input factor is fixed
- 1.2.6 A ✓ Disputes international trade agreements
- 1.2.7 C ✓ Knowledge that has practical application for the daily survival of local communities
- 1.2.8 D ✓ Grouping together of countries to get more control over the global economy. (8 x 1) (8)
- 1.3 1.3.1 Normal profit ✓
- 1.3.2 Market price ✓
- 1.3.3 Utility ✓
- 1.3.4 Biodiversity ✓
- 1.3.5 Non-renewable resources ✓
- 1.3.6 Basel convention ✓ (6 x 1) (6)
- [30]**

TOTAL SECTION A: 30

SECTION B

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

QUESTION 2: MICROECONOMICS**40 MARKS – 30 MINUTES**

2.1 Answer the following questions.

2.1.1 **Name any TWO revenue curves in the long run.**

- Marginal revenue curve ✓
- Average revenue curve ✓
- Total revenue curve ✓

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

2.1.2 **Why is the demand of habit-forming goods price inelastic?**

- Habit forming goods have an inelastic demand because they are addictive and may cause withdrawal symptoms when one stops using them. ✓✓

(1 x 2) (2)

2.2 **DATA RESPONSE**

2.2.1 **Identify the curve that represents long run average costs in the diagram above.**

- L-ATC ✓

(1)

2.2.2 **Name any ONE component of total costs.**

- Fixed costs ✓ / Variable costs ✓

(Accept any other correct relevant response) (2)

2.2.3 **Briefly describe the term *diseconomies of scale*.**

- Diseconomies of scale occur when a firm's average cost per unit increases as its production output increases. ✓

(2)

2.2.4 **What do economies of scale imply?**

- Economies of scale imply that, as a firm increases its production output, the cost per unit of production decreases due to spreading fixed costs over a larger number of units and gaining advantages in purchasing and production efficiency. ✓✓
- Larger scale operations can lead to greater efficiency and lower cost per unit. ✓✓

(2)

2.2.5 **How do firms benefit from economies of scale?**

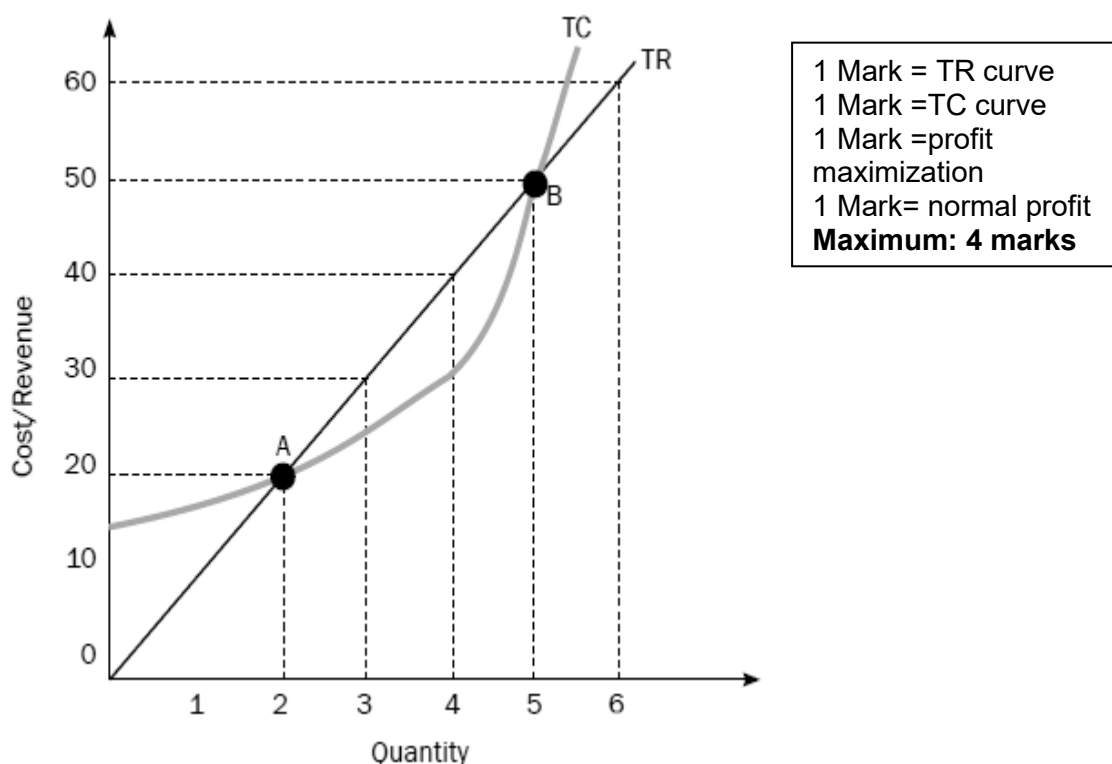
- Firms' reduced per-unit costs translate directly to higher profit margins and greater efficiency. ✓✓
- Lower costs can enable firms to offer more competitive prices, attracting a larger customer base. ✓✓
- Firms can lower prices to gain market share or compete with rivals. ✓✓
- Larger firms can leverage economies of scale to achieve better reach and impact with their marketing campaign. ✓✓

