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ECONOMICS

GRADE 12

2026 WINTER CLASSES

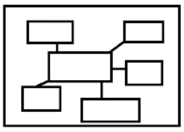
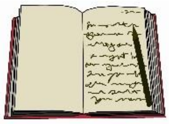
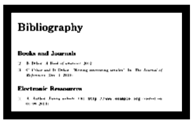
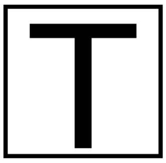
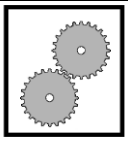
TEACHER AND LEARNER CONTENT MANUAL

TOPICS:

PUBLIC SECTOR
IMPERFECT MARKET
MARKET FAILURE

A Division of Marematlou Group Holdings

ICON DESCRIPTION

 MIND MAP	 EXAMINATION GUIDELINE	 CONTENTS	 ACTIVITIES
 BIBLIOGRAPHY	 TERMINOLOGY	 WORKED EXAMPLES	 STEPS

CONTENTS **PAGE**

MACROECONOMICS

EXAMINATION GUIDELINE

TOPIC 3: PUBLIC SECTOR	CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES
Evaluate the role of the public sector in the economy with special reference to its socio-economic responsibility in the South African context	(Focus: Composition and necessity of public sector, problems of public sector provisioning, objectives, fiscal policy and reasons for public sector failure)
3.1 The composition and necessity of the public sector	• Briefly describe the **composition** of the public sector • Explain the **necessity** of the public sector: - To supply public goods - To conserve resources - To manage the economy
3.2 Problems of public sector provisioning	• Discuss how each of the following factors contributes to poor public sector provisioning: - Accountability - Efficiency - Assessing needs - Pricing policy - Parastatals - Privatisation/Nationalisation
3.3 Objectives of the public sector	• ***Discuss in detail the main objectives of the public sector in the economy*** - **Economic growth** - **Full employment** - **Exchange rate stability / Balance of Payments equilibrium** - **Price stability** - **Economic equity**
3.4 Budgets	• Broadly outline the various budgets • Emphasise public debt as a % of GDP • Analyse current **main budget** data relating to: - Taxes - Sources of income - Expenditure allocation - Personal income tax tables (tax calculation) • Differentiate between **Medium Term Expenditure Framework (MTEF)** and **Medium Term Budget Policy Statement (MTBPS)** • Explain how socio-economic rights are embedded in the budgets of the South African government
3.5 Fiscal policy (including Laffer curve)	• Briefly discuss the following: - The **main variables** (tax and government expenditure) - **Features** of fiscal policy: goal-bound, demand-based, cyclical • Discuss the **effects** of fiscal policy. - Income distribution - Consumption - Price level - Incentives/Disincentives in relation to the **Laffer curve** - (Draw and interpret the Laffer curve) - Discretion

3.6 Public sector failure	• Briefly explain the features of public sector failure: - Ineffectiveness - inefficiency • *Discuss in detail the reason(s) for public sector failure (link them to typical problems experienced through public sector provisioning)* • : - **Management failure** - **Apathy** - **Lack of motivation** - **Bureaucracy** - **Politicians** - **Structural weaknesses** - **Special interest groups** • Briefly explain the following **effects** of public sector failure: - Allocation of resources - Economic instability - Distribution of income - Social instability Infuse where appropriate: national macroeconomic policy and service delivery with regard to socio-economic rights, education, health and the environment, social security, convention of the rights of the child, taxation and compensation for human rights abuses.

T TERMINOLOGY/KEY CONCEPTS

Term	**Description**
The budget	A document that details expected revenue and projected expenditure
Bureaucrat	An official in a government department
Central national government	Concerned with national issues, e.g. safety and security
Collective goods	Goods provided for society as a whole. E.g. parks and public utilities. Provision of these goods gives rise to the free rider problem
Community goods	E.g. police stations. Everyone can use these whether they are prepared to pay for them or not
Demerit goods	Harmful goods, e.g. cigarettes
Deregulation	Removal of unnecessary restrictions by law
Direct taxes	Taxes that are not shifted to the end user, e.g. PAYE
Indirect taxes	Taxes levied on the sale of goods and services
Local government	Deals with local issues within a town or municipal area

Merit goods	Goods and services whose provision has benefits for the user (private) and for society, e.g. education
Monetary Policy Committee (of the Reserve Bank) (MPC)	Decides on the country's monetary policy
Medium Term Budget Policy Statement (MTBPS)	Government's statement setting out its three-year budget
Medium Term Expenditure Framework (MTEF)	Estimates income and expenditure for a three-year period
Nationalisation	Transfer of functions and ownership of entities from the private sector to the public sector
Public goods and services	Provided by the state for use by all the members of a society, e.g. public libraries
Regional government	Deals with economic and other issues specific to a region/province
Regulation	Putting laws in place to regulate activities
State Owned Enterprises (SOE)	A business owned wholly or partly by the state and run by a public authority, e.g. Eskom and SAA
Value Added Tax (VAT)	An indirect tax on goods and services consumed in the economy

3.1 THE COMPOSITION AND NECESSITY OF THE PUBLIC SECTOR

Composition of the Public Sector

The public sector is the part of the economy controlled and run by the government.
It provides services that help the whole society.

The public sector is made up of:

Government Departments	These include national, provincial, and local departments that provide services such as health, education, housing, safety and security
Public Corporations / State-Owned Enterprises (SOEs)	These are businesses owned by the government. Examples: Eskom, Transnet, SABC, SANRAL
Public Institutions	These are organisations that offer important services to the public. Examples: public hospitals, public schools, police and defense services

The Three levels of Government in South Africa

South Africa has three levels of government.
They work together, but each has its own responsibilities.

National Government

- Make laws for the whole country and formulate as well as implement policies to manage the country.
- Provide services regarding issues that affect everyone and it is led by the president of the country.
- Departments include Police, Defense, Education, Health, etc.

Provincial Government

- There are 9 provinces in South Africa and each province has its own government and premier that handles services like provincial hospitals, libraries, housing and education services in the province.

Local Government (Municipalities)

- Responsible for issues that affect people at community level (towns and cities). It provide basic services such as water, electricity distribution, rubbish collection, local roads, and other community services.

MIND MAP OF THE THREE SPHERES OF GOVERNMENT

Constitution of the Republic provides for 3 Spheres of government, having specified powers and functions, but are:-

- Distinctive;
- Interdependent; and
- Interrelated

Local Government, as one sphere, plays a crucial role

Necessity of the Public Sector

The public sector is important because it performs tasks that the private sector cannot or does not want to do.

a) To Supply Public Goods

Some goods and services must be available to everyone, not only those who can pay. The public sector ensures that such goods and services are available to everyone in the country.

The goods and services provided by the state include:

- **Community goods** – these are goods that are non-excludable and non-rivalry.

Non-excludability refers to goods that everyone can use regardless of whether they paid for them or not.

Non-rivalry means that one person's consumption of a good does not diminish/reduce its availability for others.

Examples of these services include roads/infrastructure, streetlights and police and defense.

- **Collective goods** include beaches, parks and toll gates, where *free riders* can be excluded when levies (fees) are charged

- **Merit goods** are goods that increase the welfare of the society and include education, healthcare and public libraries etc.

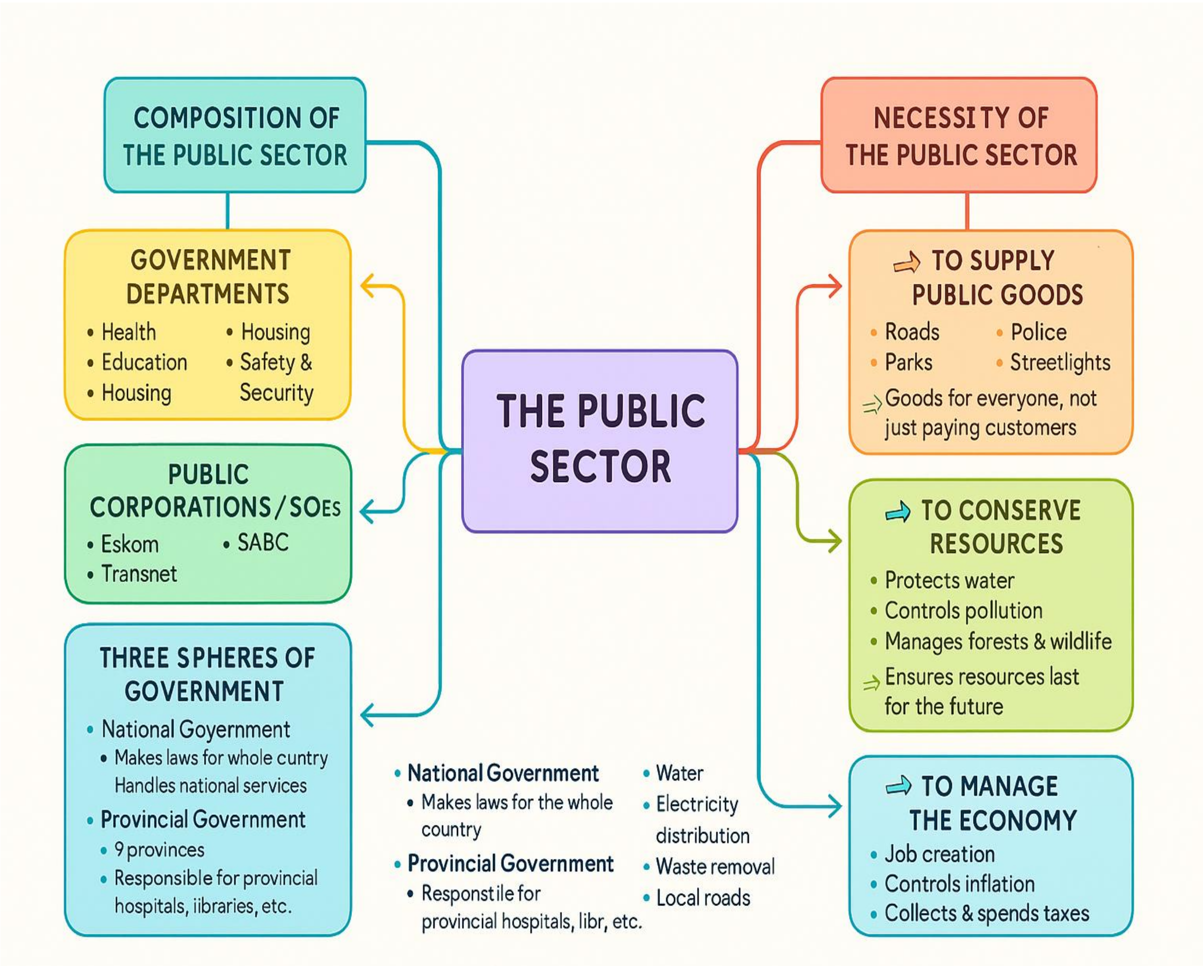
👉These goods benefit everyone and cannot easily be restricted to paying customers.

b) To Conserve Resources

The government protects natural resources so that they last for future generations. It does this by implementing laws and policies that protect resources such as minerals, preventing pollution, managing forests, fisheries, and wildlife areas. These laws also prevent exploitation of natural resources.

c) To Manage the Economy

The government ensures a legislative and social environment by implementing and applying economic development policies that keeps the economy stable and helps it grow. Some approaches government use to manage the economy include creating jobs, controlling inflation, tax collection and government spending, building infrastructure, supporting businesses during economic downswings.



ACTIVITY 1

1.1 Study the information below and answer the questions that follow.

Public sector levels

www.stkittsvilla.com

1.1.1	Identify the level of government under which the municipality can be classified.	(1)
1.1.2	Which parastatal is responsible for fixing roads in South Africa?	(1)
1.1.3	Briefly describe the term *merit goods.*	(2)
1.1.4	Explain the necessity of the public sector.	(2)
1.1.5	Discuss the benefits of improved infrastructure in the economy.	(4)

3.2 PROBLEMS OF PUBLIC SECTOR PROVISIONING

Mnemonic: Always Eat Apples Pears Peaches Pineapples

Public sector provisioning means the government provides goods and services to the people. Sometimes, this process does not work well. Below are the main reasons why:

1. Accountability

Accountability means being responsible for actions.

In the public sector there is lack of accountability

- There is very little pressure to please customers because government services do not have competitors which can lead to poor service delivery (e.g., long queues, slow response).
- Public workers may not be punished when they perform badly which fuels their lack duty in service delivery.
- Government employees must be accountable when dealing with tax payer's money and avoid corruption

Lack of accountability result in poor service and lack of improvement.

2. Efficiency

Efficiency means using resources wisely. The public sector becomes inefficient because of the following reasons:

- Government services are often slow due to incompetence and corruption.
- There can be wasteful use of money (e.g., overspending) which inhibits proper allocation of resources and service delivery.
- There are few incentives for workers to work faster or smarter leading to decline in morale, motivation and ultimately productivity.

Inefficiency result in high costs and slow service.

3. Assessing Needs

- The government must provide goods and services the needs of the people but It is difficult to know exactly what all communities need because unlike the private sector, the government does not have the guidance of market prices.
- Public goods and services may be under-supplied or over-supplied. Needs of the communities differ across regions (urban vs rural) therefore proper surveying and canvassing of public views is necessary.

Failure to asses needs result in wrong services provided or delays in the right services.

4. Pricing Policy

- It is often difficult for the public sector to establish the correct pricing, it uses approaches such as:

Charging a small fee e.g. for collective goods (parks or toll gates)
Free of charge which is covered with tax revenue (community goods)
Subsidies- mainly for merit goods or services which promote social welfare (housing, public transportation and industrial support).

- If they charge prices too low (to help the poor), it leads to shortages. If the prices are too high (to raise revenue), it makes services unaffordable.

Government sometimes sells goods below cost, this causes:

- Financial losses
- Overuse of services
- Pressure on the national budget

Wrong implementation of pricing policy result in inefficient use of resources and financial strain.

5. Parastatals (State-Owned Enterprises)

Parastatals are businesses owned by the government, this includes businesses such as Eskom, Transnet, SABC, SANRAL.

Problems caused by parastatals may include:

- Mismanagement of funds and corruption by government officials
- Political interference
- High debt (International Monetary Fund)
- Lack of competition

These problems make services unreliable and expensive.

👉 Result: Poor-quality service delivery and frequent breakdowns.

6. Privatisation / Nationalisation

Privatisation refers to selling a state-owned business to private owners.

Problems related to privatisation are:

- Private companies aim for profit, so prices may increase and this leads to some people losing access to essential services.
- Job losses may occur as companies cut costs.

