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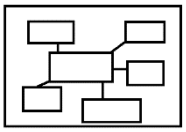
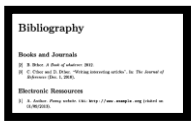
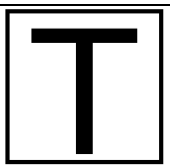
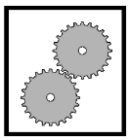
ECONOMICS

GRADE 12

SPRING CLASSES 2026

TEACHER AND LEARNER CONTENT MANUAL

ICON DESCRIPTION

 MIND MAP	 EXAMINATION GUIDELINE	 CONTENTS	 ACTIVITIES
 BIBLIOGRAPHY	 TERMINOLOGY	 WORKED EXAMPLES	 STEPS

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INFLATION

EXAMINATION GUIDELINES

MAIN TOPIC: CONTEMPORARY ECONOMIC ISSUES	
TOPIC 12: INFLATION	**CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES**
Analyse and investigate inflation and the policies used to combat it	
12.1 Inflation	• Briefly describe the **concept** • Briefly examine the following ways to **measure** inflation: - **Indexes** (CPI/PPI) - **Weighting** (Basket of goods and services) - **Inflation rate** (Calculations)
12.2 Types and characteristics of inflation	• Explain the different **types** of inflation - **Consumer inflation** o Headline inflation o Core inflation o Administered prices inflation - **Producer inflation** o CPI o PPI - **All inclusive inflation** - **Hyper inflation** - **Stagflation**
12.3 Causes of inflation	• Briefly distinguish between the different **characteristics** of demand-pull and cost-push inflation • Briefly compare the **Monetarists'** and **Keynesian explanations** of inflation • Discuss the causes of demand-pull inflation - Increase in household consumption o Decline in savings o Tax reduction o Access to credit - Investors' expenditure - Government expenditure - Export services • Discuss the **causes** of cost-push inflation - Wages - Key inputs - Exchange rate depreciation - Profit margins - Productivity - Natural disasters
12.4 Consequences of inflation	• ***Discuss in detail the consequences of inflation*** under the following headings: - **Debtors/Creditors** - **Wage and salary earners** - **Investors and savers** - **Tax payers** - **Industrial stability** - **Unemployment/poverty** - **Balance of payments problems** - **Psychological influence**
12.5 The inflation problem in South Africa	• Discuss expectations and inflation • Broadly outline the **inflation problem** in South Africa
12.6 Measures to combat inflation	• ***Discuss in detail the measures to combat demand-pull and/or cost-push inflation*** - **Monetary policy** - **Fiscal policy** - **Other measures**
12.7 Inflation targets	• Evaluate the success of **inflation targeting**

KEY CONCEPTS

Inflation	Is the general sustained increase in the prices of goods and services overtime.
Inflation rate	The percentage rate at which the general level of prices over a period.
Consumer price index	The most common measurement of inflation based on monthly changes in prices paid by typical consumers for a representative basket of goods and services.
Core inflation	system of measurement of inflation that removes highly volatile(unpredictable) items such as food and energy from overall inflation calculations.
CPIX	A variation of consumer price index that excludes mortgage interest rates from consumer basket.
Headline inflation	An unadjusted inflation rate which encompasses all items in the consumer basket, including highly volatile sectors.
Hyperinflation	An extreme and rapid form of inflation where prices skyrocket exceeding 50% per month, causing the national currency to rapidly lose its value.
Stagflation	A condition of low or stagnant economic growth rate and high rates of inflation which is caused by economies that cannot create new job opportunities.
Deflation	A sustained general decrease in the price levels of goods and services in the economy.
Producer price inflation	A measure of average changes in prices that domestic manufacturers and producers receive for their output and assess the impact of the changes in the relative weighting of production inputs.
Demand-pull inflation	Occurs when the aggregate demand for goods and services exceeds the aggregate supply of goods and services.
Cost push inflation	Occurs when there is an increase in the general price levels caused by an increase in the cost of production.

Inflation targeting	Part of the monetary policy that is managed by the Reserve Bank to keep inflation within the ranges set by the minister of finance (between 3%-6%)
Monetary Policy Committee (MPC)	The official body within the central bank responsible for setting the benchmark interest rate to achieve price stability and manage inflation
Administered prices	Prices set or controlled by the government.

INFLATION

Inflation is a sustained and significant increase in the general price level of goods and services over a period of time. There is an inverse relationship between inflation and the purchasing power of money. If inflation rate increases, the purchasing power decreases and vice versa. Peoples real disposable income tends to decrease due to inflation.