(Accept any other correct and relevant response) (2 X 2) (4)

2.3 DATA RESPONSE

- 2.3.1 Identify the price of luxurious cherry loaf before the increase. (1)
 • R30 ✓
- 2.3.2 Identify an inferior product in the table above. (1)
 • Basic white bread ✓
- 2.3.3 Briefly describe the term *price elasticity of demand*. (2)
 • Price elasticity of demand refers to the responsiveness of the quantity demanded to a change in price. ✓✓
 (Accept any other correct relevant response)
- 2.3.4 Why is the price elasticity of demand for luxurious cherry loaf different to the price elasticity of basic white bread? (2)
 • Basic white bread is a staple food item for most households and people need bread for daily consumption which makes its demand inelastic. Luxurious cherry loaf is a luxury good and not essential for survival; therefore its demand is elastic. ✓✓
- 2.3.5 Calculate the price elasticity of demand (PED) for the basic white bread. Show ALL calculations. (4)
 $\% \text{change in quantity demanded} / \% \text{change in price}$
 $\% \text{change in quantity demanded} = 1150/1200 \times 100 = 96 \checkmark \checkmark$
 $\% \text{change in price} = 17/15 \times 100 = 113$
 $96/113 = 0,85 \checkmark \checkmark$ (2 x 2)

- 2.4 With the aid of a graph, explain how a firm can determine its profit maximisation level with the use of TR-TC approach.



- When $TC > TR$ the business makes economic loss and when $TR > TC$ it makes economic profit. ✓✓
- At point A and B the firm makes normal profit because that is where $TR=TC$. ✓✓
- Maximum profit is achieved at unit 4 because that is where the gap between TR and TC is the greatest. ✓✓
- Once the maximum profit is achieved, profits start to decrease with the next unit of output. ✓✓
- Therefore the firm should produce 4 units, because that is where its profits are maximised. ✓✓ (4 x 2) (8)

2.5 How is the knowledge of price elasticity of demand beneficial to producers?

- It tells a producer that for every action there is a reaction, thereby creating an awareness in producers of their own actions. ✓✓
- By studying the price elasticity of demand, producers can predict what the influence of change in price will be to the consumers, thereby predicting the behaviour of consumers. ✓✓
- Therefore, the price elasticity of demand is useful to help producers decide how to increase their total revenue. ✓✓
- To increase its total revenue, the producer can either raise the price to get more revenue per product or drop the price to increase the quantity sold. ✓✓
- In studying PED the producer receives information about the sensitivity levels of consumers. ✓✓

Allocate a maximum of 2 marks for mere listing of facts. (4 x 2) (8)
[40]

QUESTION 3: CONTEMPORARY ECONOMIC ISSUES**40 MARKS – 30 MINUTES****3.1 3.1.1 Name any TWO brown environmental issues.**

- Waste pollution ✓
- Water and sanitation ✓
- Air pollution ✓

(2 x 1) (2)

3.1.2 How are developing countries negatively affected by globalisation?

- Globalisation affects developing countries negatively because it increases inequality, environmental damage, and economic vulnerability. ✓✓

(Accept any correct relevant response)

(1 x 2) (2)

3.2 DATA RESPONSE**3.2.1 Identify the need for government to impose fishing quotas, according to the article above.**

- Marine resources are dwindling/decreasing. ✓

(1)

3.2.2 Name ONE strategy which government plans to use to create alternative jobs for the communities.

- Planning a new harbour ✓
- Promoting ecotourism ✓

(1)

3.2.3 Briefly describe the term *quota*.

- A quota is the limited number or quantity of something which is officially allowed. ✓✓

(Accept any other correct relevant response)

(2)

3.2.4 Outline ONE reason why the poor fisherman will not benefit from these quotas.

- The cost of having a quota is very high. ✓
- They do not have the same infrastructure as the larger companies. ✓
- The quota is not big enough to cover costs and maintain a decent standard of living. ✓

(Accept any other relevant correct response)

(2 x 1) (2)

3.2.5 Explain how marine resources can be prevented from becoming extinct.

- Stop the over consumption of fish. ✓✓
- Stop the pollution of oceans that causes the death of some fish species. ✓✓
- Stop big foreign ships from cleaning out the ocean of fish (trawling). ✓✓
- We should encourage fish breeding programmes. ✓✓

(Accept any other correct relevant response)

(2 x 2) (4)