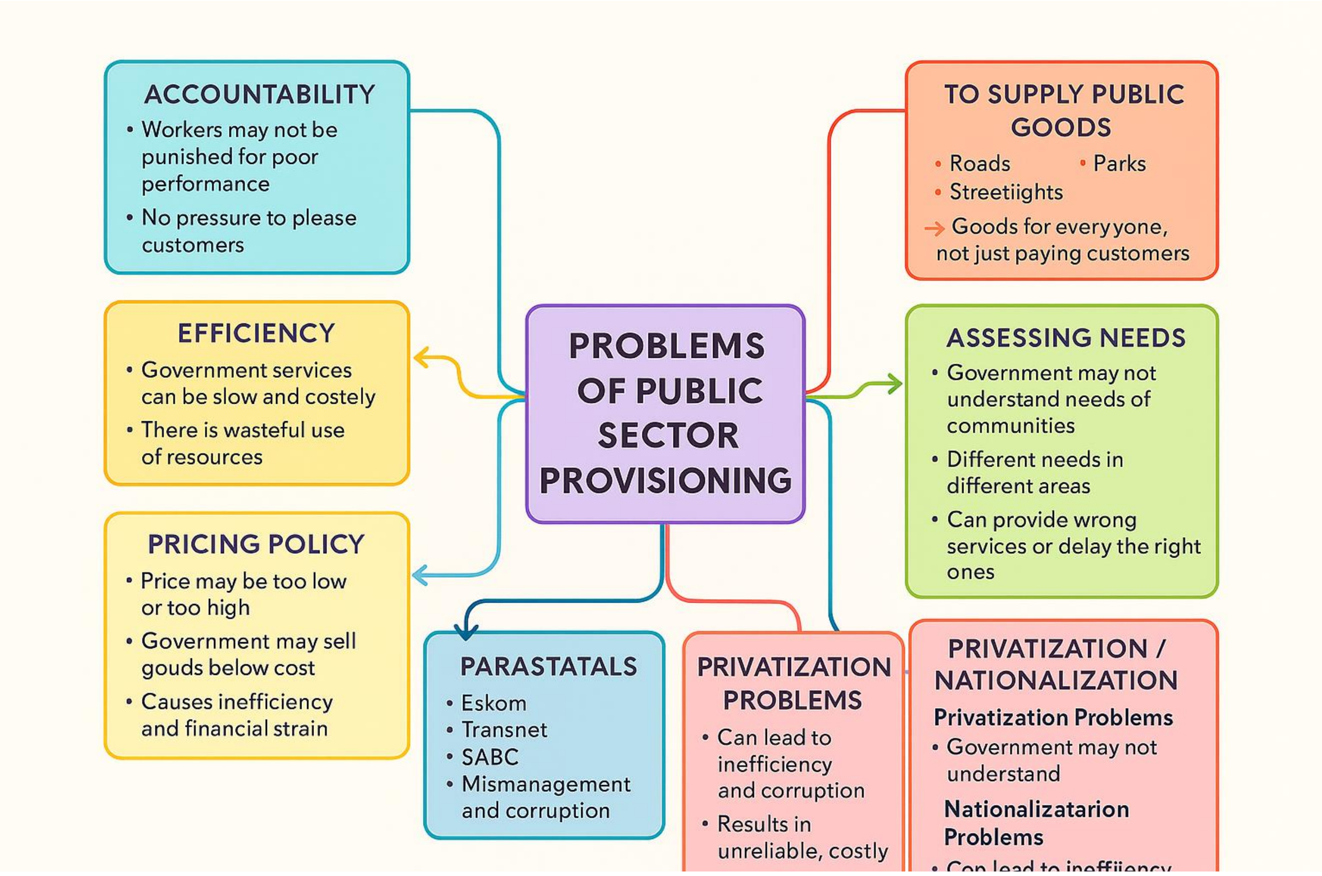
👉 Result: Services may become too expensive for poor households.

Nationalisation refers to when government takes over privately-owned businesses. Problems related to nationalisation are:

- Government may lack the expertise to run the business which can lead to corruption and inefficiency.
- It may also reduces competition, which lowers quality of supplied goods or services.

👉 Result: Poorly run industries and higher costs for the country.

MIND MAP ON PUBLIC SECTOR PROVISIONING



ACTIVITY 2

2.1 Various options are provided as possible answers to the following questions. Choose the answer and write only the letter(A-D) next to the question numbers (1.1.1 to 1.1.5) in the answer book. e.g. 1.1.6 D

2.1.1 Accountability in the public sector promotes… (2)

A. corruption

B. transparency

C. inflation

D. bureaucracy

2.1.2 Transfer of ownership of entities from private sector to public sector (2)

A. globalization

B. privatization

C. ownership

D. nationalization

2.1.3 The public sector must assess needs to… (2)

A. increase exports

B. reduce production

C. improve service delivery

D. make profit

2.1.4 Efficiency means… (2)

A. optimal use of resources.

B. increasing taxes

C. producing at high cost

D. wasting resources

2.1.5 Government financial support for goods and services to make them affordable is known as (2)

A. tax

B. budget

C. levies

D. subsidy

2.2 Provide the economic term/concept for each of the following descriptions. Write only the term / concept next to the question number. NO ABBREVIATIONS, ACRONYMS OR EXAMPLES WILL BE ACCEPTED.

2.2.1 Public enterprise that operates independently but is owned by the state (1)

2.2.2 The responsibility of public officials to explain and justify their actions (1)

2.2.3 An approach used by government to control prices of services (1)

2.2.4 Producing maximum output using minimum resources (1)

(14)

3.3 OBJECTIVES OF THE PUBLIC SECTOR [possible essay]

Mnemonic: EFEPE

The public sector has important goals that help the country grow and function well. These objectives guide government policies, spending, and planning.

Below are the main objectives of the public sector in the economy.

1. Economic Growth

- Economic growth means increasing the production capacity in the country and is measured in terms of Real GDP.

- Real GDP is the value of all finished products produced within the borders of a country after the effects of inflation have been removed.

- To achieve economic growth, the economic growth rate must be higher than the population growth rate.

The government promotes growth by:

- Building infrastructure (roads, rail, schools, hospitals) and supporting industries through grants or loans
- Creating a stable environment for businesses to invest while encouraging innovation and entrepreneurship

-Economic growth is important because more jobs can be created leading to better incomes and improved living standards.

2. Full Employment

- Full employment occurs when all the people who are willing and able to work can find jobs or be able to create employment for themselves.

- The unemployment rate was 31.4 % in the last quarter (Q4) of 2025. The government strives to create as much jobs as possible to achieve this objective.

The government tries to achieve this by:

- Creating public works programs like expanded public works program (EPWP) with the aim of creating job opportunities for lower skills levels.
- Implementing policies to encouraging businesses to hire more workers e.g. skills development programs.
- Providing education and training to improve the quality of the skills of labour
- Supporting new industries that create jobs by means of subsidies on production.

-Full employment is important as it reduces poverty and increases national productivity (GDP)

3. Exchange Rate Stability / Balance of Payments Equilibrium

- The exchange rate is the value of one country's currency compared to other currencies.

- To protect the currency of the country the government attempts to maintain a balance of payment equilibrium.

- The balance of payment equilibrium limits the rapid appreciation and depreciation that affects the currency of the country.

- This means the country can sustain its economic activities without relying excessively on foreign borrowing.

- The government uses monetary and fiscal policies to keep the exchange rate relatively stable.

- This ensures that the outflow of money out of the country does not exceed the inflow of the money into the country.

- This can be done by encouraging exports to bring money into the country and reduce unnecessary imports through strategies such as export promotion and import substitution.

- A stable exchange rate protects the economy from inflation and uncertainty.

4. Price Stability

- In a mixed economy, prices fluctuate as demand and supply changes. These frequent changes affect economic growth and employment.

- The government aims to achieve Price stability to remove such uncertainties.

- Price stability means keeping inflation low and steady. The inflation target of the state is 3-6%.

- Government works to control the rising prices to prevent the cost of living from increasing too fast

- Stable prices help households and businesses plan for the future.

5. Economic Equity

- Economic equity means making sure the distribution of wealth and income is fair.

-Equity ensures everyone has access to basic needs and opportunities.

- The distribution of income in the economy is often not fair as some people have higher earnings than others. This gap between the rich and the poor creates many socio-economic problems in the country.

- The government attempts to create a more equitable distribution of income and wealth through economic policies and strategies like:

- Progressive income tax system (the higher you earn the more tax you pay) , taxation on profits and wealth etc. The earnings from tax are used to finance free services in the country.
- Free social services include basic education, health etc.
- Economic services like social grants (old-age grants, child support grants)

- Minimum wage laws that support labour and improve willingness to participate in economic activities and supporting disadvantaged groups through various policies

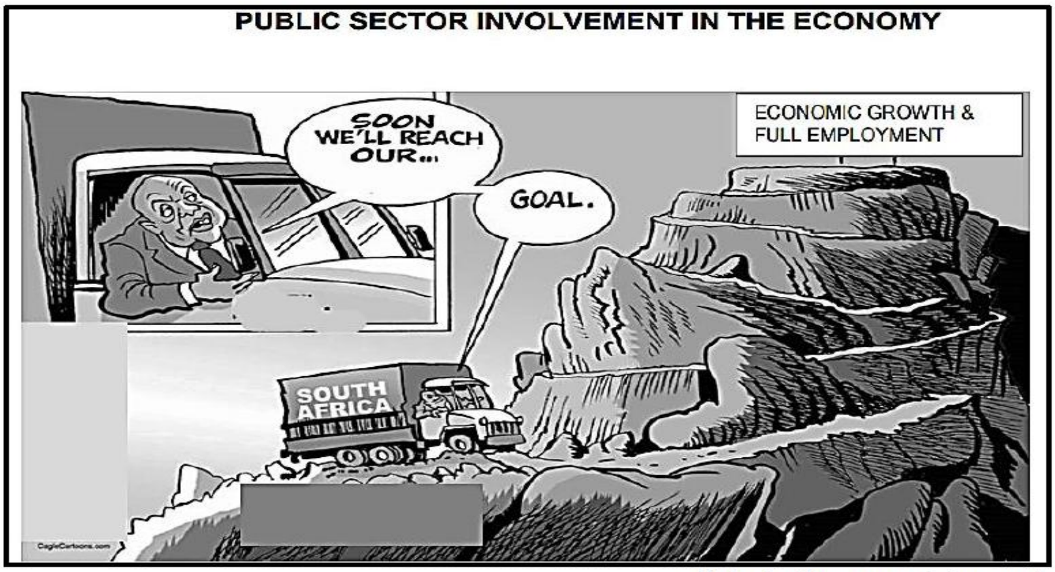
ACTIVITY 3

3.1 Discuss in detail the main objectives of the public sector in the economy (26)

Analyse the problems faced by the South African government in providing public goods and services. (10)

ACTIVITY 4

4.1 Study the cartoon below and answer the questions that follow.



PUBLIC SECTOR INVOLVEMENT IN THE ECONOMY

[Adapted from google images]

4.1.1 Identify a macroeconomic objective of the public sector in the cartoon. (1)

4.1.2 What is the inflation target in South Africa? (1)

4.1.3 Briefly describe the term *economic growth.* (2)

4.1.4 Explain how the public sector failure can lead to social instability. (2)

4.1.5 Why is South Africa likely to fail in achieving its economic goals? (4)

3.4 BUDGETS

Broad Outline of the Various Budgets

South Africa's government budget system includes several interconnected budgets:

The Main Budget

- This is the core national budget that is presented annually by the Minister of Finance during the Budget Speech in February.
- It is used to fund national departments and public institutions.
- Includes tax revenue, spending allocations, and projected deficits/surpluses.

Provincial and Local Government Budgets

Provinces and municipalities receive transfers from the national budget but also raise own revenue (e.g. property rates, service charges).

Social Security Funds

Includes the Unemployment Insurance Fund (UIF) and the Road Accident Fund (RAF) which are funded separately through dedicated contributions.

Public Debt as a % of GDP

Public debt is the total amount borrowed by government to finance deficits.

Expressing debt as a percentage of GDP allows comparison over time.

High debt-to-GDP ratio reduces fiscal space and increases interest payments, which can lead to higher taxes or reduced services.

The debt rule is a fiscal policy guideline that state that the total government debt should not exceed 60% of nominal GDP.

Analyses of the Current Main Budget Data

Sources of Income

Government revenue comes from:

- Tax revenue (direct tax, indirect tax, administrative income)
- Non-tax revenue (fees, fines, interest, government property rents)
- Borrowing/ loans (to cover deficit)

Taxes

Main sources of tax revenue include:

- Personal Income Tax (PIT)
- Corporate Income Tax (CIT)
- Value Added Tax (VAT)
- Fuel levies
- Customs and excise duties

Expenditure Allocation

Government spending is allocated to departments of education, health social development (grants), peace and security (police, defense), economic development, debt-service costs

Personal Income Tax Tables (Tax Calculation)	
taxable income	Gross income – deductions.
Progressive tax system:	higher income = higher tax rate.
REBATE	A fixed deduction from the tax owed.
TAX THRESHOLD	Income level below which no tax is paid.

Below is an example of a tax schedule:

INCOME TAX: INDIVIDUALS AND TRUSTS

Tax rates from 1 March 2025 to 28 February 2026:

Individuals and special trusts

Taxable Income (R)	Rate of Tax
1 – 237 100	18% of taxable income
237 101 – 370 500	42 678 + 26% of taxable income above 237 100
370 501 – 512 800	77 362 + 31% of taxable income above 370 500
512 801 – 673 000	121 475 + 36% of taxable income above 512 800
673 001 – 857 900	179 147 + 39% of taxable income above 673 000
857 901 – 1 817 000	251 258 + 41% of taxable income above 857 900
1 817 001 and above	644 489 + 45% of taxable income above 1 817 000

Rebates	
Primary	R17 235
Secondary (Persons 65 years and older)	R9 444
Tertiary (Persons 75 years and older)	R3 145

Age	**Tax threshold**
Below age 65	R95 750
Age 65 to below 75	R148 217
Age 75 and above	R165 689

Trusts other than special trusts: rate of tax 45%.