- **Ways of measuring inflation**

Inflation can be measured in the following ways:

- **Indexes (CPI/PPI).**
  - Price indexes convert absolute currency prices into relative numbers to show how much a set of goods has become more expensive compared to a chosen base year.
  - A price index is compiled by using the prices of a representative range of goods and services which are recorded on a regular basis.
  - Consumer Price Index (CPI) tracks the cost of living from buyer's perspective e.g. food, transport and medical care.
- **Weighting (basket of goods and services).**
  - A price index does not treat all items equally because consumers spend more on certain necessities than luxury items.
  - The difference in the importance of items in an index is solved through a weighted index which reflects the relative importance of each item.
  - Basket – A representative sample of goods and service typically purchased by households or businesses. It is determined through national consumer expenditure surveys.

- Weights – Each item in the basket is assigned a statistical weight based on its share of total expenditure. E.g. if households spend 20% of their income on housing and 2% on education, then housing receives a weight ten times greater than education.

➢ **Inflation rate (calculations).**

- The percentage rate at which the general level of prices over a period. It is determined by using changes in the CPI/PPI index.
- The figures for each month are compared to the corresponding month in the previous year.
- Inflation rate is calculated using the following formula:
- Inflation Rate $= (\frac{index\ current - previous}{index\ current}) \text{x}\ 100$
- Inflation value is calculated using the following formula:
- Inflation value = $(\frac{cost\ of\ basket\ in\ current\ year}{cost\ of\ basket\ in\ base\ year}) \text{x}\ 100$



ACTIVITY 1

1.1 Provide the formula for calculating inflation rate. (2)

1.2 Name any two methods of measuring inflation. (2)

1.3 Describe the concept *inflation.* (2)

1.4 Briefly explain the relationship between inflation and purchasing power of money. (4)

[10 MARKS]

TYPES AND CHARACTERISTICS OF INFLATION

➢ **Consumer inflation:**

- Consumer inflation tracks the increase in the cost of living for an average household.
- It measures changes in prices of retail goods and services directly bought by consumers and is calculated using consumer price index (CPI) basket.

- **Headline inflation**.
  - Headline inflation is the raw and unadjusted consumer inflation measured by CPI.
  - It consists of the entire CPI basket of typical goods and services bought by ordinary South African households.

- Headline inflation is used for inflation targeting, meaning when it is above 6% SARB may increase interest rates.

- **Core inflation.**
  - Consumer inflation that excludes volatile items like food and energy as well as government-intervened items. e.g. fresh and frozen meat and fish, vegetables, interest rates on mortgage bonds, VAT and assessment rates.
  - Central banks focus on core inflation to map out long-term, underlying monetary policy trends without being misled by temporary price spikes.

- **Administered prices inflation**
  - Price increases driven by goods and services whose costs are legally dictated or heavily regulated by the government rather than free-market supply and demand. e.g. electricity tariffs, water charges, fuel costs.
  - Price changes must remain within the inflation target prescribed by the Minister of Finance (Enoch Godongwana).

➢ **Producer inflation**
  - Producer inflation is used to measure the prices of domestically produced goods and shows domestic output.
  - It tracks price changes at the factory gate before goods reach consumers and serves as an early indicator for consumer inflation.
  - When the rand depreciates it will first be reflected in the PPI.

Differentiate between Consumer Price Index (CPI) and Producer Price Index (PPI)

- **Consumer Price Index (CPI)** Basket consists of consumer goods and services while **Producer Price Index (PPI)** Basket consists of goods **only.**
- **CPI** pertains to cost of **living** while **PPI** pertains to cost of **production**.
- **CPI** capital and intermediate goods are **excluded** while **PPI** capital and intermediate goods are **included.**
- **CPI** prices **include** VAT while **PPI** price **excludes** VAT.
- **CPI** interest rates are considered while **PPI** interest rates are **excluded**.
- **CPI** Prices of imported goods are **not** shown while **PPI** Prices of imported goods are shown explicitly.

➢ **All-inclusive inflation**

- Economists use all-inclusive inflation to check what happened to prices of all final goods and services produced in a particular year.
- All-inclusive inflation is a measure of inflation that takes into account the prices of all goods and services produced in an economy.
- It measures the inflation rate for economy as a whole.
- Both GDP figures at current and constant prices are used as published in the national accounts.
- GDP at constant prices measure economic growth and measures inflation.
- Implicit GDP deflator is the ratio of GDP at current prices to GDP at constant prices.
- To determine inflation the following formula is used:

$$\frac{GDP\ deflator\ for\ next\ year}{GDP\ deflator\ for\ previous\ year} \text{ x } 100$$

➢ **Hyper inflation**

- A rapid and extreme economic state where prices shoot upward by 50% or more per month.
- Currency values collapse entirely during hyperinflation which is triggered by governments over-printing money during political crises.
- Countries currently facing hyperinflation include Venezuela, Iran, Sudan, Argentina and Turkey.