3.3 DATA RESPONSE

- 3.3.1 **Identify the type of economy in which the primary sector will contribute the most to GDP.**
• Slowly developing economy ✓ (1)
- 3.3.2 **Name any ONE fast developing country in Africa.**
• South Africa ✓ (1)
- 3.3.3 **Briefly describe the term *North -South Divide*.**
• North-South divide refers to the difference in wealth between the rich countries (developed) of the world in the North and the poor countries (developing) in the South ✓✓
(Accept any other correct relevant description) (2)
- 3.3.4 **Why is it important to protect new technologies and patents?**
• New technologies has the potential to add value to certain developing processes. ✓✓
• New technologies that are used in information and computer technology will bring better engines and new crops. ✓✓
• Patent on these new technologies give companies on legal right to any income received. ✓✓
• Patent rights on new products or production will increase profits. ✓✓ (2)
- 3.3.5 **Why is it beneficial for a country to engage in free trade?**
Free trade has:
• enabled consumers to access higher quality and low-priced goods. ✓✓
• increased economic growth and helped improve the standard of living. ✓✓
• improved efficiency and innovation in the production of goods and services. ✓✓
• promoted competition and fairness, resulting in more jobs being created. ✓✓
(Accept any other relevant correct answer) (2 x 2) (4)
- 3.4 **Distinguish between *BRICS* and *G20* trade groupings.**
BRICS
• A trade block consisting of prominent emerging economies of the world, such as **Brazil, Russia, India, China, and South Africa.** ✓✓
• Member countries comprise the following: Brazil, Russia, India, China and South Africa. ✓✓
• In 2024, the group expanded to include Egypt, Ethiopia, Iran, Saudi Arabia, and the United Arab Emirates. ✓✓
• BRICS is a geo-political block formed to increase the influence of its members on the global stage. ✓✓
• It is often seen as a counterweight to the traditional Western-dominated institutions like the G7. ✓✓
• The group focuses on economic cooperation, promoting a more “multipolar” world order, and establishing new financial institutions, such as the New Development Bank, as alternatives to the IMF and World Bank. ✓✓ (2 x 2)

G20 countries

- The G20 is a broader forum comprising 19 of the world's largest economies, plus the European Union and the African Union. ✓✓
- The purpose of the agreement is to gain access to the northern agricultural markets. ✓✓
- Its members include both developed and developing nations, such as the U.S., China, Germany, Japan, India, and Brazil. ✓✓
- South Africa is one of the member countries of G20 and is a host in November 2025. ✓✓
- Its primary objective is to address major issues related to the global economy, including financial stability, climate change, sustainable development, and trade. ✓✓
- Unlike BRICS, its goal is to coordinate policy and strengthen the existing international economic architecture, not necessarily to challenge it. ✓✓

(Accept any other correct relevant response)

(A maximum of 4 marks will be given for mere listing.)

(2 x 2)

(8)

3.5 Examine the negative impact of globalisation on the South African economy.

- Globalisation has led to job losses, particularly in industries unable to compete with cheaper imports, and exacerbated income inequality. ✓✓
- The opening up of trade to international competition has led to job losses in industries like textiles and clothing which struggled to compete with cheaper imports from countries with lower production costs. ✓✓
- Exposure to global markets can put downward pressure on wages, especially for low-skilled and semi-skilled workers, as companies seek to remain competitive. ✓✓
- Globalisation can exacerbate income inequality, with those who have access to education, skills and technology benefiting more than those who do not. ✓✓
- Increased reliance on global markets can make the South African economy vulnerable to external shocks and fluctuations in global demand. ✓✓
- The influx of people from rural areas seeking opportunities in urban centres has placed strain on infrastructure and resources in major cities. ✓✓

(Accept any other relevant correct response)

(Allocate a maximum of 2 marks for a mere listing of facts/examples.)

(4 x 2)

(8)

[40]

QUESTION 4: MICROECONOMICS AND CONTEMPORARY ECONOMIC ISSUES
40 MARKS – 30 MINUTES**4.1 4.1.1 Name any TWO objectives of a business.**

- Specific ✓
- Measurable ✓
- Acceptable ✓
- Realistic ✓
- Time specific ✓

(2 x 1) (2)

4.1.2 How does development of technology cause globalisation?

- Development of technology provides **infrastructure and tools** that make globalisation possible, but also increasingly inevitable and pervasive. ✓✓

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

4.2 DATA RESPONSE**4.2.1 Identify the type of elasticity in the picture above.**

- Cross elasticity of demand ✓

(1 x 1) (1)

4.2.2 Name any type of price elasticity of demand.

- Perfectly elastic demand ✓
- Relatively elastic demand ✓
- Unitary elastic demand ✓
- Perfectly inelastic demand ✓
- Relatively inelastic demand ✓

(1 x 1) (1)

4.2.3 Briefly describe the term *price elasticity of supply*.

- Price elasticity of supply refers to the responsiveness of quantity supplied to a change in price. ✓✓

(2)

4.2.4 Why does the demand for normal goods increase when income levels increase?

- The demand for normal goods increases when income increases because when consumers become wealthier, they often choose to upgrade their consumption from lower-quality or cheaper alternatives to higher-quality versions of the same product. For example, someone whose income increases might switch from generic brands to name brands, or from public transport to a personal car.