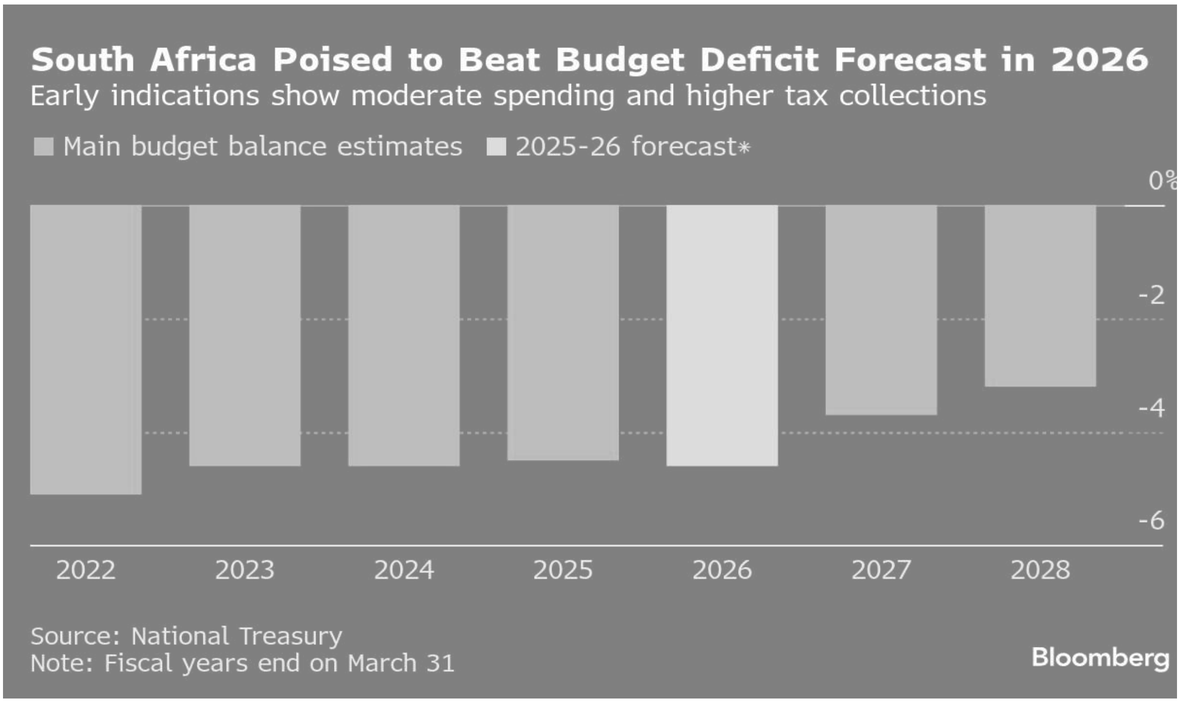
Here's how much tax you will pay based on what you earn in South Africa – BusinessTech

Difference Between MTEF and MTBPS budget

Medium-Term Expenditure Framework (MTEF)	Medium-Term Budget Policy Statement (MTBPS)
• A three-year rolling budget that helps departments plan beyond one financial year. • Sets spending limits for national, provincial, and local government. • Introduced to improve accountability and planning.	• Also called the "mini budget" that is presented in October each year. • It shows government's updated economic outlook and signals any changes to spending priorities. • It updates revenue forecasts and debt projections and can warn of needed adjustments before the February budget.

ACTIVITY 5

5.1 Study the information below and answer the questions that follow.



5.1.1	Identify a source of government revenue from the data above.	(1)
5.1.2	What percentage of public debt to nominal GDP is accepted as the general debt rule?	(1)
5.1.3	Briefly describe the term *budget.*	(2)
5.1.4	What is the purpose of the Medium-Term Budget Policy Statement (MTBPS)?	(2)
5.1.5	How can government increase its revenue?	(4)

3.5 FISCAL POLICY (INCLUDING LAFFER CURVE)

Main variables of fiscal policy

Fiscal policy uses two main variables:

a. Taxation (tax)

- This is the money the government collects from households and businesses.
- When taxes increase, people have less money to spend.
- When taxes decrease, people have more money to spend.

b. Government expenditure (government spending)

- This is the money the government spends on things like education, health, roads, and social grants.
- If government spending increases, more money flows into the economy.
- If government spending decreases, less money is available in the economy.

Features of fiscal policy

Fiscal policy has the following features:

a. It is goal-bound

- Fiscal policy aims to achieve specific goals such as, economic growth, reducing unemployment, stable prices and fair income distribution

b. It is demand-based

- Fiscal policy mainly affects the level of demand in the economy.
- When demand is too low, government increases spending or cuts taxes.
- When demand is too high, government reduces spending or increases taxes.

c. It is cyclical

- Fiscal policy changes depending on the business cycle:
- During recession, the government spends more and taxes less.
- During prosperity, the government spends less and might increase taxes.

Effects of fiscal policy

Income distribution

Fiscal policy can make income more equal when taxing high-income earners more and using the money to fund grants, education, and health

This helps reduce poverty and inequality.

Consumption

Fiscal policy affects how much households spend.

- Lower taxes helps people have more disposable income which increases consumption.
- Higher taxes makes people have less disposable income leading to a decrease in consumption.

More government spending also increases consumption in the economy.

Price level

Fiscal policy can influence inflation (the general price level). e.g.

- More government spending or lower taxes lead to increase in demand then prices may increase (inflation).
- Less government spending or higher taxes causes demand to fall and prices may decrease.

Incentives/Disincentives (linked to the Laffer Curve)

High and progressive income tax rates discourage people from entering the labour market, from accepting promotions and from working longer hours.

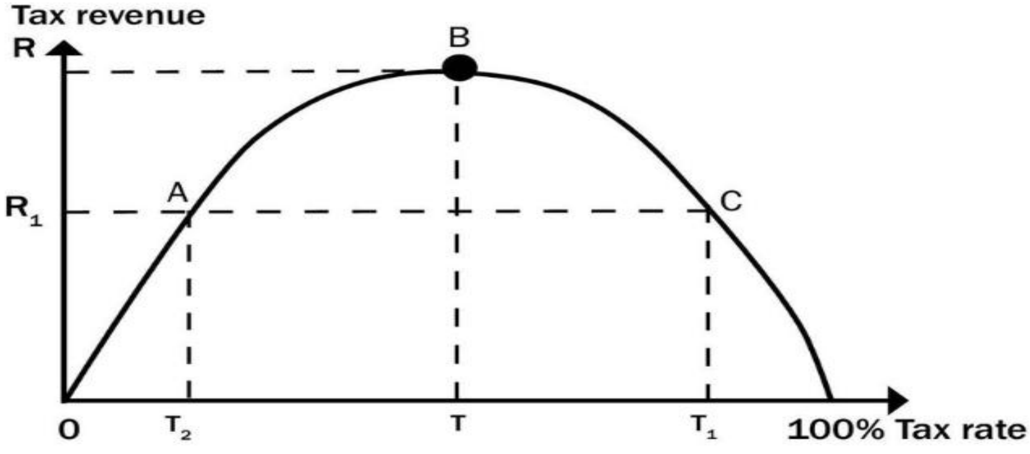


Figure 3.1 The Laffer Curve

- This is a diagram that illustrates the relationship between tax rates and tax revenue.

Explanation of the Laffer curve

- At point 0, average tax rate is 0 and tax revenue is 0. As the tax rate increases, the tax revenue will also increase up to a certain point.
- At the tax rate of T the government receives the highest revenue at R. The curve will slope upward and peak at B.
- If the tax rate increases from T to T1 then the tax revenue will decrease from R to R1. People work less as a result of higher tax rate.
- If taxation decreases to T2 , the government may receive less revenue, but people may have more money to save and spend.
- If taxation is 100% then nobody will want to work, because ALL income goes to the State
- Economists use this to justify a reduction in the level of taxation

👉 important to note: Extremely high tax rates reduce total tax revenue**.**

Discretion

The minister of finance use his discretion on fiscal decisions e.g. how much to reduce income tax rules are:

Deficit rule – must not exceed 3% of the GDP

Debt rule – must not exceed 60% of nominal GDP

Borrowing rule – only for capital expenditure.

ACTIVITY 6

6.1	Name the two main variables of fiscal policy	(2)
6.2	Explain with an aid of a well labelled graph the relationship between tax rates and tax revenue	(8)
6.3	Analyze the effects of fiscal policy on the economy	(8)

3.6 PUBLIC SECTOR FAILURE

Features of public sector failure

Public sector failure happens when the government fails to provide goods or services properly.

Two main features are:

Ineffectiveness – which happens when the government services do not meet their goals. Examples: hospitals lacking medicine, schools without enough teachers, poor delivery of housing.

Inefficiency – when the government uses more resources than necessary to provide a service. There is waste of money, time, and labour. Example: long delays, overspending on projects, or poor use of budgets.

Reasons for public sector failure (link with problems experienced through public sector provisioning) ***[Possible essay]***

1. Management failure

- Poor planning, weak leadership, and bad decision-making leads to unfinished projects, corruption, and waste of funds.
- Example: managers not monitoring workers or failing to maintain public infrastructure.
- Since *assessing of needs* is difficult, the state might oversupply or undersupply some goods. This leads to public sector failure.

- People working in *parastatals* may lack management skills and might end up implementing wrong policies which may cause the public sector to fail.
- If the management lacks *accountability* and cannot explain their financial decisions regarding the state's revenue, it leads to corruption and ultimately public sector failure

2. Apathy

- Workers in the public sector may not care about service quality which leads to slow service delivery and poor attitudes at government offices.
- *Parastatal* employees lack interest or concern because they know they will get paid even when they are underperforming.
- Corruption that occurs particularly in *nationalized* entities are apathetic and cause the public sector to fail.
- Results from lack of *accountability* or poor work culture lead to undersupply of necessary public service to society. This is public sector failure.

3. Lack of motivation

- *Nationalizing* companies may demotivate workers to work hard as their hard work would not be recognized leading to inefficiency it the work place.
- When public servants lack the drive and commitment to perform their duties effectively, it can lead to delays, and inefficiencies in the provision of public services.
- Public workers may not be motivated due to low salaries, limited rewards, no competition, this reduces productivity and causes poor quality of public services.

4. Bureaucracy

- Too many rules and long procedures slow down service delivery and citizens wait longer for documents, support, or approvals.
- *Parastatals* cannot satisfy the needs of the citizens in time because of rules and procedures that must be followed that may take time to finish following them
- Bureaucracy wastes resources and creates frustration.

5. Politicians

- Politicians may make decisions for political gain rather than public benefit.
- Public money may be spent to win votes or hiring unqualified people due to political connections
- This leads to corruption and poor policy choices.

6. Structural weaknesses

- Government systems may be old, outdated, or poorly designed.
- Examples can be weak monitoring systems or poor communication between departments or outdated technology
- These weaknesses can cause lack of accountability on decisions and actions of public officials.
- These weaknesses reduce efficiency and transparency.

7. Special interest groups

- Special interest groups can be viewed as using their political power to raise demand for public services as well as using their bargaining power to fight for higher wages. This can affect the *pricing policies* of the state.
- Certain people or groups with powerful influence in the government usually try to further their own interests by means of *rent-seeking or lobbying.
- Groups like unions, big companies, or influential individuals may pressure the government to make decisions that benefit a small group instead of all citizens, this leads to unfair distribution of resources.

<u>Effects of public sector failure</u>

Allocation of resources

- Resources are used in the wrong places or wasted.
- Important services (education, healthcare, housing) do not get enough funds. Which leads to shortages and poor quality of public goods.
- The government may fail to achieve optimal allocation of resources and the resources will then be wasted.

Economic instability

- When the government is unable to use fiscal policy effectively it can lead to macroeconomic instability.
- Poor government decisions can cause higher unemployment, lower economic growth, high inflation and budget deficits
- This weakens confidence in the economy.

Distribution of income

- If the public sector fails to use progressive income tax system effectively the gap of income inequality will increase.
- Rich groups benefit more from government decisions.

- Poor communities continue to struggle due to poor service delivery.

Social instability

- When government fails to deliver social services like electricity, sanitation and clean water, people’s rights will be compromised and their lives jeopardized.
- This can lead to protests, strikes, loss of trust in government and social tensions may rise.

ACTIVITY 7

- Discuss in detail the reasons for public sector failure and link them to typical problems experienced in public sector provisioning. (26)
- Analyse the effects of public sector failure on the communities. (10)

(40)

MICRO-ECONOMICS

EXAMINATION GUIDELINE

TOPIC 6: IMPERFECT MARKET	CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES
Examine the dynamics of imperfect markets with the aid of cost and revenue curves	
6.1 The dynamics of imperfect markets with the aid of cost and revenue curves	• Explain the following in an imperfect market: - **Income/Revenue** o Revenue schedule (a review) o Average and marginal revenue curves - **Costs** o Cost schedule (a review) o Average and marginal cost curves
6.2 Monopolies	• ***Discuss the monopoly in detail (with/without the aid of graphs):*** - **Concept** - **Characteristics** - **Economic profit, economic loss (short run)** - **Economic profit (Long-run)** • Briefly describe the **concept** • Emphasise and highlight good practical examples of businesses in this market • Examine the **characteristics** in detail • Distinguish between natural and artificial monopolies • Explain the downward slope of the demand curve (AR) • Explain the **marginal revenue curve** (Show the relationship between the **demand curve (AR)** and the **MR curve** graphically) • Explain, with the aid of graphs, **economic profit** and **economic loss** • Explain the **long-run equilibrium position** with the aid of a graph
6.3 Oligopolies	• ***Examine the oligopoly in detail:*** - **Concept** - **Characteristics** - **Kinked-demand curve** • Briefly describe the **concept** • Emphasise and highlight good practical examples of businesses in this market • Examine the **characteristics** of the oligopoly • Explain **non-price competition** (emphasise, amongst others, advertising, product differentiation and branding) • Discuss **collusion** (relate to current examples of collusive behaviour) • Distinguish between overt (explicit) collusion (cartels) and tacit (implicit) collusion *(price leadership)* • Broad outline of **prices and production levels** • Broad outline of the rationale of the **kinked demand curve** • Use the **kinked demand curve** and explain why oligopolists are reluctant to compete on prices.
6.4 Monopolistic competition	• Briefly describe the **concept** - Emphasise and highlight good practical examples of businesses in this market. - Briefly discuss product differentiation in this market • Examine the **characteristics** • Explain **non-price competition** (emphasise, amongst others, advertising, product differentiation and branding among other examples of non-price competition) • Broad outline of **prices and production levels**

6.5 Compare and contrast market structures	• ***Compare and contrast any TWO types of market structures (perfect to imperfect/imperfect to imperfect) in detail*** in terms of the following. - **Number of businesses** - **Nature of product** - **Entrance** - **Control over prices** - **Information** - **Examples** - **Demand curve** - **Economic profit/loss** - **Decision-making** - **Collusion** - **Productive/Technical efficiency** - **Allocative efficiency**

T TERMINOLOGY/KEY CONCEPTS

Term	Definition
Artificial monopoly	The barriers to entry are not economic in nature, but are caused by other factors. For example, a patent – this is the legal right of a holder to exclusively manufacture a product.
Cartel	A group of producers whose goal is to form a collective monopoly in order to fix prices and limit supply and competition.
Collusion	An arrangement between businesses with the aim of limiting competition between them by fixing prices.
Imperfect market	When the market price is not a pure reflection of the scarcity (lack) of that product.
Legal monopoly	A monopoly based on laws preventing other companies from competing.
Monopolistic petition	A market structure with many buyers and sellers where entry is relatively easy but the product is differentiated, for example toothpaste.
Monopoly	A market structure where only one seller (producer) operates. Entry is blocked and the product has no close substitutes.
Natural monopoly	High development costs prevent others from entering the market. A single business can serve the whole market at a lower price due to economies of scale, for example large utilities such as water and electricity.
Non-homogenous	Manufacturers make variations of their products in order to make it difficult for other companies to copy that specific product.
Oligopoly	A market structure where only a few sellers operate. Entry is difficult and products can be differentiated or standardised.
Price leadership	A situation where one firm fixes a price and the others accept it as the market price.

6.1 DYNAMICS OF IMPERFECT MARKETS USING COST AND REVENUE CURVES

An imperfect market in economics is a market structure where the conditions of perfect competition are not fully met, leading to inefficiencies in how goods and services are produced and priced.