➢ **Stagflation**

- An economic state characterised by high inflation, low/stagnant economic growth and high unemployment happening simultaneously.
- Unlike other types of inflations, it breaks conventional economic patterns because inflation usually spikes when an economy is growing fast not when it is stalling.
- Countries currently facing stagflation include UK, Nigeria, Pakistan and Germany

ACTIVITY 2

2.1 Study the picture below and answer the questions that follows.



2.1.1 Identify the economic concept illustrated by the above image. (1)

2.2.2 Name any two examples of goods and services whose prices are administered. (2)

2.2.3 Describe the concept *Headline inflation.* (2)

2.2.4 Briefly discuss the reason why stagflation is different from other types of inflation. (4)

2.2.5 Compare and contrast consumer price index (CPI) and producer price index (PPI) (8)

17 Marks

CAUSES OF INFLATION

- **Characteristics of demand-pull and cost-push inflation.**

- **Demand-pull inflation** occurs when aggregate demand for goods rises faster than aggregate supply causing an increase in price levels while **cost-push inflation** occurs when aggregate supply of goods decreases due to manufacturing and production costs spike.
- **Demand-pull inflation** is driven by buyers, aggressive consumer spending, expansionary monetary policy (low interest rates), increased government spending while **cost-push inflation** is driven by sellers, increase in cost of raw materials/inputs, sudden increase in wages(unions) or supply chain shocks (wars or droughts).
- in **demand-pull inflation,** foreign contribution leads to an increase in demand for exports while in **cost-push inflation** producers increase prices more than the rise in production costs.
- In **demand-pull inflation,** a decline in savings leads to aggressive spending and tax reduction leads to increased purchasing power while in **cost-push inflation** the state imposes higher tax (VAT) rates and expensive imported products (intermediate goods) cause an increase in the prices of locally finished goods.
- For **demand-pull inflation,** access to credit means more available funds for buyers to spend while in **cost-push inflation**, lower productivity but same remuneration increases the cost of production and limits supply.

- **The Monetarist's and Keynesian explanation of inflation.**

The Monetarists and Keynesian explanation of inflation split, lies in whether inflation is caused by excessive money printing or by demand imbalances and cost shocks.

Monetarist view:

- Inflation is strictly a monetary phenomenon that occurs when the state increases money supply faster than the actual growth rate of the economy
- E.g. printing money or keeping interest too low, forces prices up
- They believe flooding the market with cash causes people to spend more than the economy can handle.

Keynesian view:

- Inflation is driven by non-monetary shifts that occurs when aggregate demand exceeds the economy's productive capacity or when supply-side costs suddenly spike.
- e.g. aggressive government spending, booming credit markets, or raw material crises trigger inflation.
- They believe an increase in the money supply is often a reaction to inflation, as the central bank prints more money simply to accommodate the higher costs already happening in the market.

- **Causes of Demand-pull inflation**

➢ **Increase in household consumption**

- An increase in household consumption acts as a direct, powerful driver of demand-pull inflation. e.g. when consumer confidence is high due to job security or rising wages, households aggressively increase their spending on retail goods, services and luxury items.
- Factories and supply lines cannot instantly create more products to match the sudden rise, instead they raise retail prices to sustain the existing inventory, pulling the general price level upward.

The disposable income of households can increase at a faster rate than aggregate supply for the following reasons:

- **Decline in savings**
  - When households collectively choose or are forced to save less money, it immediately translates into liquid purchasing power.
  - Decline in savings often happens when interest rates are low. The money that could have been saved is withdrawn and injected directly into the active economy.
  - The release of this money into stores and digital marketplaces increases the velocity of money, heavily overloading the demand side of the marketplace.
  - Savings also lead to lack of liquidity for banks to finance essential capital investments.