(Accept any other correct relevant response) (2)

4.2.5 Explain why price elasticity of demand has a negative sign.

- The price elasticity of demand has a negative sign due to the inverse relationship between the price and the quantity demanded. ✓✓
- The law of demand states that if the price of a product increases while all the other factors remain constant, then the quantity demanded will decrease, hence the PED is negative. ✓✓

(2 x 2) (4)

4.3 DATA RESPONSE

4.3.1 Identify ONE consequence of globalisation from the information above.

- Financial crisis ✓
- Labour exploitation ✓ (1)

4.3.2 Which global institution assists countries in financial crisis?

- International Monetary Fund ✓ (1)

4.3.3 Briefly describe the term *globalisation*.

- Globalisation refers to the integration and interaction of world economies. ✓✓
(Accept any other correct relevant response) (2)

4.3.4 Explain standardisation as a cause of globalisation.

- Standardisation helps to remove the differences on how products across countries are manufactured and creates a common framework for a physical box, a quality certification, or a digital protocol. ✓✓
- Standardisation allows diverse countries and companies to interact, trade, and innovate as if they were part of a single, integrated system. ✓✓
(Accept any other correct relevant response) (2)

4.3.5 How does international integration positively impact economic growth?

- International integration, through the reduction of trade barriers, allows countries to specialise in the production of goods and services where they have a **comparative advantage**. ✓✓
- This leads to a more efficient global allocation of resources, greater economies of scale, and enhanced competition that drives innovation. ✓✓
- Productivity rises, prices for consumers fall, and the total volume of global trade and output expands, contributing to overall economic growth. ✓✓
- Economic integration, especially in the form of regional blocks like the European Union (EU) or the African Continental Free Trade Area (AfCFTA), creates a larger single market. ✓✓
- This expanded market size is more attractive to investors, enables domestic firms to achieve economies of scale, and enhances the collective bargaining power of member countries in global negotiations. ✓✓
(Accept any other correct relevant response) (2 x 2) (4)

4.4 **Briefly explain the trend of the marginal cost curve.**

- The marginal cost (MC) curve typically exhibits a U-shaped pattern. ✓✓
- Initially, as production increases, the MC curve slopes downward, indicating decreasing marginal costs. ✓✓
- The cost of producing each unit decreases due to economies of scale and specialisation. ✓✓
- Eventually, the MC curve begins to slope upward, reflecting increasing marginal costs as diminishing returns. ✓✓
- This is a result of additional units of production which require more resources or become less efficient to produce. ✓✓
- This U-shaped pattern of the MC curve illustrates the optimal production level where marginal cost equals marginal revenue, maximising profit for the firm in competitive markets. ✓✓

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

4.5 **What are the advantages of promoting globalisation?**

- Globalisation reduces barriers to international trade, allowing countries to specialise in producing goods and services where they have a **comparative advantage**. ✓✓
- This leads to greater efficiency, lower costs, and a wider variety of goods and services for consumers. ✓✓
- For example, countries that have embraced globalisation, such as Vietnam and China, have experienced rapid economic growth and have lifted millions out of poverty by integrating into global supply chains. ✓✓
- Globalisation encourages the flow of foreign direct investment, which is crucial for development. FDI not only brings capital into a country, but also facilitates the transfer of technology, management expertise, and new business practices. ✓✓
- This influx of resources helps to modernise industries, create jobs, and stimulate overall economic activity. ✓✓
- The inter-connectedness of global markets accelerates the spread of knowledge and technology. ✓✓
- Companies must innovate to compete globally; this competition drives research and development.
- Global competition forces businesses to lower their prices to remain competitive, directly benefiting consumers. ✓✓

(Accept any other correct relevant response)

(A maximum of 2 marks may be allocated for a mere listing of facts.)

(4 x 2) (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.

QUESTION 5: MICROECONOMICS

40 MARKS – 40 MINUTES

- Discuss in detail the demand and supply relationships with the aid of graphs (substitutes and compliments). (26)
- Why is the factor market necessary in the economy? (10)

INTRODUCTION

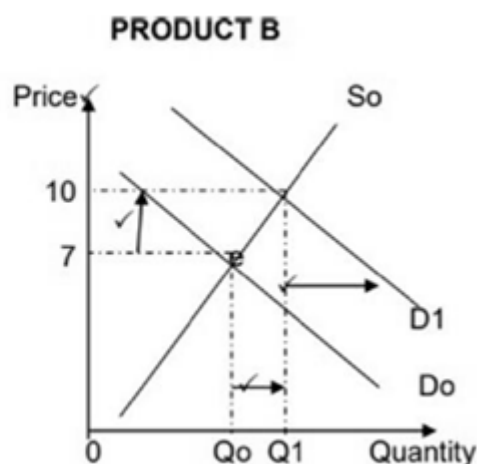
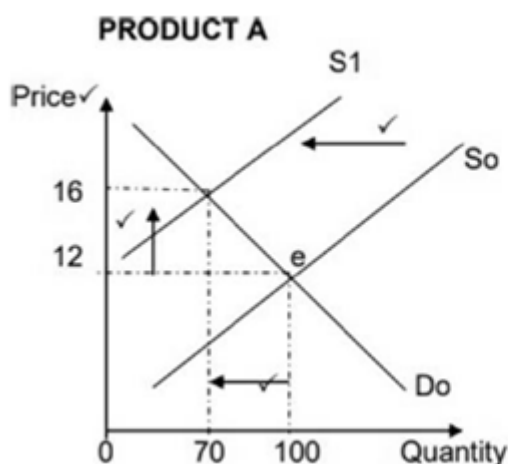
Substitutes are products or services that can be used in place of one another to satisfy a similar need or desire for consumers, while complements are products or services that are typically consumed together to satisfy a particular want or need. ✓✓
(Accept any other correct relevant introduction)