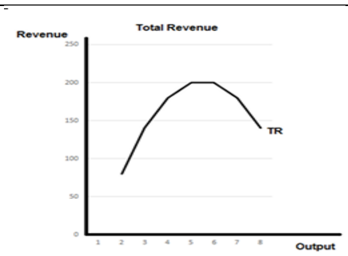
In a perfectly competitive market, you'd expect many buyers and sellers, identical products, full information, and no barriers to entry. Imperfect markets break one or more of these assumptions. Common features include limited competition or none at all, product differentiation, barriers to entry, imperfect information, price-setting power etc.

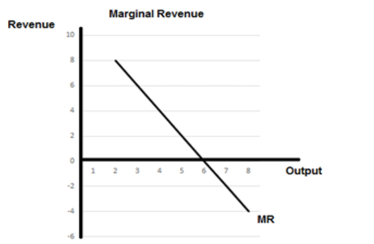
Types of imperfect markets

- Monopoly: One firm controls the entire market (e.g., a single electricity provider in a region)
- Oligopoly: A few large firms dominate (e.g., airline or telecom industries)
- Monopolistic competition: Many firms, but products are differentiated (e.g., restaurants, clothing brands).

EXPLANATION OF REVENUES & COSTS

Income / Revenue in an Imperfect Market

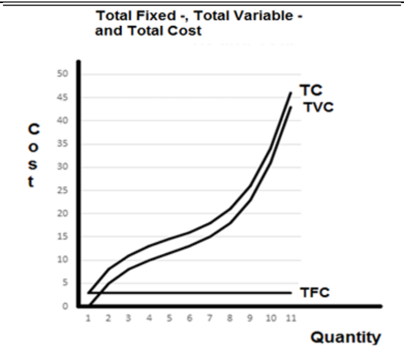
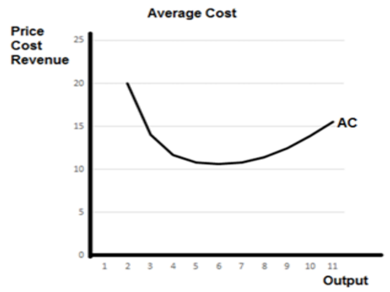
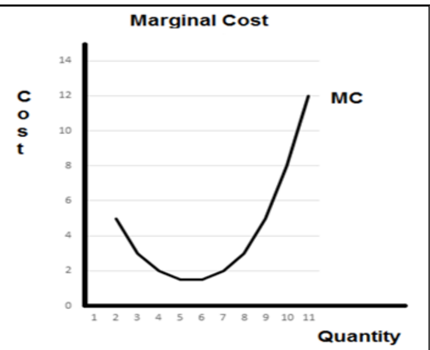
Revenue	**Description**	**formula**	**curve**
Total revenue (TR)	Total revenue is the money a firm earns from selling goods or services.	(TR) = Price × Quantity	 Total revenue increase as the level of output increase to a certain amount but then it decreases again.

Average Revenue (AR)	Average revenue is the revenue per unit sold which the same as the demand curve	(AR) = TR ÷ Quantity	 AR curve is the same as the demand curve and it slopes downwards in imperfect markets
<u>Marginal Revenue (MR)</u>	Marginal revenue is the extra revenue from selling one more unit	(MR) = ∆(Change in) TR ÷ ∆(Change in) Quantity	 MR curve also slopes downwards and lies below the AR curve MR can become negative if total revenue starts falling

Worked example of revenue schedule

Quantity (Q)	Price (P) (AR)	Total revenue (TR= P x Q)	Average revenue (AR =TR ÷ Q)	Marginal revenue (MR = ∆TR ÷ ∆Q)
0	R11	0	0	-
10	R10	100	10	10 *(100 ÷ 10)*
20	R9	180	9	8 *(80 ÷ 10)*
30	R8	240	8	6
40	R7	280	7	4
50	R6	300	6	2
60	**R5**	**300**	**5**	**0**
70	R4	280	4	-2
80	R3	240	3	- 4
90	R2	180	2	-6
100	R1	100	1	-8

Costs in an Imperfect Market

Revenue	**Description**	**formula**	**curve**
Total Cost (TC)	Costs are expenses firms pay to produce goods or services. *Fixed costs* are all those costs which stay the same, no matter how many products are produced by the enterprise. It must be paid whether 0 or more units are being produced. *Variable costs* are those costs that change as the number of products being produced (output) changes.	(TC) = FC+VC	 Total cost curve increases slowly at first, and when it reaches a particular point, the variable cost starts to increase at a faster rate.
Average cost (AC)	Average cost is the cost per unit of production.	(AC) = TC ÷ Quantity	 AC curve is usually U-shaped, it has a fixed part and a variable part. Adding them together the AC will decrease to a point and then start to increase.
Marginal Cost (MC)	Marginal cost is the extra cost of producing one more unit	(MC) = ∆(Change in) TC ÷ ∆(Change in) Quantity	 MC curve cuts AC at its lowest point, the curve decrease to a point and starts to increase again.

Cost Schedule (Review)

Quantity Output	**Price**	**TFC**	**TVC**	**TC TFC+TVC**	**AC TC÷Q**	**MC ΔTC÷ΔQ**
0	100	10	0	10	-	-
1	90	10	10	20	20	10
2	80	10	18	28	14	8
3	70	10	25	35	11.67	7
4	60	10	33	43	10.75	8
5	50	10	43	53	10.6	10
6	40	10	55	65	10.83	12
7	30	10	70	80	11.43	15
8	20	10	90	100	12.5	20
9	10	10	115	125	13.89	25
10	0	10	145	155	15.5	30

Relationship Between Cost and Revenue Curves

Profit is made where MR = MC

Firms in imperfect markets do not produce where P = MC. They charge a higher price and produce less output than perfect competition

ACTIVITY 1

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

The revenue schedule of a business

Quantity Sold	Price per Unit (R)	Total Revenue (R)	Marginal Revenue (R)	Average Revenue (R)
0	20	0	N/A	N/A
1	18	18	18	18
2	16	32	14	16
3	14	42	10	14
4	12	48	6	12
5	10	50	2	10
6	8	48	-2	8
7	6	42	-6	6
8	4	32	-10	4
9	2	18	-14	2
10	0	0	-18	0

1.1.1 Identify the output quantity where the business would maximize its revenue. (1)

1.1.2 How is total revenue calculated for a monopoly? (1)

1.1.3 Briefly describe the term *imperfect market.* (2)

1.1.4 Why is the marginal revenue of a monopoly less than its average revenue? (2)

1.1.5 How does the elasticity of demand affect a monopoly's pricing strategy? (4)

6.2 MONOPOLIES

Concept of a Monopoly

A monopoly is a market structure where:

- There is only ONE seller
- The firm produces a unique product
- There are no close substitutes
- The firm is a price maker

Examples of monopolies in South Africa:

- Eskom: The electricity supplier, controlling almost all electricity generation and transmission in South Africa.
- Transnet: Controls the majority of the national rail infrastructure and major port terminals.

Characteristics of monopoly

1. Number of sellers

- In a monopoly, there is only one seller in that supplies the entire market.
- Because there are no other sellers, the monopolist faces no direct competition.

2. Market entry

- Entry into a monopoly market is very difficult or impossible.
- This is because of high barriers to entry, such as:
  - Large start-up costs
  - Government laws and licenses
  - Patents and copyrights
  - Control over important resources

  These barriers prevent new firms from entering the market.

3. Demand curve

- A monopoly faces a downward-sloping demand curve.
- This demand curve is also the Average Revenue (AR) curve.

This means:

- If the monopolist wants to sell more goods, it must lower the price as higher prices lead to lower quantity demanded

4. Profits

A monopoly can make economic (abnormal) profits:

- In the short run and also in the long run

This is possible because:

- There is no competition and new firms cannot enter the market to reduce profits

5. Control over price

A monopolist is a price maker, not a price taker.

This means the firm has control over the price and decides how much to produce, they then charge a price on the demand (AR) curve

However, the monopolist cannot charge any price it wants, because consumers still respond to prices.

6. Collusion

Collusion does not exist in a monopoly because there is only one firm and collusion requires more than one firm agreeing on prices or output

7. Decision making

All business decisions are made by one firm only.

The monopolist decides on the quantity produced, price charged and level of output (where MR = MC)

There is no need to consider competitors' actions.

8. Information availability

- In a monopoly information such as the true costs of production and whether prices are fair is often limited for consumers

The monopolist may have more information than buyers and this leads to unequal access to information.

9. Efficiency

Monopolies are often inefficient, especially:

- Allocative inefficiency (their price is greater than marginal Cost)
- Productive inefficiency (Not producing at lowest average cost)

Reasons for inefficiency include:

- Lack of competition
- No pressure to reduce costs or improve quality

Distinguish between Natural and Artificial Monopolies

Natural Monopoly

A natural monopoly exists when one firm can supply the whole market at the lowest cost.

There are very high start-up costs and large infrastructure needed to build such a firm therefore it would be too expensive to have many firms

Artificial Monopoly

An artificial monopoly is created by law or government action.

Monopolists have patents, copyrights, licences or legal protection to protect their ideas from being copied.

Examples include patented medicines and broadcasting rights.

Competition is prevented by legal rules.

Downward Slope of the Demand Curve (Average Revenue – AR)

In a monopoly, the demand curve is the same as the Average Revenue (AR) curve.

The AR curve slope downwards from left to right because:

- Consumers will buy more only if the price is lowered
- A higher price means fewer units demanded

- The monopolist must reduce price to increase sales

Marginal Revenue (MR) Curve

Relationship between AR and MR (Graphically Explained)

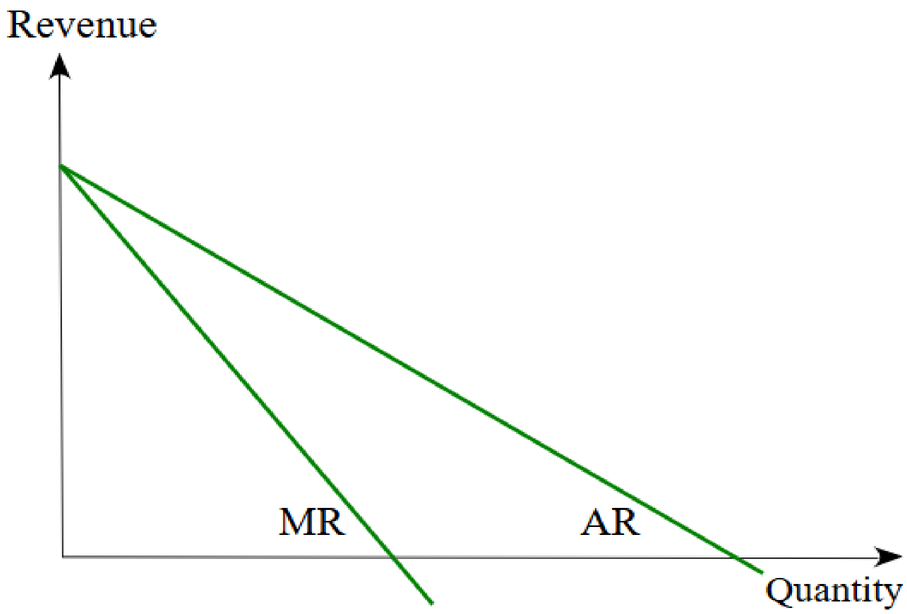
Marginal Revenue (MR)

- MR is the extra revenue from selling one more unit. In a monopoly, MR is less than AR. MR slopes downwards faster than AR

Relationship between AR and MR

- AR = demand curve
- MR lies below the AR curve

When price is reduced to sell extra units revenue on the last unit increases while revenue on previous units decreases which causes MR to fall faster than AR

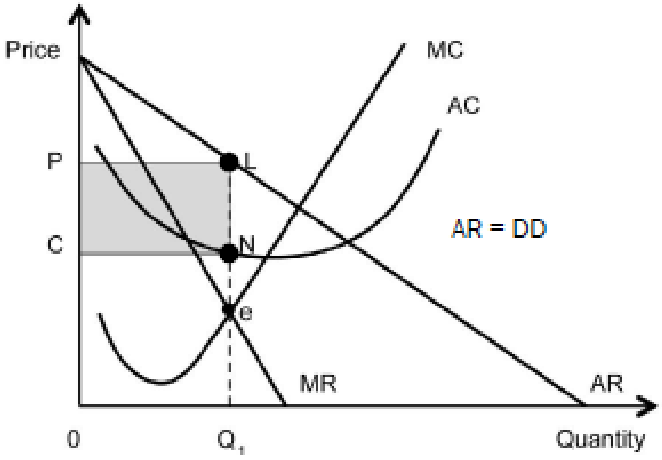


Economic profit and Economic loss graphs in Monopoly

Economic Profit

Economic profit is defined as the difference between a firm's total revenue and the total cost of all resources used in production.

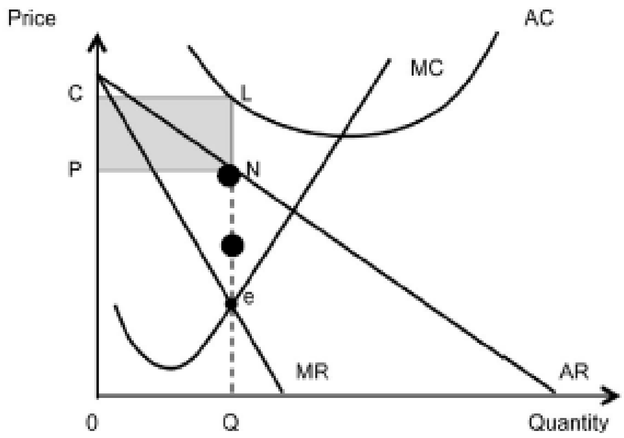
Formular: Economic Profit = Total Revenue – Total Costs



- The graph shows a monopoly firm facing a downward-sloping average revenue curve, labelled AR (or demand, DD), which indicates that the firm must lower price to sell more output.
- The marginal revenue (MR) curve lies below the AR curve because each additional unit sold adds less to total revenue than the price at which it is sold.
- The firm maximizes profit at the point where marginal cost (MC) intersects marginal revenue (MR), which occurs at output level Q_1.
- At this profit-maximizing output Q_1, the firm determines the price by moving up to the AR curve, setting a higher price P rather than the lower marginal cost price.
- The average cost (AC) curve shows the cost per unit, and at Q_1 the cost is C, which is below the price P, indicating that the firm earns supernormal (abnormal) profit.
- The shaded rectangle between price P and cost C over the quantity Q_1 represents the total supernormal profit earned by the monopolist.