- **Tax deductions**
  - When the government implements expansionary fiscal policy such as decreasing taxes it triggers the demand boost.
  - Lower tax rates increase disposable income, with more disposable cash available, households immediately increase their day-to-day spending.
  - This extra purchasing power is caused by government policy rather than an actual increase in the physical supply of factory goods, too much cash now competes for the exact same number of products, forcing prices higher.
- **Access to credit**
  - Easy access to banking credit causes demand-pull inflation by allowing consumers to spend money they have not yet earned.
  - When central banks lower benchmark interest rates or commercial banks loosen their lending criteria, borrowing (credit cards, personal loans and asset financing) becomes cheap and simple.
  - The broad access to credit bypasses the natural constraint of current income, flooding the retail markets with borrowed purchasing power.
  - Households use loans and credits to make large purchases like vehicles, electronics and property which causes a massive spike in aggregate demand that far exceeds the country's physical production capacity.

➢ **Investors expenditure**
  - Investment injection leads to higher profit expectations of businesses this means that the more they invest more higher the demand for goods and services.
  - When business confidence is high or interest rates are low companies invest heavily in capital goods (machinery, factories, technology and commercial construction projects).
  - This massive spike in capital investment creates an immediate surge in demand for limited resources such as raw materials and specialized labour. This creates intense competition which pushes prices higher.

➢ **Government expenditure**
  - An increase in government spending leads to an increase in prices. More money comes into circulation due to an increase in spending on infrastructure, consumption spending and social spending.
  - This expansionary fiscal policy injects massive amounts of liquidity into the economy which results in public spending exceeding national productive capacity.

- **Export services**
  - The growth of economies of trading partner countries or depreciation of domestic currency might create an increased demand for locally produced goods without an increase in production.
  - Foreign companies and consumers flood domestic market and because the local firms prioritise selling to high-paying foreign buyers, fewer goods are left for local citizens at a high price.

- **Causes of cost-push inflation**

- **Wages**
  - An increase in wages contributes to about 50% of gross value added (GVA) at basic prices and is one of the major causes of cost-push inflation.
  - Aggressive trade union negotiations push the price of labour up above the increase in productivity.
  - To maintain profitability, businesses immediately pass these higher payroll costs onto consumers by rising the retail price of their final products.
- **Key inputs**
  - When the prices of key input goods that are imported increase, domestic cost of production increases especially in the manufacturing sector.
  - For producers to increase profits, they rise prices more than the rise in production costs. The state also imposes a higher VAT rate.
  - An increase in production resources, makes it expensive to produce and transport every single product, creating broad economy-wide price hikes.
- **Exchange rate depreciation**
  - Exchange rate depreciation happens when a nation's domestic currency loses value against major international trading currencies like US Dollars or Euro.
  - The depreciation in the rand triggers imported cost-push inflation and leads to more expensive imports.
  - Expensive imported products (intermediate goods) cause an increase in the prices of locally finished goods.

Profit margins

- Increased profit margins happen when dominant firms or monopolies intentionally widen their profit margins by raising prices simply because they have market power.
- When businesses increase their profit margins and cost of production, prices that consumers must pay also increase. This is also called the markup inflation.

Productivity

- Less productive factors of production such as inefficient workers, outdated machines or infrastructure failures, will lead to more costs to make a single item.
- Total output drops while fixed costs remain unchanged, this raises the unit cost of production leaving businesses with no choice but to lift retail prices to stay afloat.

Natural disasters

- When natural disasters destroy agricultural crops or damage factories or transport infrastructures, supply decreases drastically. Prices will increase due to scarcity.

ACTIVITY 3

3.1 Study the picture below and answer the questions that follows.



3.1 Identify the cause of cost-push inflation illustrated by the above image (1)

3.2 Name any other two examples of cost-push inflation. (2)

3.3 Describe the concept *Demand-pull inflation.* (2)

3.4 Explain the effect of tax reduction on inflation. (4)

3.5 Discuss the Keynesian explanations of inflation (8)

17 Marks

CONSEQUENCES OF INFLATION (possible essay)

Debtors/Creditors

- Debtors are favoured at the cost of creditors, as debtors benefit because they receive money with a high purchasing power and repay their debt with money with low purchasing power.
- Creditors are penalized because the real value of the money returned to them has eroded. Even though they receive the exact numerical amount agreed upon, that cash can no longer buy the same volume of goods, resulting in a loss of real purchasing power.

Wage and salary earners

- The inflation on workers depends entirely on how quickly their income adjusts relative to rising prices.
- People with a fixed income suffer heavily if their nominal wage remains unchanged while shelf prices spike.
- This is because their real wage drops causing a direct decline in their standard of living.
- People with flexible income in highly skilled fields can negotiate inflation-adjusted wage increases to preserve their purchasing power.