BODY: MAIN PART

Substitutes

- An increase in the price of a product increases the demand and the price of the substitute product, ceteris paribus, and vice versa. ✓✓
- The consumer can switch between the two products and maintain the same degree of satisfaction. ✓✓

1 Mark = shift of ss in product A
1 Mark = change in price in product A
1 Mark = shift of the demand curve in product B
1 Mark = change in quantity demanded in product B

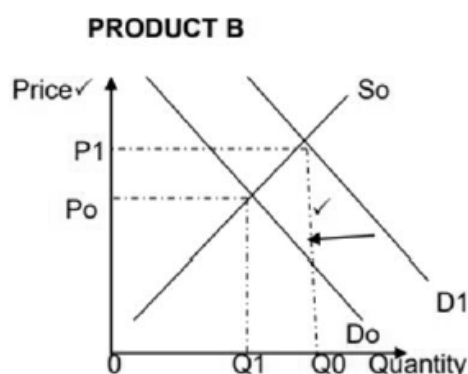
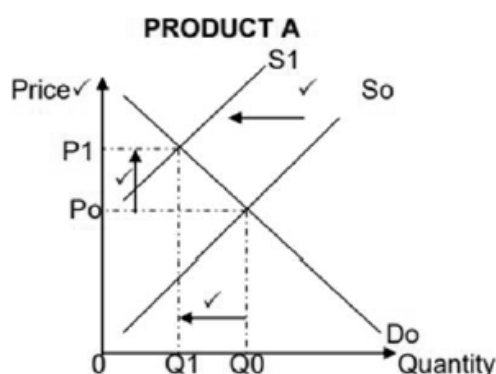


- The above graphs show the markets for two products, Product A and Product B. ✓✓
- The equilibrium price of Product A is R12, while that of Product B is R7. ✓✓
- Assume there is a big decrease in the supply of Product A (So to S1) because of a severe drought. ✓✓
- This leads to an increase in Product A's price to R16. ✓✓
- Some consumers will switch from Product A to Product B. ✓✓
- According to the law of demand, a decrease in the price of a product will increase the quantity of the product demanded. ✓✓
- The law of demand states that when prices increase (from R12 to R16), the quantity demanded will decrease (from 100 to 70). ✓✓
- Some consumers will switch from Product A to Product B. ✓✓
- According to the law of demand, a decrease in the price of a product will increase the quantity of the product demanded. ✓✓
- As more of the product is used, households will also use more of the complement. ✓✓

Complimentary goods ✓

- According to the law of demand, a decrease in the price of a product will increase the quantity of the product demanded.
- As more of the product is used, households will also use more of the complement. ✓✓

1 Mark = shift of ss in product A
 1 Mark = change in price in product A
 1 Mark = shift of the demand curve in product B
 1 Mark = change in quantity demanded in product B



- An increase in the price of Product A decreases the demand and the price of the complementary product, Product B, ceteris paribus, and vice versa. ✓✓
- Consumers will buy less of Product A. This shifts the demand curve to the left from D1 to D0 and, there is a decrease in the equilibrium price of Product B ✓✓
- They can lose business and revenue if the demand for their products falls without them being aware that it is going to happen. ✓✓
- Therefore, they need to respond to the price changes that occur to other products that could affect them quite quickly. ✓✓

ADDITIONAL PART**Why is the factor market necessary in the economy?**

- The necessity of the factor market in the economy lies in the significance of the factors of production it provides in the economy, without which the economy would not function. ✓✓
- Capital is integral in the production of goods and services in the economy as it is used to produce consumer goods. ✓✓
- Without consumers offering labour in the factor market, they would not earn a living to consume goods and services in the economy, and the buyers of labour would not be able to offer the labour intensive goods in the economy. ✓✓
- Entrepreneurship thrives in the factor market and that is why it is necessary as entrepreneurs provide crucial solutions in the economy. ✓✓
- Participants in the economy need land to live, work and do business. Without the factor market, the provision of land would not be possible. ✓✓

(Accept any other correct relevant high order response)

(A maximum of 4 marks will be allocated for mere listing/facts)