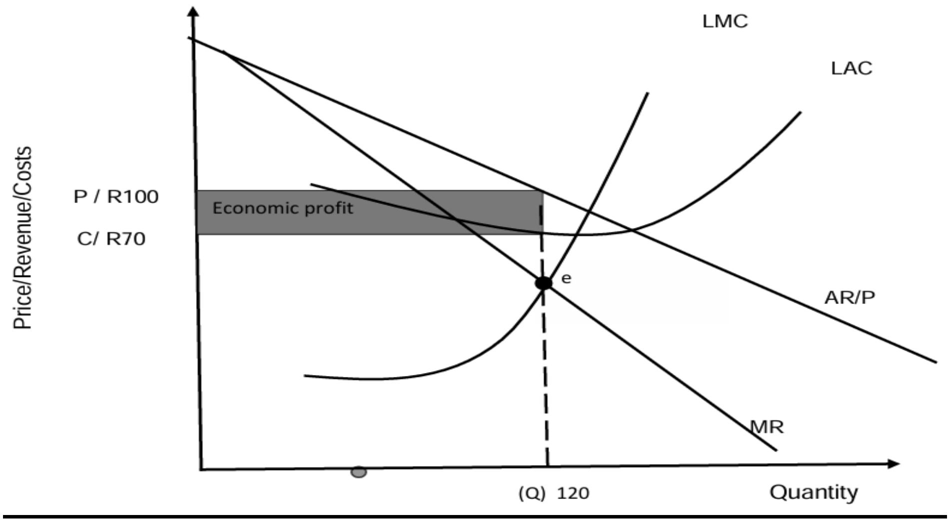
Economic Loss

Economic loss occurs when a firm's total revenue is less than its total economic costs



- The graph shows a monopolist because the average revenue (AR) curve slopes downward and the marginal revenue (MR) curve lies below AR.
- The firm determines its profit-maximising output at quantity Q, where the marginal revenue (MR) curve intersects the marginal cost (MC) curve at point E.
- After choosing output Q, the monopolist sets the price at P, which is found by moving vertically up from Q to the average revenue (AR) curve.
- At the same output Q, the average cost (AC) curve lies above the price level, showing that average cost (C) is greater than price (P).
- Because P < AC, the monopolist makes an economic loss per unit of (C − P) on every unit produced.
- The shaded rectangle represents the total economic loss, calculated as the loss per unit multiplied by the quantity Q produced.

Long term equilibrium (long run economic profit)



Due to the barriers to entry, monopolist is protected therefore it continue to make profit even in the long run.

− The firm maximises profit where Marginal cost is in equilibrium with the marginal

revenue (MC =MR).

− The profit maximising quantity is 120 and the Price is R100.

− The firm's average cost is R70, therefore resulting in an economic profit of R30 per unit

sold.

− The total economic profit made will be = TR(P x Q) - TC(AC x Q)

(100 x 120) - (70 x 120)

1 2000 - 8400

= R3600

ACTIVITY 2

2.1 Briefly describe the following concepts:

2.1.1 Monopoly (2)

2.1.2 Long run (2)

2.1.3 Price maker (2)

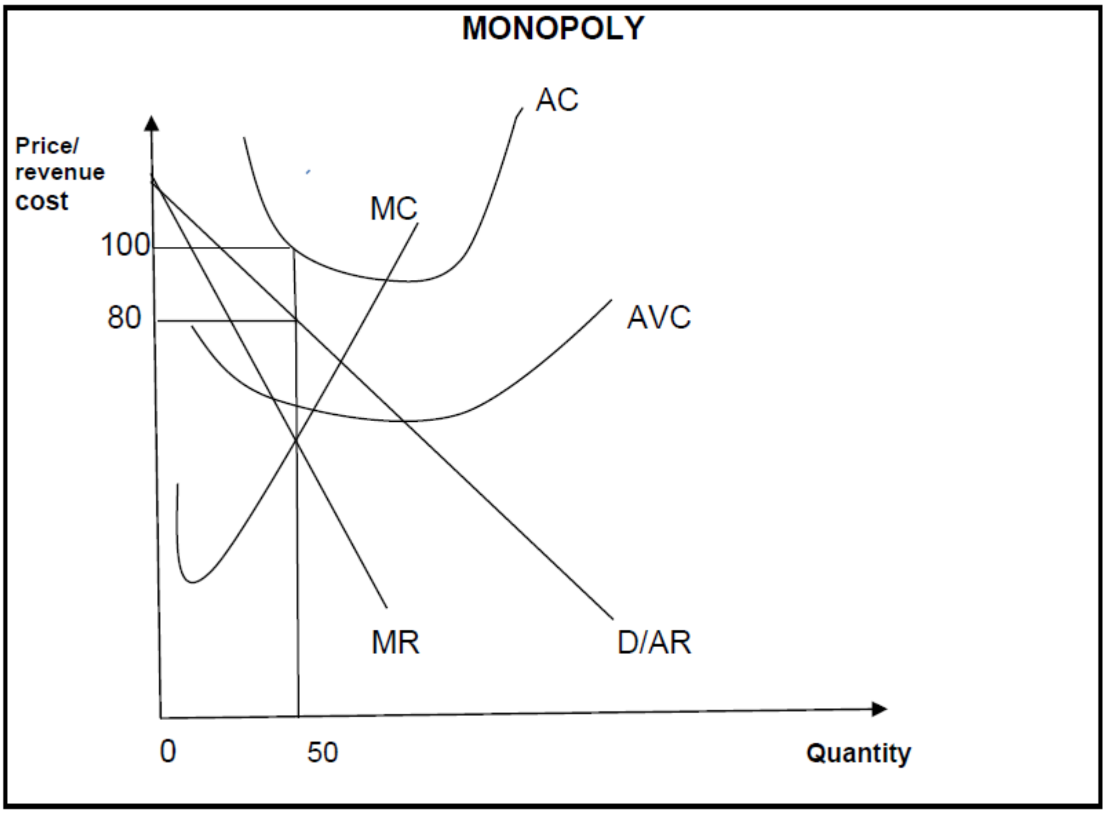
2.1.4 Productive inefficiency (2)

2.2 Differentiate between *natural* monopolies and *artificial* monopolies. (8)

2.3 Explain with an aid of a well labelled graph economic profit of a monopolist (8)

ACTIVITY 3

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



3.1.1 Identify a curve that is essential for determining price. (1)

3.1.2 What kind of products are produced by a monopoly? (1)

3.1.3 Describe the concept *marginal revenue (MR*). (2)

3.1.4 Why are monopolies able to make economic profits in the long run? (2)

3.1.5 Calculate profit/loss from the above graph. Show ALL calculations. (4)

6.3 OLIGOPOLY

The concept of an oligopoly

An oligopoly is a market structure in which a few large firms dominate the market and sell either similar (standardised) or differentiated products. Because there are only a small number of firms, the actions of one firm directly affect the others, creating interdependence between firms.

Practical examples of oligopolies:

- The mobile network industry (e.g. MTN, Vodacom, Cell C, Telkom)
- The soft-drink industry (e.g. Coca-Cola and PepsiCo)
- The banking sector (e.g. Standard Bank, ABSA, FNB, Nedbank)
- The airline industry in many countries

These markets are dominated by a few large firms with strong brands and high barriers to entry.

Characteristics of Oligopoly

1. Few dominant firms

An oligopoly consists of a small number of large firms that control most of the market. Each firm holds a significant share, so its decisions affect the others.

2. Interdependence

Firms are highly interdependent, meaning each firm must consider the reactions of rivals when making decisions about pricing, output, or advertising. This makes decision-making more strategic.

3. Barriers to entry

There are strong barriers preventing new firms from entering the market, such as high capital requirements, economies of scale, brand loyalty, and legal restrictions.

4. Product differentiation or homogeneity

Products may be identical (e.g., steel, oil) or differentiated (e.g., cars, smartphones). Differentiation often leads to heavy advertising and branding.

5. Price rigidity (kinked demand curve)

Prices in oligopolies tend to be relatively stable. Firms may avoid changing prices because rivals are likely to match price cuts but ignore price increases, leading to a kinked demand curve.

6. Non-price competition

Firms often compete using advertising, quality improvements, branding, and customer service rather than price changes.

7. Possibility of collusion

Firms may cooperate formally or informally to reduce competition, such as forming cartels to fix prices or output levels, though this is often illegal.

8. Supernormal profits in the long run

Due to barriers to entry and limited competition, oligopolies can earn long-run abnormal profits.

Non-price competition in an oligopoly

Oligopolistic firms often avoid price competition and instead compete using non-price methods, such as:

- Advertising to increase brand awareness
- Product differentiation, to improve the quality or add more features
- Branding, which creates customer loyalty
- Promotions, packaging, and after-sales service

Non-price competition is emphasised because price wars can reduce profits for all firms.

Collusion in an oligopoly

Collusion occurs when firms cooperate rather than compete in order to increase profits. This may involve:

- Fixing prices
- Limiting output
- Sharing markets

An example of collusion is when fuel companies or construction firms agree to charge similar prices.

Types of collusion (Explicit vs tacit collusion)

Explicit /overt (direct) collusion occurs when there is a formal setting firms openly agree to fix prices, often forming a **cartel**. This is usually illegal.

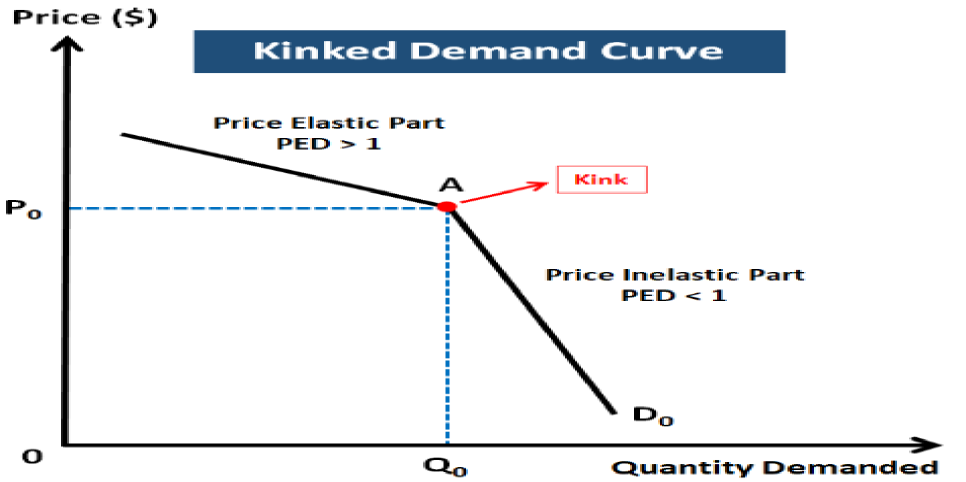
Tacit / covert (implicit) collusion occurs without formal agreements, such as **price leadership**, where one dominant firm sets the price and others follow.

Prices and production levels

- The interdependence among firms means that each firm's pricing and production decisions directly impact the actions of its competitors.

- This is because prices are often rigid or stable and firms are reluctant to change prices because competitors may react aggressively
- Output decisions are influenced by expected reactions from rival firms, as a result, price competition is limited, and output tends to be restricted.
- Oligopoly firms are allocatively inefficient because the resources are used in a way that quantity produced is much less than it could be.
- Oligopolistic firms also are inefficient productively, because it produces its product at a higher cost than it can possibly be.

Rationale of the kinked demand curve



The diagram illustrates the kinked demand curve, which is used to explain price rigidity in an oligopoly.

- The demand curve has a kink at point A, which represents the current market price (P_0) and current output level (Q_0) faced by firms in an oligopoly.
- The upper part of the demand curve (above point A) is price elastic (PED > 1), meaning that if a firm raises its price above P_0, consumers will respond strongly by switching to competitors, causing a large fall in quantity demanded.
- The lower part of the demand curve (below point A) is price inelastic (PED < 1), meaning that if a firm lowers its price below P_0, competitors will match the price cut, so the firm gains only a small increase in quantity demanded.
- Because rivals do not follow price increases but do follow price decreases, firms face different demand elasticities above and below the kink, creating the kinked shape of the demand curve.
- As a result, firms in an oligopoly are reluctant to change prices and instead compete through non-price competition such as advertising, branding, and product differentiation. It can lead to price instability.

.Why oligopolists are reluctant to compete on price

The kinked demand curve shows that:

- Price increases lead to large losses in demand
- Price decreases lead to small gains in demand

Therefore, the best position for the firm's price is at the kink as this can give it the highest possible revenue. The quantities at this price can allow the firm to maximise profits as well.As a result, oligopolists prefer stable prices and compete using non-price competition instead.

ACTIVITY 4

4.1 Study the information below and answer the questions that follow.

> **DECLINE IN LARGE CHAIN STORES**
>
> A decrease in space occupied by South African chain stores is noticeable, as these groups are reducing their services in shopping malls. As South Africa moves towards more digital channels (online shopping), established chain stores such as Shoprite, Checkers and Usave have downscaled their branches around the country.
>
> [Source: https://www.news24.com/news 24]

4.1.1	Identify ONE non-price competition method that chain stores use to compete, from the extract above.	(1)
4.1.2	Name the market structure associated with chain stores.	(1)
4.1.3	Briefly describe the term *collusion*	(2)
4.1.4	Explain how advertising contributes to product differentiation in oligopolistic market structure?	(2)
4.1.5	What negative consequences could the closing down of chain stores have on employees?	(4)

ACTIVITY 5

5.1	Name any two examples of industries in oligopolistic market structure.	(2)
5.2	Briefly describe the concept *oligopoly*	(2)

5.3 Briefly discuss the importance of government intervention in regulating competition in the market. (4)

5.4 Distinguish between *overt collusion* and *tacit collusion*. (8)

5.5 Explain with an aid of a well labelled kinked demand curve, why oligopolists should not compete on prices (8)

6.4. MONOPOLISTIC COMPETITION

Concept of monopolistic competition

Monopolistic competition is a market structure with **many buyers and many sellers**, where firms sell similar but **differentiated** products. Each firm acts as a **price maker** to a limited extent because product differentiation gives **some control over price**, but close substitutes limit this power.

Practical examples of monopolistic competition

Good practical examples of monopolistic competition include restaurants, hair salons, clothing retailers, coffee shops, toothpaste brands, and fast-food outlets. These businesses sell products that are similar in purpose but differ in brand, quality, style, packaging, or service, which allows consumers to choose based on preference rather than price alone.

https://storage.googleapis.com/dayughetuvtxle/what-is-a-monopoly-market-examples.html

Product differentiation in monopolistic competition

Product differentiation refers to firms making their products slightly different from those of competitors. Differentiation may be achieved through advertising, branding, product differentiation, packaging, promotions, customer service, and loyalty programmes.

As a result, each firm faces a downward-sloping demand curve because consumers are willing to pay more for a preferred product.

Characteristics of monopolistic competition

The main characteristics of monopolistic competition are:

- Many buyers and sellers in the market
    - Even though sellers are small in size, their combined turnover is large.
- Freedom of entry and exit in the long run
    - The are no barriers preventing new firms from entering the market and existing firms to exit the market.
- Differentiated products
    - Products in monopolistic firms are not exactly the same but are similar, product differentiation and non price competition makes this possible.
- Firms have some or little control over price
    - Each monopolistic seller is a price maker but setting higher prices or lower prices is difficult as they face competition from substitutes
- Imperfect information
    - Information is incomplete for both buyers and sellers as consumers may be influenced by advertising
- Downward slopping demand curve

- Demand curve is downward sloping with relative elasticity. − This relative price elasticity is an indication that each seller has many competitors and customers can always look for better offers.