Investors and savers

- Inflation erodes financial assets that yield a fixed return, while favouring tangible assets.
- This means that people who invest in negotiable instruments and securities often benefit from inflation.
- Investors who hold physical assets like real estate, gold or equity shares tend to beat inflation.
- The value of these assets appreciates alongside general price increases which preserve capital wealth.
- People holding cash in traditional savings accounts or fixed bonds (Savers) lose money in real terms. e.g. if a bank savings account pays a 4% interest rate while inflation runs at 7%, the saver is suffering a negative real interest of -3% per year.
- Assets with a fixed nominal value have a fixed return and lower purchasing power as prices increase. Real value of savings decreases.

Taxpayers

- In South Africa income is taxed on a progressive system. We experience a bracket creep, resulting from inflation and progressive income tax and the government benefits.
- As inflation drives up the cost of living, employers grant nominal wage increases so that workers can survive, however, these higher numerical wages push workers into higher tax brackets.
- Tax brackets are rarely adjusted for inflation instantly as a result, taxpayers pay a higher percentage of their income to the government even though their actual real purchasing power has not improved at all.

Industrial stability

- Disruption of industrial peace caused by inflation results in friction between workers and corporate management. Trade unions become aggressive and stage regular strikes and work stoppages to demand higher wages to keep up with inflation.
- These continuous labour disputes disrupt production and damage business confidence.
- This can lead to hostile economic environment that discourages long-term business investments.

Unemployment and poverty

- Inflation disproportionately harms the most vulnerable members of the society.
- Lower-income earners spend nearly all their money on necessities like food, rent and fuel.
- Because they have no money left after spending on necessities, price increases drag them directly below the poverty line.
- In the short-run, demand-pull inflation can lower unemployment as business expand. However, pro-longed cost-push inflation leads to stagflation where businesses eventually lay off workers to survive increasing raw material costs driving unemployment up.

Balance of Payments problems

- Inflation weakens a nation's competitive position in the global trading marketplace.
- If a country's domestic inflation rate is much higher than its global trading partners, its exported goods become expensive.

- Foreign buyers seek for alternatives causing export revenue to decrease.
- When local goods become expensive, domestic citizens stop buying locally and switch to cheaper imported alternatives.
- This effects of decreasing exports and increasing imports create a deficit on current accounts of Balance of Payments.

Psychological influence

- Inflation damages the psychological foundation of economic planning and consumer trust.
- When prices change constantly, money loses its reliability as a store of value and unit of account.
- Consumers experience anxiety, feeling that their financial future is highly unpredictable.
- Instead of investing in productive, job-creating businesses, people shift to buy property, foreign currencies or gold purely out of fear, which starves the productive economy of investment capital.



ACTIVITY 5

- Discuss in detail the consequences of inflation. (26)
- Evaluate the inflation problem in South Africa. (10)

40 Marks

THE INFLATION PROBLEM IN SOUTH AFRICA

Expectancy and inflation

- Expectancy is not just a passive prediction, it is an active driver that makes inflation a self-fulfilling prophecy.
- The higher the expected rate of inflation, the higher the level of wage and price increases will be, which leads to actual rate of inflation increasing.
- If society expects high inflation in the future, individuals alter their financial choices immediately. This feared inflation ends up manifesting due to the collectively shift in behaviour.
- If households expect the prices of goods to increase, they front-load their spending, buying those items immediately.

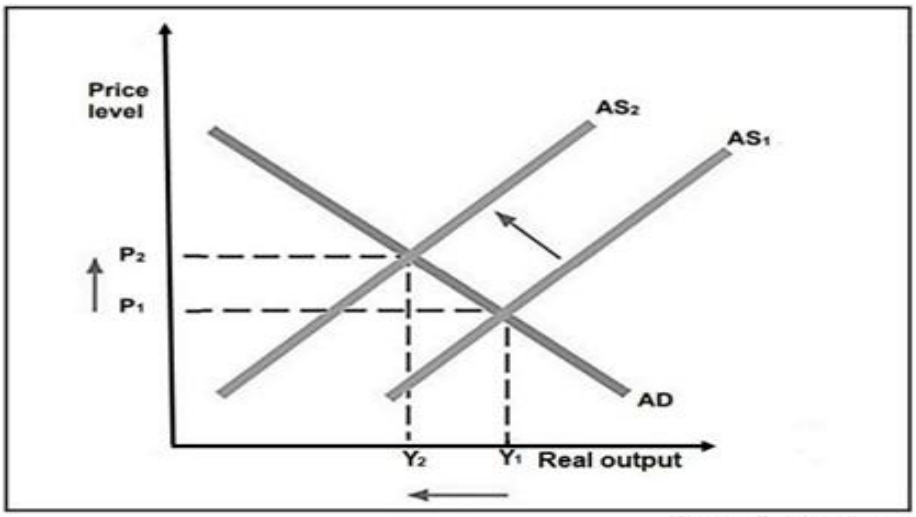
- The sudden spike in current spending triggers **demand-pull inflation.**
- If workers expect the cost of living to rise by 10% next year, they demand a 10% nominal wage increase today to protect their purchasing power.
- To fund these higher payroll costs, businesses must raise their retail shelf prices, triggering the **cost-push inflation**.
- To break the psychological cycle of high expectations the central bank uses contractionary and expansionary monetary policy to build public credibility that they are capable of curbing inflation.