(Max. 10)

CONCLUSION

Buyers need to be on the lookout for products that substitute their usual products and compare their prices to take advantage of price differences. ✓✓

(Accept any other correct relevant high-order conclusion)

(Max. 2)

[40]

QUESTION 6: CONTEMPORARY ECONOMIC ISSUES 40 MARKS – 40 MINUTES

- **Discuss in detail the problems threatening the environment.** (26)
- **Evaluate South Africa's Implementation of the World Summit on Sustainable Development (WSSD) Goal.** (10)

INTRODUCTION

The environment refers to the physical surroundings and conditions that influence people's lives. This includes the land, sea and atmosphere, and as such provides a flow of goods and services such as materials, e.g. soil, water, minerals, and timber as well as energy (e.g., fossil fuels, tides and winds). ✓✓

(Accept any other correct relevant introduction) (2)

BODY: MAIN PART**Natural environmental degradation ✓**

- This refers to the destruction and loss of indigenous species and natural processes. ✓✓
- This results in the continuation of only certain components of the original biodiversity and ecological functions, often with significantly altered natural communities. ✓✓
- This includes situations arising from **local influences** such as extreme weather conditions, local infections (e.g., diseases affecting plant or animal populations). ✓✓
- The impact of natural processes like erosion is significant in South Africa. ✓✓
- **Water erosion** is estimated to affect 6.1 million hectares of cultivated land. ✓✓
- **Wind erosion** has an even more serious effect on cultivated land, with an estimated 10.9 million hectares currently impacted. ✓✓

Human impact on the natural environment

- Humans alter the natural environment in three main ways:
 - **Transformation of land and sea ✓**
This involves activities often referred to as "development," such as: land clearing, forestry, grazing, urbanisation, mining, trawling, dredging. ✓✓
 - **Adding or removing species and genetically distinct populations**
This occurs through habitat alteration or -loss, hunting and fishing, the introduction and invasion of alien species. ✓✓
 - **Changes to key biogeochemical cycles ✓**
Changes are occurring in the most important **bio-geochemical cycles**, specifically those of carbon, nitrogen, water, and synthetic chemicals. ✓✓
Most **natural resource degradation** stems from the cumulative activities of farmers, households, and industries, all striving to improve their socio-economic well-being. ✓✓

Human-Induced environmental degradation✓

- The excessive demands humans place on nature impact three main areas: **non-renewable resources, renewable resources, and economic waste.** ✓✓
- **Waste** occurs in the economy due to a simple law of nature: the total mass of inputs into a transformation process equals the total mass of outputs. ✓✓
- Therefore, if inputs do not emerge as desired products, they must appear as undesirable byproducts or waste. ✓✓
- **Economic waste causes pollution** and manifests in two forms: **solid waste** and **gaseous waste.** ✓✓
- **Pollution** is the release of residual waste into the environment that is harmful to plants, people and animals. ✓✓
- Consequently, pollution also reflects the environment's inability to absorb the waste that is continuously being discharged. ✓✓
- In **solid form**, waste presents itself as chemical liquids and concrete goods, such as used tyres and plastic bags. ✓✓
- These are synthetic items that do not occur in nature, and nature has no way to decompose them, which causes **soil or environmental pollution.** ✓✓
- **Soil pollution or environmental pollution** refers to the deterioration in soil quality and soil fertility. ✓✓
- The causes of soil pollution include poor agricultural practices, increased mineral extraction, industrial waste dumping, and indiscriminate disposal of urban waste. ✓✓
- Soil pollution can also result from the use of chemicals in herbicides and pesticides. Some harmful chemical particles are so small that they are carried in gases, for example, the acid in **acid rain** which causes air pollution. ✓✓
- **Residual waste** is created through consumption, for example, household waste, scrapped consumer durable goods, and litter. ✓✓
- **Water pollution** occurs when water in rivers and oceans is contaminated by sewage, oil spills, the release of chemicals into rivers and oceans, mining activities, etc. ✓✓
- Water pollution harms animals, fish, humans, and plants. It causes diseases and leads to poor hygiene and health risks. ✓✓
- **Food pollution** occurs during food production, either through the use of hazardous pesticides by farmers, modified food, or contamination of food during the production process. ✓✓
- **Noise pollution** is caused by industries using machinery that emits excessive noise, noise from cars and airplanes and loud music. ✓✓
- Too much noise can damage the eardrum and affect hearing (leading to partial or total hearing loss). ✓✓