- Economic profit in the short run

  - Economic profit is only possible the short run and in the long run a monopolist can only make normal profit.
  - This is due to arrival on new firms which increase supply but decrease prices.

Non-price competition (emphasis)

- Firms in monopolistic competition rely heavily on non-price competition rather than price competition. This includes.
- **Branding** which allows a company to establish a unique identity and positioning in the minds of consumers. Firms can make their products stand out from competitors, even if the products are similar in function or quality.
- Strategic **packaging** enables brands to communicate their identity, protect products, and create a memorable experience for consumers, which can lead to increased loyalty and higher perceived value.
- **Quality and taste**- consumers often prefer products that offer superior features or performance over those that are cheaper. Even though taste is subjective, it can still influence consumer decisions.
- **Customer service**- enhancing customer experience and service is a strong strategy as it keeps them coming back (loyalty).
- Strategic **locations** can enhance a firm's visibility, accessibility, and customer convenience.

These methods are used to attract customers, build brand loyalty, and increase demand without lowering prices.

Prices and production levels

In the short run, firms in monopolistic competition may make economic profits or economic losses. In the long run, new firms enter the market if profits exist, or leave if losses occur, leading to normal profit. Prices tend to be higher than in perfect competition, while output is lower, due to excess capacity.

ACTIVITY 6

6.1 Study the information below and answer the questions that follow.

MONOPOLISTIC COMPETITION

Unlike perfect competition, monopolistic competitive firms have products that are not perfect substitutes. Consumers have clearly defined preferences and sellers attempt to differentiate their products from those of competitors. In the short run the monopolistically competitive hotel can exploit the heterogeneity of its brand so as to reap positive economic profit.

There is a variety of hotel options available that offer various facilities from conference rooms to beauty salons, each hotel offers something unique.

[Source: hotelnewsresource.com/article3232,html. Accessed on 12 February 2023.]

6.1.1	Name any ONE way in which the above hotels can differentiate their product.	(1)
6.1.2	What kind of profit is made by a monopolistic competitor in the long run?	(1)
6.1.3	Briefly describe the concept *monopolistic competition*.	(2)
6.1.4	Briefly explain product differentiation as a characteristic of monopolistic competition.	(2)
6.1.5	Why would owners of these hotels be unable to make economic profits in the long run?	(4)

ACTIVITY 7

7.1	Briefly discuss product differentiation as a characteristic in a monopolistic competition firm.	(8)
7.2	Discus how does the availability of substitutes influence pricing decisions in imperfect markets?	(8)

6.5 Compare and contrast market structures

Aspect	Perfect Competition	Monopoly	Oligopoly	Monopolistic Competition
Number of businesses	A very large number of small firms operate in the market.	Only one firm operates in the entire market.	A small number of large firms dominate the market.	Many firms operate in the market.
Nature of product	Products are homogeneous and identical.	The product is unique with no close substitutes.	Products may be standardised or differentiated.	Products are differentiated by branding, quality, or style.
Entrance	Free entry and exit with no barriers.	Very high barriers to entry exist.	Entry is difficult due to high costs and strong brands.	Entry is relatively easy in the long run.
Control over prices	Firms are price takers.	The monopolist is a price maker.	Firms have some control but are interdependent.	Firms have limited control due to differentiation.
Information	Perfect information is available.	Information is imperfect.	Information is imperfect.	Information is imperfect and influenced by advertising.
Examples	Agricultural markets.	Public utilities and patented products.	Mobile networks and banks.	Restaurants, salons, clothing stores.
Demand curve	Perfectly elastic demand curve.	Downward-sloping demand curve.	Kinked demand curve.	Downward-sloping demand curve.
Economic profit/loss	Normal profit in the long run.	Economic profits possible in the long run.	Economic profits possible in the long run.	Normal profit in the long run.

Decision-making	No individual firm influences the market.	Firm decides price and output.	Firms consider rivals' reactions.	Firms act independently but face competition.
Collusion	Impossible due to many firms.	Not applicable.	Possible through cartels or price leadership.	Unlikely due to many firms.
Productive/Technical efficiency	Achieved in the long run.	Not productively efficient.	Generally not productively efficient.	Not productively efficient.
Allocative efficiency	Achieved where P = MC.	Not allocatively efficient.	Usually not allocatively efficient.	Not allocatively efficient.

ACTIVITY 8

8.1 Compare and contrast Monopoly and Monopolistic market structures in detail (26)

Evaluate the impact of monopolies on the consumers. (10)

MARKET FAILURE

EXAMINATION GUIDELINES

TOPIC 7: MARKET FAILURE	CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES
Explain the reasons for and consequences of market failures, reflecting on the cost-benefit analysis	
7.1 The causes of market failures	• ***Discuss in detail how the following factors lead to the misallocation of resources in the market*:** - **Externalities** - **Missing markets** - **Imperfect competition** - **Lack of information** - **Immobility of factors of production** - **Imperfect distribution of income and wealth**
7.2 Consequences of market failures	• Compare the following inefficiencies with the aid of a well-labelled graph: - **Productive inefficiency** - **Allocative inefficiency** • Describe the following with the aid of well-labelled graphs: - **Negative externalities** - **Positive externalities** • ***Discuss in detail state intervention as a consequence of market failures, with the aid of relevant graphs*** - **Direct control** - **Imperfect markets** - **Minimum wages** - **Maximum prices** - **Minimum prices** - **Taxes and subsidies** - **Subsidies on goods and services** - **Redistribution of wealth** - **Government involvement in production**
7.3 Cost-benefit analysis	• Describe the **concep**t cost-benefit analysis • Describe the **reasons** for a CBA • Apply the CBA in **practice**

TERMINOLOGY/ KEY CONCEPTS

Term	Definition
Allocative Inefficiency	When resources are not allocated in the right proportions and the product mix does not match consumers' tastes. It is possible to reallocate resources to make one person better off while not making someone else worse off.
Allocative / Pareto Efficiency	Occurs when resources cannot be readjusted to make one consumer better off without making another consumer worse off. There is zero opportunity cost.
Black Market	An illegal market in which illegal goods are bought and sold or illegal prices are charged.
Cost-Benefit Analysis	An analysis done by government which weighs the costs and benefits of a project to determine whether it should be carried out.
Demerit Goods	Goods that are seen to be socially harmful, e.g. cigarettes and gambling.
Externalities	Costs or benefits to third parties which are not included in the market price of a good.
Market Failure	When the forces of demand and supply fail to allocate resources efficiently.
Maximum Price / Price Ceiling	A price set below the equilibrium price or market price to make goods affordable.
Merit Goods	Goods that are beneficial to society that every individual should consume irrespective of their income, e.g. healthcare and education.
Minimum Price / Price Floor	A price set above the equilibrium price or market price to allow producers to make a fair profit.
Minimum Wage	A wage rate set by the government, below which no employer can pay workers. It is set above the equilibrium wage rate.
Negative Externalities	A cost to a third party which is not included in the market price of a good, e.g. pollution.
Non-Excludable Goods	Goods whereby individuals can benefit even if they do not pay for it, e.g. television or the police.
Non-Rival Goods	Goods when consumed by one person will not reduce consumption by another individual, e.g. street lights.
Positive Externalities	The benefit gained by a third party which is not included in the market price.
Private Benefit	The gain a consumer gets from using a good or the gain a producer gets from selling a product.

Private Cost	The actual cost paid by a consumer when a good is purchased, e.g. R150 000 for a car.
Producer Subsidies	A cash allowance given to producers to lower the cost of production and allow more goods to be supplied at a lower price.
Productive / Technical Inefficiency	When resources are not used appropriately to produce the maximum number of goods at the lowest cost and best quality.
Public Works Programme	A government initiative aimed at reducing poverty by creating temporary jobs in infrastructure and other areas.
SABS – South African Bureau of Standards	An institute that monitors the quality of goods in South Africa.
Social Benefit	The benefit gained by society from the use of a good or service. It is calculated by adding private and external benefits.
Social Cost	The cost of a good or service paid by society. It is calculated by adding private and external costs.

THE CAUSES OF MARKET FAILURES

Meaning of Market Failure

Market failure happens when the market does not use resources in the best way. This means goods and services are not produced in the right quantities or not for the people who need them most. As a result, there is a misallocation of resources.

Causes of Market Failure and How They Lead to Misallocation of Resources (possible essay)

1. Externalities(spill-over-effect)

Externalities are costs or benefits that affect people not directly involved in producing or consuming a good.

Externalities are the cost and benefits that covert private cost and benefits into social costs and benefits

Negative externalities (e.g. pollution):

A negative externality occurs when an action creates a cost or harm for others who didn’t choose to be involved.

- Private costs are internal costs by the consumer and the producer when they buy or produce goods and services.
- Social costs are the costs the sum of total private costs and external costs e.g. in the industrial site, private costs are the costs of construction and paying labour while external costs are bourn by the society like air pollution and chemical wastes that kills their livestock.

Factories may pollute the air or water while producing goods.

The producer does not pay for the damage to the environment or people's health.

→ Too much of the harmful good is produced.

→ Resources are misallocated because social costs are ignored.

<u>Positive externalities (e.g. education):</u>

A positive externality occurs when an action creates a benefit for others who didn't choose to be involved.

Social benefits are the sum total of private benefits and external benefits of production/consumption.

- Private benefits are enjoyed by those who buy the goods and those who produce it. e.g. a family enjoys using appliances at home while the producers enjoy the profits gained. External benefit would be convenience at home for consumers and more money for producers to do more.

Education benefits both the learner and society.

However, individuals may not pay for enough education.

→ Too little of the good is produced.

→ Resources are under-allocated to important services.

Negative externalities are often over-produced while positive externalities are under-produced leading to market failure.

2. Missing Markets

A missing market exists when no market is created for a good or service, even though providing it would benefit society. In other words, something valuable is not bought and sold at all.

Examples include clean air, street lighting, and national defence.

Because these goods are not sold, private producers are not interested in producing them. The government therefore provides these goods and services.

- Public goods are goods that are provided by the government and bare two features: **non-rivalry** and **non-excludability**.

Non-rivalry means that consumption by one individual does not diminish consumption by another individual.

Non-excludability means that consumption cannot be confined to only those who pay for it. *Free riders* can also use them

- Community goods include services such as defence, police services and street lightning.
- Collective goods are goods that the government provides with a little fee charged, e.g. parks, beach facilities and toll gates.
- Merit goods are those that bring general welfare to the society like health care and education, they are under-supplied and not highly rated by the market.
- Demerit goods are over-consumed that have harmful effects on the society like alcohol, cigarettes and drugs. They are over-supplied than is socially desirable. Government charges excise duty/sin tax to reduce consumption of demerit goods.

→ These goods are under-produced or not produced at all.

→ Resources are not allocated to goods that society needs.

Demand for this market exist but supply is too less or even absent.

3. Imperfect Competition

Imperfect competition happens when markets are dominated by few sellers (monopolies or oligopolies). In such markets, the power often lies to a greater extent with producers than with consumers.

Monopolies and oligopolies may restrict supply in order maximise profits, this can also prevent other firms from competing in the industry.

Consumers have fewer choices.

→ Goods are under-produced and resources are not used efficiently to satisfy consumer needs

4. Lack of Information

Lack of information occurs when buyers or sellers do not have full knowledge.

Consumers may buy poor-quality or harmful products because they don't have enough information.

Producers might not know all the different technologies and production techniques that are available and different resources that can be used to produce more efficiently.

Workers may accept low wages because they don't know better opportunities exist.

→ Wrong choices are made in the market.

→ Resources are misallocated because decisions are based on incomplete information.

5. Immobility of Factors of Production

Immobility means factors of production cannot move easily between jobs or places.

The supply of labour cannot be increased because of the time it takes to be trained or educated.

The labour may lack skills needed in new industries and with greater technological change there is an increasing need for workers to become flexible, update skills and even change occupations or work patterns.

Workers may not move because of family, housing, or transport problems.

→ Labour stays unemployed in some areas while shortages exist elsewhere.

→ Resources are not used where they are most productive.

Physical capital such as equipment, buildings, land and raw materials can only be moved from one place to another at a very high cost.

Structural changes are costly and take a long time to adapt to, leading to market failure.

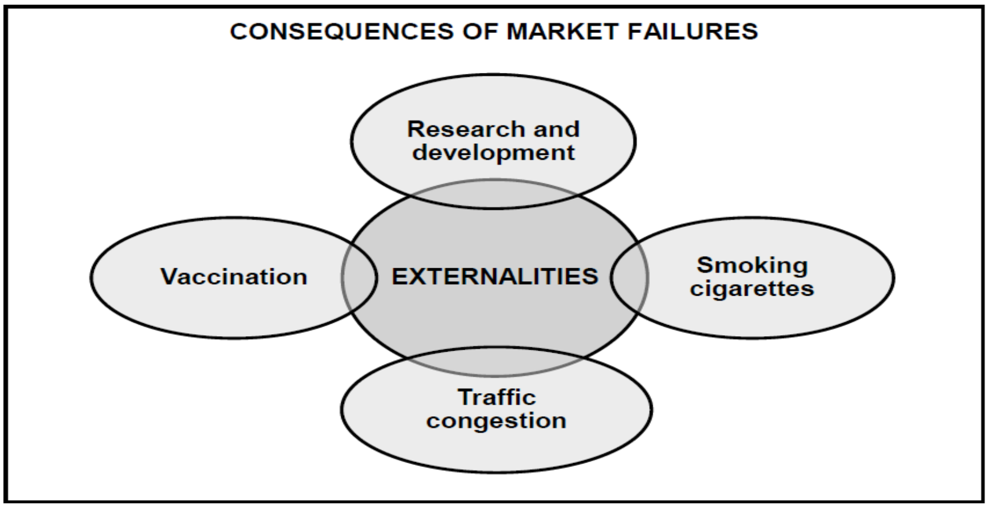
<u>6. Imperfect Distribution of Income and Wealth</u>

Income and wealth are unequally distributed in many countries.

Rich people have more purchasing power than poor people and oods are produced for those who can pay, not those who need them most.
Basic needs of the poor (healthcare, housing) may be under-produced.
Resources are allocated to luxury goods instead of essential goods which leads to market failure.

ACTIVITY 1

1.1 Study the image below and answer the questions that follow



1.1.1	Identify any ONE negative externality in the information above.	(1)
1.1.2	State a private benefit enjoyed by producers of goods and services.	(1)
1.1.3	Briefly describe the term *social cost.*	(2)
1.1.4	Why do positive externalities, such as education, lead to market failure?	(2)
1.1.5	How can the government discourage the consumption of demerit goods?	(4)

ACTIVITY 2

2.1 Discuss in detail the factors that lead to misallocation of resources in the market **(26)**

Examine the effectiveness of the government's involvement in markets for wealth distribution in South Africa (10)

(40)

CONSEQUENCES OF MARKET FAILURES

Meaning of Inefficiency

When market failure happens, the economy becomes inefficient. This means goods and services are not produced at the lowest cost or not in the quantities that society wants most.