The inflation problem in South Africa.

- The SARB set an inflation target of 3%-6% as part of its inflation-targeting mandate in accordance with the monetary policy in the year 2000.
- The headline inflation has accelerated to 5,0% which marks the highest consumer inflation print seen in domestic economy in two years.
- Core inflation is tracking lower at 4.1% indicating that current inflationary pressures are supply-side driven rather than domestic demand overheating.
- The current inflation problem in South Africa is driven by rigid cost-push factors such as:
  - International fuel shock causing transport costs to surge by 12.7% year-by-year.
  - Administered utility price hikes causing housing and utility (electricity) costs to expand by 5.5%.
  - Agricultural vulnerabilities caused by surge in diesel prices (tractors) and imported fertilizers result in high agricultural input costs.
- The inflation rate in South Africa is currently higher than the inflation rate of its trading partners.
- This makes South African goods more expensive than other countries and less competitive. These high prices have negative effect on exports.
- The weaker the value of the Rand against its trading partners currencies the higher the cost of imports.
- An increase in some key prices that are set by the government like electricity prices leads to increase in inflation rates.
- South African citizens spend their money excessively as they lack the saving culture

ACTIVITY 4

4.1 Study the graph below and answer the questions that follows.



[Source: Forbesindia.com]

4.1 Identify the cause of inflation illustrated by the above graph. (1)

4.2 Name the type of inflation that excludes highly volatile prices. (1)

4.3 Describe the concept A*ll-inclusive inflation.* (2)

4.4 Briefly explain the effect of inflation on industrial unrest. (4)

4.5 Discuss the effects of inflationary expectations on producers. (8)

16 Marks

MEASURES TO COMBAT INFLATION (possible essay).

Demand-pull inflation

Demand-pull inflation is caused by too much money chasing too few goods therefore the implementation of contractionary policies to actively cool down consumer and business spending, is necessary.

Monetary policy

- A fine balance must be maintained between goods and services and the monetary sector of the economy. Monetary policy committee and monetary authorities adjust the quantity of money to the needs of the economy using the following tools:
- **Repo rates/ interest rates**: The SARB can raise repo rates, forcing commercial banks to raise their prime lending rates and make loans more expensive. This encourages savings and cut back on retail spending.
- **Increasing cash reserve requirements**: SARB can order commercial banks to hold a higher percentage of their cash deposits in reserve vaults rather than lending it out. This restricts credit availability in the marketplace, slowing down the money supply growth.
- **Open market transactions**: The central bank sells government bonds and securities directly to commercial banks and the public. Buyers pay with liquid cash, effectively draining excess money out of the banking system.
- **Moral suasion**: The SARB can apply moral pressure on financial institutions to be more careful when granting credit. This limits availability of loans for consumers and restricts further spending.

Fiscal policy

- **Taxation:** The government can increase direct and indirect taxation to reduce consumer's disposable income and lower corporate margins. This decreases the demand for goods and overall household consumption.
- **Government spending**: The government can also cut down their spending to reduce department operational budgets. This decreases aggregate demand further.
- Surcharges (levies and custom duties) on imported goods increase prices of imported good thus discouraging domestic citizens from importing goods.

Cost-push inflation

Supply-side and structural policies that are used to combat cost push inflation include:

- Improving productivity and infrastructures: when the government invest in upgrading national infrastructure it lowers business logistics costs. This involves fixing freight rail links, improvements in technology and stabilising power grids which eliminates operational costs of running backup diesel generators.
- Improving competition: competition and deregulation (removal of complex rules and bureaucracy) can stabilise profit margins and increase supply of goods.
- Lower import tariffs benefit businesses by reducing the cost of intermediate goods (imported) and consequently, the final price of goods that consumers must pay.