Poverty and environmental degradation ✓

- Problems in meeting community needs often lead to **pressure on land, overuse of land, and deforestation.** ✓✓
- **Poverty often causes people to place relatively more pressure on the environment,** leading to larger families (due to high mortality rates and insecurity). ✓✓
- Improper disposal of human waste resulting in unhygienic living conditions, more pressure on fragile land to meet their needs, overuse of natural resources, and increased deforestation. ✓✓
- **Inadequate knowledge about agricultural practices** can also lead to a decrease in crop yield and productivity. ✓✓
- **Environmental problems cause more suffering in the community,** as environmental damage increases the impact of floods and other environmental disasters. ✓✓
- Soil erosion, land degradation, and deforestation lead to a decrease in food production, and this, combined with a shortage of wood for fuel, contributes to inflation. ✓✓
- **All economic activities are directly, indirectly, or remotely based on natural resources,** and any pressure on natural resources can cause environmental stress. ✓✓
- Environmental damage can prevent people, especially the poor, from having good and hygienic living standards. ✓✓
- **Lack of education and improper implementation of poverty eradication policies** at ground level have increased poverty and environmental degradation. ✓✓
- Due to a lack of sufficient resources and improper knowledge, impoverished people tend to over-utilise every resource at their disposal when their survival is at stake.

Agricultural development and deforestation ✓

- South Africa's agricultural sector is one of the world's most diverse, consisting of corporate and private intensive and extensive crop farming systems, including vegetable, fruit, nut, and grain production. ✓✓
- The well-developed commercial farming sector in South Africa is the backbone of the country's agricultural economy and showed the best growth rate of all economic sectors in 2020, at 13.1 percent. ✓✓
- Many farming practices – such as the burning of fields and the use of petrol-powered machinery – contribute significantly to the **build-up of greenhouse gases in the atmosphere.** ✓✓
- The agricultural sector consumes approximately **69 percent of the planet's fresh water.** ✓✓ Without creative conservation measures in place, agricultural production consumes excessive water and degrades water quality. ✓✓ This has a detrimental effect on freshwater systems across the country. ✓✓

Agricultural development and deforestation

- Agriculture stands as the leading source of pollution in many countries. ✓✓
- **Pesticides, fertilisers, and other toxic farm chemicals** can poison fresh water, marine ecosystems, air and soil. ✓✓
- These substances can also persist in the environment for generations. ✓✓
- Many pesticides are suspected of disrupting the hormonal systems of both humans and wildlife, while fertiliser runoff significantly impacts waterways and coral reefs. ✓✓
- From 2001 to 2021, South Africa experienced a loss of about **1.53 million hectares of tree cover**, which is equivalent to about a 26% decrease in tree cover since 2000, resulting in about 945Mt of CO₂e emissions. One of the primary drivers behind this loss is **agriculture**. ✓✓
- Farms demand extensive land, especially commercial farming operations. ✓✓ While cutting down forests is severe, farmers also employ pesticides to eliminate species that consume their crops. ✓✓
- Some of these pesticides inevitably end up in rivers, leading to the death of local inhabitants. ✓✓

Consequences of deforestation:

- It reduces the **habitats of plant and animal species**, affects **rainfall patterns**, and the **formation of rain decreases**. ✓✓
- **Land degradation** is a mismatch between soil quality, land use, and land productivity. ✓✓
- **Land degradation caused by woody encroachment** is a significant biosocial issue for South Africa's rangelands. ✓✓
- This problem is exacerbated by intersecting factors such as climate change, historical land tenure policies, and post-apartheid reforms. ✓✓
- Land degradation is a negative trend in land conditions, driven by direct or indirect human-induced processes, including anthropogenic climate change. ✓✓
- It manifests as a long-term reduction or loss of biological productivity, ecological integrity, or value to humans. ✓✓
- **Communal land degradation in South Africa** is particularly characterised by woody plant encroachment. ✓✓
- This phenomenon involves an increase in tree or shrub densities in savannas, altering ecosystem functions and services by reducing water availability and total vegetation productivity, changing fire regimes, and impacting carrying capacity, biodiversity, and carbon sequestration capacity. ✓✓
- **Land consumption** means that increasing numbers of ecosystems are being destroyed to create space for urban, industrial, and farming developments. ✓✓
- Some productive land is also consumed by more roads and railway lines. ✓✓
- The **biodiversity (animals, plants, and water)** destroyed by these developments can never be recovered. ✓✓

Soil erosion ✓

- There's no known way for us to replace our soil. In South Africa, annual soil losses are estimated at **300 – 400 million tons**, nearly three tons per hectare. If the world's soil resources are depleted so rapidly, the world's ability to feed itself is also affected. ✓✓