The two main inefficiencies caused by market failure are:

- Productive inefficiency
- Allocative inefficiency

Productive/ Technical Inefficiency

Productive inefficiency occurs when goods and services are not produced at the lowest possible cost.

- Production takes place above the lowest point on the Average Cost (AC) curve.
- This means that firms can still reduce cost without reducing the quality of the product but firms fail to do so.
- Firms are not using resources efficiently and waste of resources occurs.

Causes of productive inefficiency

- Firms may use outdated technology, or workers may be poorly trained.
- There may be lack of competition, so firms do not try to reduce costs.
- As a result, the same output could be produced using fewer resources.

Allocative Inefficiency

Allocative inefficiency occurs when goods and services are not produced in the quantities that consumers prefer or want.

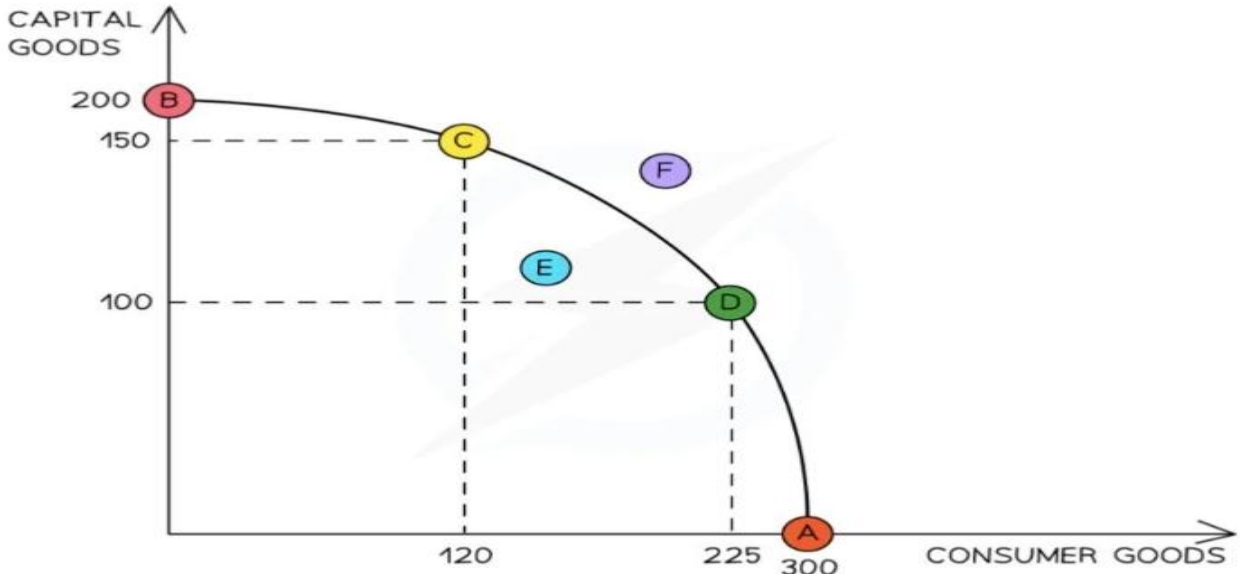
- It happens when price (P) is not equal to marginal cost (MC).
- Society's needs and wants are not fully satisfied.

Causes of allocative inefficiency

- In monopolies, prices are often higher than marginal cost and too few goods are produced at high prices.

- Consumers who need the product cannot afford it.
- Resources are allocated to the wrong goods or wrong quantities.

PRODUCTION POSSIBILITY CURVE



Explanation of the Production Possibility Curve (PPC)

What the PPC shows

The Production Possibility Curve (PPC) shows the maximum combinations of two goods that an economy can produce when all resources are fully used, technology is fixed and resources are used efficiently

Explanation of the Curve

- The PPC is downward sloping, which shows scarcity.
- It means that if the economy produces more consumer goods, it must produce fewer capital goods. This illustrates opportunity cost.

At point B there is high production of capital goods (about 200) and zero production of consumer goods.

it represents a choice that focuses on future economic growth where production is efficient.

At point A there is high production of consumer goods (about 300) and very low production of capital goods

It focuses on current consumption and is where resources are used efficiently
At point C and point D both points lie on the PPC. This means that resources are fully used and production is **efficient**

Point C shows a balanced combination of capital and consumer goods
Point D shows more consumer goods and fewer capital goods than point C

Point E (inside the PPC)

Point E lies inside the curve and shows underutilisation of resources. There is unemployment or inefficient use of resources

The economy can increase production of both goods by moving to the PPC

👉 This point represents **inefficiency**

Point F (Outside the PPC)

Point F lies outside the curve. This combination cannot be achieved with current resources and technology. It can only be reached if technology improves and resources increase (e.g. more workers, better machines)

👉 This point is currently **unattainable**

Opportunity Cost (Using the Graph)

Opportunity cost = The value of the next best alternative forgone when making a choice, which means what you sacrifice in order to choose something else**.**

Moving from B to C:

- Consumer goods increase (from about 120 to more)
- Capital goods decrease (from 200 to 150)

The opportunity cost is the capital goods given up when choosing consumer goods.

Pareto efficiency

Pareto efficiency (or Pareto optimality) is a situation where resources are allocated in the most efficient way possible such that you cannot make one person better off without making someone else worse off.

If a firm can achieve productive and allocative efficiency is said to have achieved pareto efficiency. However, firms often fail to achieve both efficiencies simultaneously so the market fails.

ACTIVITY 3

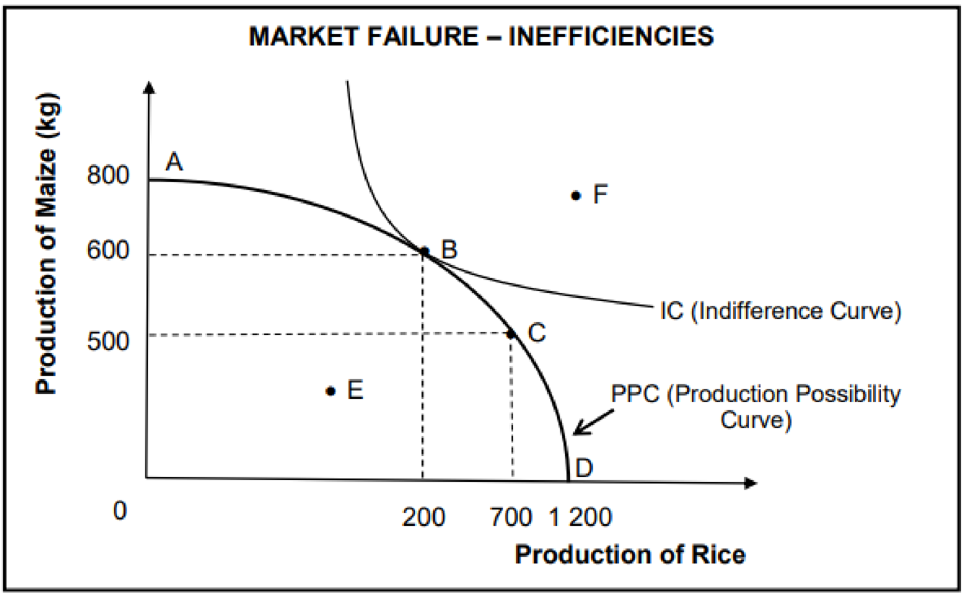
3.1 Briefly describe the concept *Pareto efficiency.* (2)

3.2 Explain with an aid of a well labelled graph technical/productive inefficiency (8)

3.3 Discuss allocative inefficiency as a consequence of market failure (8)

ACTIVITY 4

4.1 Study the graph below and answer the questions that follow



4.1.1 Identify the curve that relates to allocative efficiency (1)

4.1.2 What quantity of rice will be supplied if 800 units of maize are produced? (1)

4.1.3 Briefly describe the term *market failure*. (2)

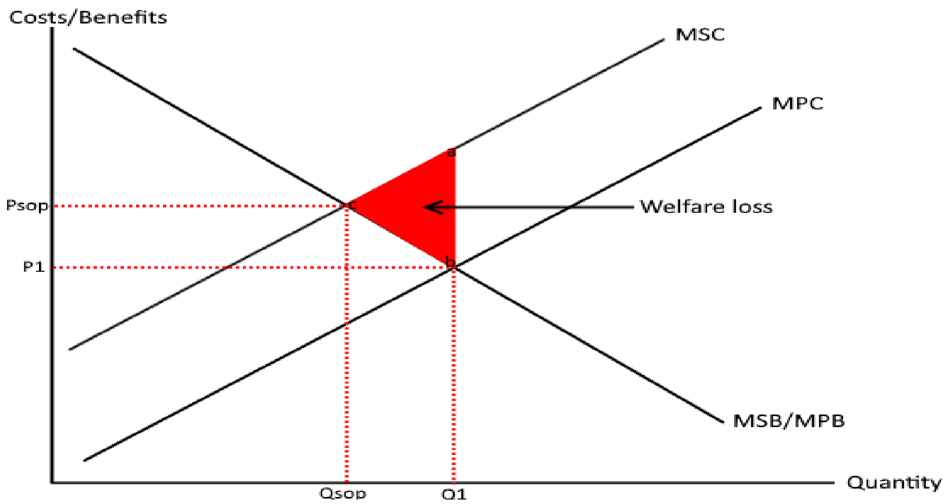
4.1.4 How can the government discourage the consumption of demerit goods? (2)

4.1.5 Why will production at point E be regarded as inefficient? (4)

POSITIVE & NEGATIVE EXTERNALITIES

NEGATIVE EXTERNALITY

A negative externality occurs when the production or consumption of a good or service causes harm or costs to other people who are not involved in the economic activity, and these costs are not reflected in the market price.



This graph explains how a negative externality in production (like pollution from a factory) leads to overproduction, lower prices, and welfare (deadweight) loss in the market.

Explanation of the curves

MSB / MPB (Marginal Social Benefit / Marginal Private Benefit)

- This is the demand curve that shows the benefit that consumers get from the good. In negative externalities, private benefit = social benefit, so the curves overlap.

MPC (Marginal Private Cost)

- Shows the cost to the producer only. Producers consider wages, raw materials, electricity, etc. They ignore external costs like pollution.

MSC (Marginal Social Cost)

Shows the total cost to society. This includes: Private costs (production costs) and External costs (pollution, health problems, environmental damage)

MSC is above MPC because social costs are higher

Market (Private) Equilibrium

- Occurs where MPB = MPC. Output level is Q1 and Price is P1

This is where the market will naturally produce

👉 At this point: Producers ignore the harm to others

Socially Optimal Equilibrium

- Occurs where MSB = MSC. Output level is Q_{sop} and Price is P_{sop}

👉 This is the best output level for society

- External costs are taken into account and pollution and harm are reduced

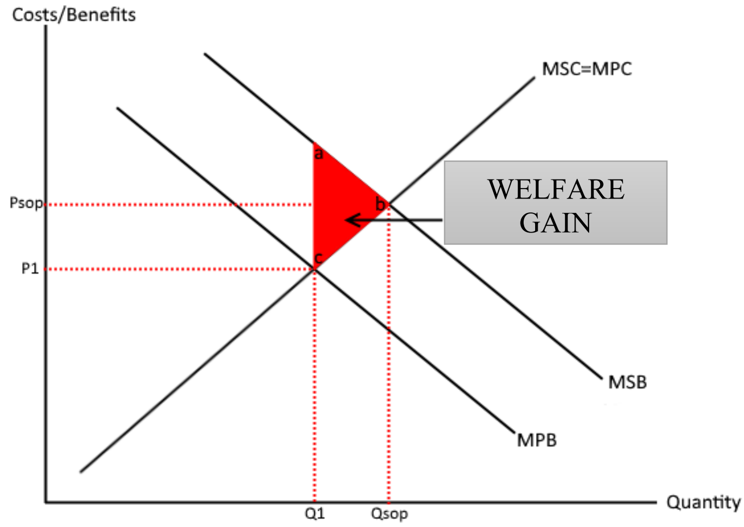
Welfare Loss (Deadweight Loss)

The red shaded triangle between Q_1 and Q_{sop} shows welfare loss

This happens because extra units are produced and the cost to society is greater than the benefit

👉 Society loses because of overproduction

POSITIVE EXTERNALITY



The graph compares private benefits and costs with social benefits and costs, and highlights how under-consumption or under-production occurs when positive externalities are ignored.

This indicates no negative externality in costs.

Firms face the full cost of production.

The MPB reflects the benefit received directly by consumers meaning consumers only consider their own benefit when deciding how much to consume.

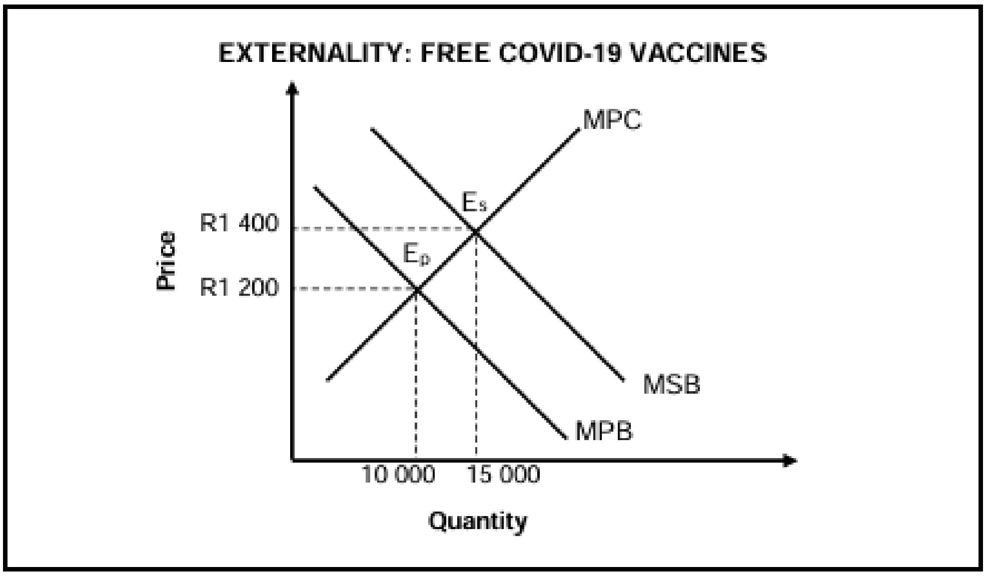
MSB (Marginal Social Benefit)

The upper downward-sloping curve labelled "MSB" includes private benefit plus External benefit to society.

The vertical gap between MSB and MPB represents the positive externality.