Other measures

Additional measures that can be taken to combat inflation include:

- **Increase productivity**: This is a long-term measure generated through improved education and training which allows more people to be employed and ensures they are more productive.
- **Price control**: By fixing the price of certain essential goods, the government assures they remain affordable.
- **Wage policy:** The government takes a decision to break the inflationary spiral of increased wages and prices by keeping the increase in wages below or at the level of inflation.
- Stricter conditions for **consumer credit**: The government makes it harder for consumers to get credit in order to restrict their spending.
- **Encourage personal savings**: The government implements measures to encourage savings, e.g. by cutting taxes on savings. The imbalance between demand and supply is corrected by increased savings, as people save more and spend less.
- **Floating exchange rate**: Prices are automatically adjusted to international conditions. Import controls are relaxed.
- **Indexation**: A policy of linking prices of items such as wages, pensions and mortgage bond interest rates to price indices to eliminate the effects of inflation

ACTIVITY 6

6.1 Study the extract below and answer the questions that follows.

SOUTH AFRICAN RESERVE BANK (SARB) DROPS REPO RATE BY 25 BASIS-POINTS (BP)

South Africans are starting the year positively with a 25 basis-point cut to the repo rate, reducing it from 7,75% to 7,50%, as announced by the SARB Governor on 30 January 2025 and the Monetary Policy Committee (MPC). This reduction is good news for those repaying home and vehicle loans, as it will slightly lower monthly instalments, easing the financial burden on households. This marks the third consecutive repo rate cut since the Covid-19 pandemic, indicating a shift towards a more accommodating monetary policy to support economic recovery.

[Adapted from https://www.thesouthafrican.com]

6.1 Identify the new repo rate set by South African Reserve Bank from the above extract. (1)

6.2 Name the current inflation target range set by the SARB. (1)

6.3 Describe the concept *Open market transaction.* (2)

6.4 How will government spending projects be affected if there's an increase in demand-pull inflation. (4)

6.5 Why might a lower repo rate potentially stimulate economic recovery in South Africa. (8)

16 Marks

ACTIVITY 7

- Discuss in detail the measures to combat demand-pull and cost-push inflation. (26)
- Evaluate the inflation targeting in South Africa. (10)

40

INFLATION TARGETS

Evaluation of inflation targeting

Inflation targeting has been successful by:

- Anchoring inflationary expectations - The central bank provides businesses and trade unions with predictable measure of inflation. Firms can set price increases and unions negotiate wage hikes around the target range, which stops runaway wage-price spirals from forming.
- Monitoring and keeping inflation rates within target (3%-6%)
- Protecting lower-income households by implementing strict policy framework dedicated to keeping prices low to shield the living standards of the poor.
- Providing transparency and predictability: a stable, predictable price environment reduces financial anxiety and allows businesses to formulate realistic long term capital investment plans.
- Enhancing central bank accountability: the central bank's success or failure is clearly visible to the public based on whether the actual CPI numbers match the published target.

Disadvantages/limitations:

- Monetary policy tools are designed to manage demand if inflation is caused by supply-side shocks (like global oil spikes, geopolitical conflicts or local electricity tariff hikes) then raising interest rates cannot fix the root cause but punish consumers for price hikes they did not cause
- Strict inflation targeting can result in economic collateral damage. e.g. if a central bank keeps interest rates high to supress inflation during an economic slowdown, it increases borrowing costs, contracts GDP growth and worsens unemployment.
- Focusing strictly on a rigid numerical range can trap policymakers. It limits their ability to lower interest rates to rescue a crashing banking sector or inject liquidity into a stagnant economy during an unexpected recession.
- Changes in interest rates do not alter consumer habits overnight. It typically takes 12 to 18 months for a repo rate hike to fully filter through the commercial banking system and influence consumer inflation, making real-time management highly difficult.