Industrial development, mining, and environmental degradation ✓

- **Pollution from mining operations** is a direct cause of groundwater contamination in South Africa. ✓✓
 - **Mining exploration** has a negative impact, leading to the removal of vegetation for survey lines, damage to vegetation, and soil erosion from vehicle tracks, abandoned equipment, and supplies. ✓✓
 - When abandoned mine pits in South Africa fill with stagnant water, they become infested with mosquitoes, turning into **breeding grounds for malaria and other diseases**. This has a significant impact on the sustainability of animals and humans, as these diseases are often fatal. ✓✓
 - The risks posed by unrehabilitated mines extend far beyond the people who access the sites – they risk **contaminating the water supply for millions of South Africans**. ✓✓
 - Coal across South Africa primarily occurs in ores containing sulphur-bearing minerals. ✓✓ When these ores come into contact with water and air, **sulfuric acid is created**, which can lead to further leaching of heavy metals from the ores. This reaction poses significant risks to water and agricultural land in many parts of South Africa, including Mpumalanga. ✓✓
 - Residual coal deposits in Mpumalanga are also extracted by artisanal miners, known as *zama zamas* [an isiZulu term meaning "to try again"]. ✓✓
 - Artisanal miners can make a living, but at a high risk: they have little protective equipment and enjoy no labour or health and safety protection while working in dangerous underground mine shafts. ✓✓
 - **Chlorofluorocarbons (CFCs)**: ✓ These are gases once used as propellants in aerosol cans and as refrigerants in air conditioners and refrigerators. ✓✓
 - They appear to have destroyed part of the atmosphere's **ozone layer**. ✓✓ Ozone is essential for the sustainability of humans and animals. ✓✓
 - The reduction of ozone (ozone depletion) causes, among other things, increasing poor health such as respiratory problems, pneumonia, heart disease, and skin cancer in humans and animals. ✓✓
- Carbon dioxide** ✓ enormous quantities of fossil fuels – coal, oil, and gas – have been burned by industries. When they burn, they produce carbon dioxide. Carbon dioxide is absorbed by the oceans and used by plants in photosynthesis. ✓✓
- If too much carbon dioxide and other gases are released into the atmosphere, it will cause the **greenhouse effect**, trapping radiation arriving at and produced on earth, and will lead to **global warming**. ✓✓

Human settlement, urbanisation, and environmental degradation ✓

- According to Statistics South Africa's General Household Survey of 2021, slightly more than eight-tenths (83,6%) of South African households lived in formal dwellings in 2021, followed by 11,7% in informal dwellings and 4,2% in traditional dwellings. ✓✓
- South Africa is urbanising rapidly. About **63% of South Africans already live in urban areas**, and this statistic is projected to rise to about 71% by 2030. ✓✓
- The main reasons for rapid urbanisation in South Africa are **rural-urban migration and natural population growth**, leading to the proliferation of informal settlements. It is estimated that at least 1,2 million households live in shacks in at least 2,700 shack settlements nationwide. ✓✓
- **Rural-urban migration** helps to reduce pressure on the rural environment but places pressure on the urban environment, such as the demand for land and services. ✓✓
- **Unplanned informal settlements** are one of the consequences of large-scale rural-urban migration. ✓✓
- The government struggles to meet the community's needs. ✓✓
- **Stormwater runoff** is a common problem in unplanned settlements due to the lack of proper sewage and drainage systems. ✓✓
- Unplanned settlements without sanitation can lead to **waterborne diseases**, such as typhoid fever, diphtheria, and cholera. ✓✓

(A maximum of 8 marks for headings/examples)

(Accept any other correct relevant answer)

(Max. 26) (26)

ADDITIONAL PART

The objectives of the **WSSD (World Summit on Sustainable Development)** were not successfully implemented in South Africa because:

- **Poverty eradication:** The WSSD was not very successful, as more than half of the people in South Africa live in extreme poverty / survive on less than one US dollar per day. ✓✓
- **Unemployment** is increasing and also raising the poverty level. ✓✓
- **Water and sanitation:** South Africa is experiencing extreme drought in certain areas, and many communities still lack sanitation facilities. ✓✓
- **Energy:** South Africa still does not make sufficient use of renewable energy sources for sustainable development. ✓✓
- **Chemical use:** South Africa is not achieving the goals of reducing pollution levels and greenhouse gases. ✓✓
- **Eskom**, as the largest polluter in South Africa, still uses coal as the primary source of electricity. ✓✓
- **Environmental management:** South Africa is largely unsuccessful in terms of improving water quality / biodiversity / forestry destruction, etc. ✓✓

The objectives of the **WSSD** were partially successful because:

- **Environmental management:** South Africa is gradually phasing in environmentally friendly energy sources. ✓✓
- **Solar farms** are increasingly feeding the national power grid as their number increases. ✓✓
- Many homes are equipped/provided with **solar water heaters** to reduce reliance on the national power grid. ✓✓
- Eskom is using **new technology in its coal power generators** that reduces air pollution. ✓✓
- Informal settlements have also been provided with **electricity** to reduce coal burning and thereby reduce air pollution. ✓✓
- The government has prioritised the provision of **water through the RDP (Reconstruction and Development Programme)**, and many communities have access to water, compared to previous governments. ✓✓

(Accept any other correct relevant high order response)

(A maximum of 4 marks will be allocated for mere listing/facts)

(Max.10) (10)

CONCLUSION

The environment is vital for the continuation of life and therefore, it is crucial for the current generation to ensure that it is utilised without compromising the needs of future generations.

(Accept any other relevant correct higher-order conclusion)

(Max. 2) (2)

TOTAL SECTION C: 40
GRAND TOTAL: 150