ACTIVITY 5

5.1 Study the following graph and answer the questions that follow.



5.1.1	What type of externality is depicted in the graph above?	(1)
5.1.2	Identify the socially efficient level of production in the graph above.	(1)
5.1.3	Briefly describe the term *Externality.*	(2)
5.1.4	Why would a free supply of the COVID-19 vaccines NOT necessarily lead to a market failure?	(4)
5.2	Explain with an aid of a well labelled graph negative externality.	(8)

State Intervention as a Consequence of Market Failure (possible essay)

1. Direct Control

- Direct control refers to government laws and regulations that force producers or consumers to act in a specific way.
- It is used when the price mechanism fails to correct harmful market outcomes, such as pollution or unsafe products.

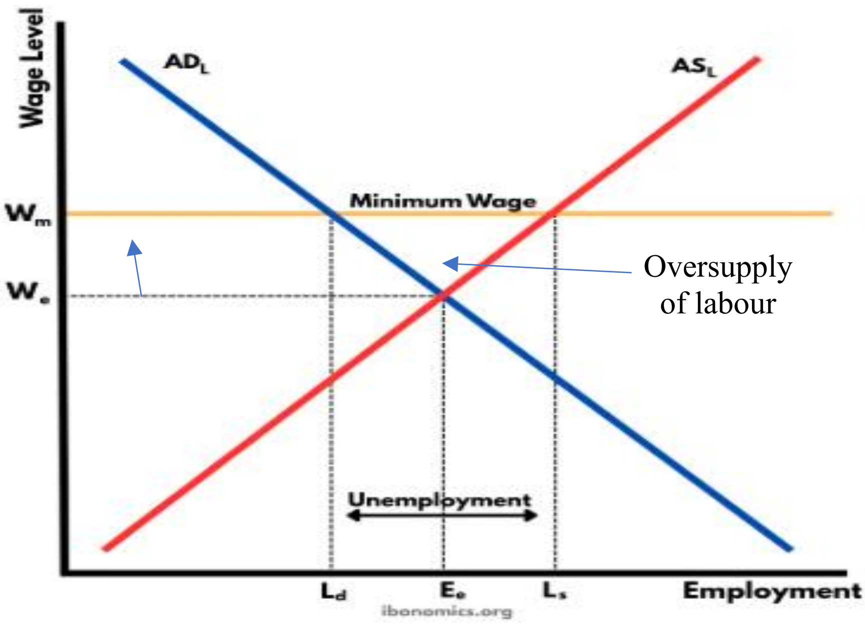
- Examples include production quotas, bans, compulsory standards, and environmental regulations.
- Direct controls can quickly reduce negative externalities by limiting harmful behaviour directly.
- However, they can be expensive to monitor and enforce.
- Direct controls may reduce efficiency and innovation if firms focus only on meeting legal requirements.

2. Imperfect Markets

- Imperfect markets exist when conditions of perfect competition are not met, such as in monopolies and oligopolies.
- Firms in imperfect markets have price-setting power and can charge prices above marginal cost.
- This leads to allocative inefficiency, as price does not equal marginal cost.
- Consumers face higher prices and reduced output compared to competitive markets.
- Deadweight welfare loss occurs due to underproduction.
- Government intervention includes competition laws, regulation, and breaking up monopolies.
- Government also impose price controls to decrease prices of goods and services.

3. Minimum Wages

- A minimum wage is a legally enforced minimum price for labour in the labour market.
- It is set above the equilibrium wage to protect low-income workers from exploitation.
- The policy aims to reduce poverty and improve living standards.
- When set too high, it can lead to unemployment as labour supply exceeds labour demand.
- Firms may reduce hiring or substitute labour with machines.
- Minimum wages may reduce income inequality but can distort labour market efficiency.



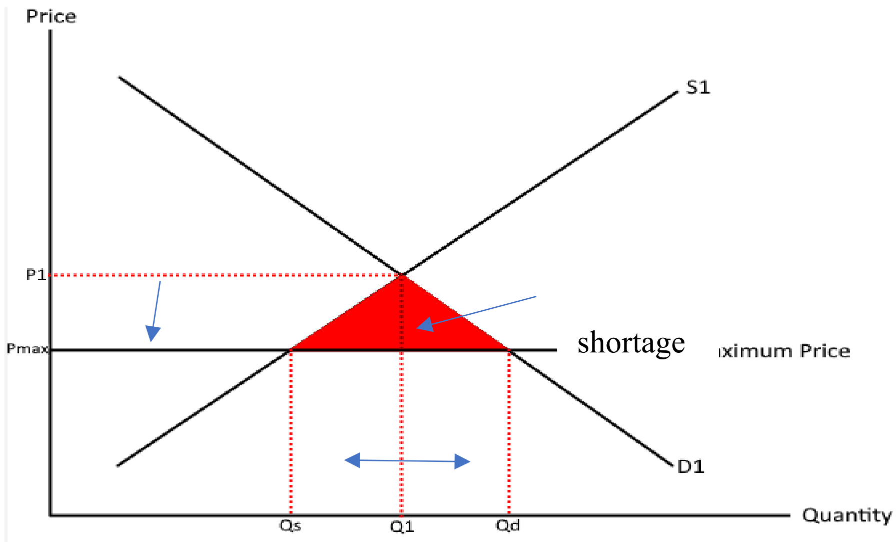
The original market wage rate is W_e at which the quantity of labour employed is E_e.

The implementation of minimum wage policy increases wages to W_m and the quantity demanded for labour decreases to L_d while the quantity supplied of labour increases to L_s

This implies that when wages increase firms(D) demand less quantities of labour while individuals(S) who are willing and able to work increases.

4. Maximum Prices (price ceiling)

- A maximum price is a legal ceiling set below the market equilibrium price.
- It is introduced to make essential goods and services affordable to **consumers**.
- Examples include rent controls and price caps on basic food or fuel.
- A maximum price causes excess demand, leading to shortages in the market.
- Producers may reduce supply due to lower profitability.
- **Black markets** and reduced product quality may develop as unintended consequences.



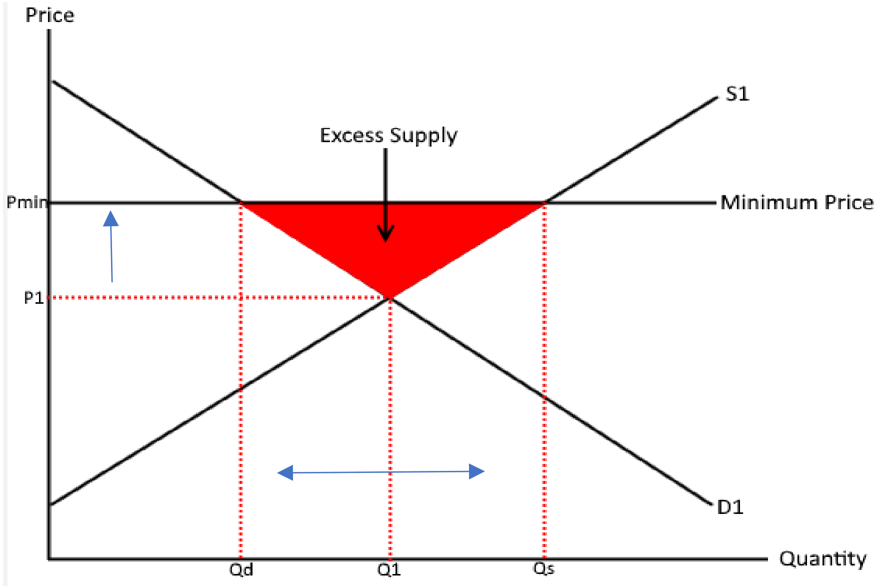
At the original market of P_1 the quantity demanded and supplied is Q_1.

The maximum price policy reduces the price to P_{max}, and the quantity supplied reduces to Q_s while the quantity demanded increases to Q_d.

This implies that maximum prices lead to a decrease supply and an increase in **demand, causing a shortage or undersupply of goods and services.**

5. Minimum Prices

- A minimum price is a legal price floor set above the equilibrium price.
- It is commonly used to **protect producers**, especially farmers, from low incomes.
- At the minimum price, quantity supplied exceeds quantity demanded, creating a surplus.
- Governments often purchase the surplus to maintain the minimum price.
- This policy ensures income stability for producers.
- However, it increases government spending and leads to allocative inefficiency.



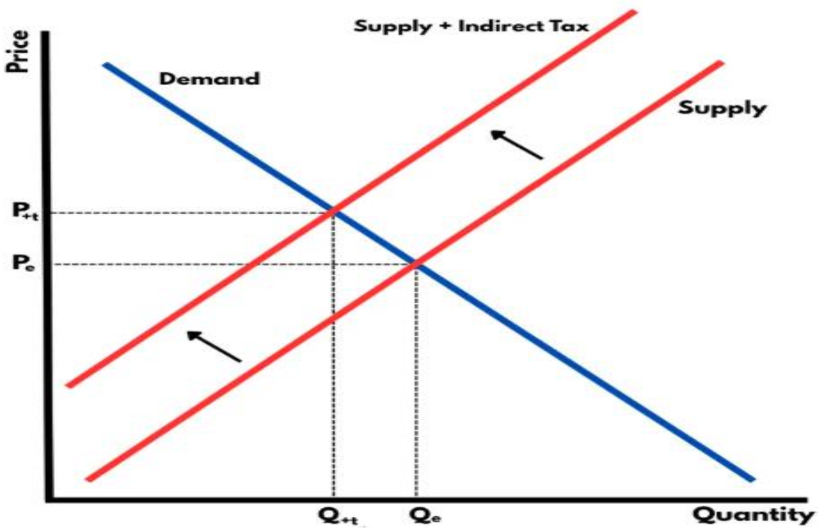
At the original market of P_1 the quantity demanded and supplied is Q_1.

The minimum price policy increases the price to P_{min}, and the quantity supplied increases to Q_s while the quantity demanded decreases to Q_d.

This implies that minimum prices lead to an increase in supply and a decrease in demand, causing a surplus of the supply of goods and services.

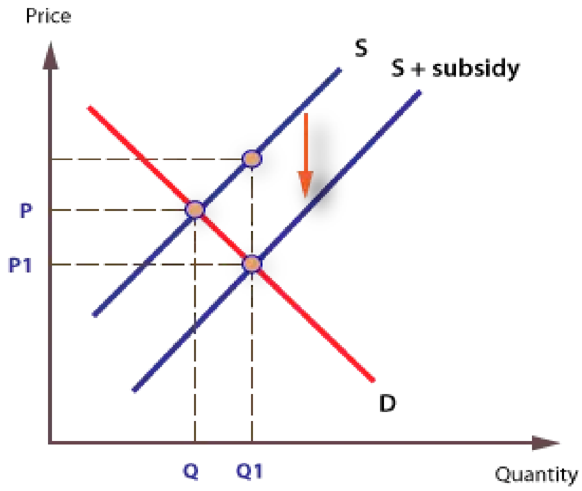
6. Taxes and subsidies

- Taxes are imposed to discourage consumption or production of goods that create negative externalities.
- Indirect taxes increase costs of production and raise the final market price.
- Taxes reduce output and internalise external costs, such as in pollution control



7. Subsidies

- Subsidies are used to encourage the consumption of goods with positive externalities.
- Examples include education, healthcare, public transport, and vaccinations.
- Positive externalities cause under-consumption in free markets.
- A subsidy shifts the marginal private benefit curve closer to the marginal social benefit curve.
- Output increases from the private equilibrium to the socially optimal level.
- Subsidies increase social welfare but place a burden on government budgets.



8. Redistribution of wealth

- South Africa is one of the most unequal societies in the world, where the gap between the rich and the poor people is very wide.
- The government provides social welfare grants and other social assistance to improve access to basic needs and reduce poverty.
- The government uses progressive taxation. The revenue collected from high income earners is redistributed through public services to support the economically disadvantaged groups and reduce income inequality.
- The government provides social services like education, healthcare and sanitation to improve living standards of poorer communities.
- The government funds job creation programs such as EPWP to create temporary jobs and provide income for unemployed individuals.

- Such employment programs employ even individuals with lower skill levels, which improves overall economic activity.
- Programs like SETA improves the skills levels and experience for many individuals to obtain higher positions and basic employment to survive.
- BEE policies: The government promotes ownership, management and employment opportunities for previously disadvantaged groups which increases their economic participation.

COST–BENEFIT ANALYSIS (CBA)

Concept of cost–benefit analysis

- Cost–benefit analysis is a decision-making tool used by governments to evaluate whether a project should be undertaken.
- It involves comparing the total expected social benefits with the total expected social costs of a project.
- Both costs and benefits are measured in monetary terms as far as possible.
- The aim of cost–benefit analysis is to determine whether a project will improve overall social welfare.
- A project is considered worthwhile if social benefits exceed social costs.
- Cost–benefit analysis is mainly used for public sector projects where market prices do not reflect true social values.

  Cost-Benefit ratio = compares the present value of social benefits to the present value of social cost.

Example 1

Social benefit	:	Social cost
R150 000	:	R150 000
1	:	1

∴ social benefits are equal to social cost (CBR=1)

Example 2

Social benefit	:	Social cost
R185 000	:	R150 000
1.2	:	1

∴ social benefits are more than social cost (CBR>1)

Example 3

Social benefit	:	Social cost
R185 000	:	R210 000
0.9	:	1

∴ social benefits are less than social cost (CBR<1)

Reasons for using CBA

- Governments use cost–benefit analysis to allocate scarce public resources efficiently.
- It helps the government decide between alternative public projects.
- Cost–benefit analysis includes external costs and benefits that markets often ignore.
- It helps to reduce wasteful government spending on inefficient projects.
- The method provides a systematic and transparent basis for decision-making.
- It assists in ensuring that public projects maximise net social benefit.

Apply cost–benefit analysis in practice

- The government first identifies all possible costs and benefits associated with the project.
- Both direct and indirect costs and benefits are included, such as environmental and social effects.
- Monetary values are assigned to costs and benefits, even if estimates are required.
- Future costs and benefits are discounted to reflect their present value.
- Total social benefits are compared with total social costs.
- The project is accepted if the net social benefit is positive and rejected if it is negative.

ACTIVITY 6

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

COSTS AND BENEFITS OF BUILDING A BRIDGE

PARTICULARS		AMOUNT
	Benefits	
A	Reduced transport costs for individuals	R210 000
B	Opportunities for new businesses	R30 000
C	Subsidies from government	R40 000
	Total benefits (A + B + C)	**R280 000**
	Costs	
D	Labour costs	R150 000
E	Cost of building materials and equipment	R15 000
F	Destruction of plants and animals	R50 000
	Total costs (D + E + F)	**R200 000**

[Adapted from http:// www.wallstreetmojo]

6.1.1 Identify ONE example of an external benefit in the table above. (1)

6.1.2 Name the sector in which a cost benefit analysis is applied. (1)

6.1.3 Briefly describe the term *social costs.* (2)

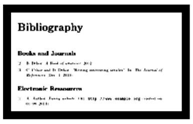
6.1.4 How can a lack of information among entrepreneurs lead to market failure? (2)

6.1.5 Determine whether the project is viable or not by calculating the cost benefit ratio. Show ALL calculations. (4)

ACTIVITY 7

7.1 Discuss in detail state intervention as a consequence of market failure with an aid of relevant graphs (26)

Analyse the effects of market failure on the economic growth (10)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