ENVIRONMENTAL SUSTAINABILITY



EXAMINATION GUIDELINES

TOPIC 14: ENVIRONMENTAL SUSTAINABILITY	CONTENT DETAILS FOR TEACHING, LEARNING AND ASSESSMENT PURPOSES
Analyse environmental sustainability and investigate recent international agreements in this regard, for example the Rio de Janeiro and Johannesburg summits	
14.1 The state of the environment	• **Describe** the relevant **concepts** • Discuss the **state of the environment** under the following headings: - Pollution (definition and types) - Erosion - Deforestation - Climate change - Conservation - Preservation
14.2 Measures to ensure sustainability	• Brief discussion of how the **markets** can be used to ensure sustainability under the following headings: - The market does not take care of social costs and benefits - The market fails because of specific reasons - The mechanism of the market and social costs and benefits • ***Discuss in detail how the government can ensure sustainable development*** under the following headings: - **Grant property rights** - **Pay for environmental use** - **Levy environmental tax** - **Pay environmental subsidies** - **Issue marketable permits** - **Command and control** - **Voluntary agreements** - **Education**
14.3 International measures	• ***Discuss in detail the following problems and the international measures taken to ensure sustainable development*** under the following headings: - **Biodiversity** - **Chemical waste** - **Hazardous waste** - **Climate change policy (Nations Framework Convention on Climate Change [UNFCC], Kyoto Protocol, Paris agreement on climate change)** - **Indigenous knowledge** • Explain the major **international protocols and agreements** on sustainable development and evaluate their effectiveness to ensure sustainability - **Rio de Janeiro summit (UNCED)/Johannesburg summit (WSSD) (Rio +10) / Rio +20 summit** - **Millennium Development Goals/Sustainable Development Goals**

KEY CONCEPTS

Environmental sustainability	Refers to the ability of the environment to survive its use for economic activity.
Sustainable development	refers to meeting the needs of the present generation without compromising the needs of future generations
Command and Control (CAC)	Direct government regulations that set strict legal limits on pollution levels, resource usage or specific manufacturing technologies.
Conservation	Sustainable management and controlled use of natural resources to ensure they do not run out.
Preservation	Keeping natural ecosystem completely protected from human economic exploitation for future generations.
Pollution	Refers to the introduction of contaminants (poisons) that damage the natural environment.
Triple bottom line	A sustainability framework that measures success based on three pillars: people (social), planet (environment) and profit (economic).
Green tax	Tax levied by the government on environmentally harmful products or activities to discourage their use.
Marketable permits	Permits issued by the government that sets a legal limit on emissions.
Soil erosion	The wearing away of the topsoil by water or wind from one location of the earth surface to another location.
Deforestation	It is the cutting down of trees or removal of forests from land so that the land can be used in a different way.
Climate change	A long-term shift in global or regional weather patterns and temperatures, driven by human activities like deforestation and burning fossil fuel
Chemical waste	Any discarded material containing unwanted or surplus chemical substances, containing properties like toxicity, flammability and reactivity.
Hazardous waste	A waste that is toxic to human health and the environment due to its chemical or physical properties.

THE STATE OF THE ENVIRONMENT

- The state of the environment is very important for environmental sustainability. If the environment is damaged, it will become more difficult to sustain life on earth. The environment can be damaged by excessive (too much) mining; by farming without allowing the soil to recover; by excess fishing without allowing the fishing stocks to build up again; and by not controlling the release of pollution.

Pollution

- Pollution relates to the introduction of contaminants (poisons) that damage the natural environment.
- Pollution can come from chemical substances released by factories, as well as from household and business waste and rubbish.
- Four main types of pollution are air pollution, water pollution, land pollution and noise pollution.

– Water pollution is when people dump waste material into rivers.

– Air pollution is caused by the emission of poisonous gases into the atmosphere – Land pollution occurs when waste materials are dumped on the land surface,

– Noise pollution is any excessive and unwanted sounds that disturb the well- being of people and other organisms

- All these forms of pollution impose external costs on society and are therefore examples of negative externalities.
- Environmental pollution costs the global economy trillions of dollars annually in health care expenses and lost productivity.
- Toxic air, unsafe water and contaminated soil cause deaths and sickness affecting low-income communities.
- Plastic pollution and chemical runoff destroy marine life, threatening the livelihoods of coastal fishing communities.
- The following are 3 ways of dealing with pollution:

- Technology and control: New technology is cleaner and has less impact on the environment. The government controls pollution by limiting the use of older technologies that pollute the environment.

- Marginal decisions: These are decisions made by government on what acceptable levels of pollution are. If the government is too tolerant or makes its decisions in the interest of expanding business rather than sustaining the environment, then pollution levels can rise to the point where they damage the environment.
- Self-interest: For example, keeping a beach litter-free. People use dustbins on the beach because they want to use a beach that is clean.

Erosion

- Soil erosion is the wearing away of the topsoil by water or wind from one location of the earth surface to another location.
- Some erosion occurs naturally however, human behaviour can also cause erosion.
- Human actions such as expanding housing and farming developments, mining activities and exploration as well as extreme sports can cause erosion.
- It affects the environment negatively as it reduces the fertility of the soil which reduces crop yields and threaten food security and can cause pollution of water sources.
- Poor agricultural practices and overgrazing, accelerate land degradation, which forces rural population to migrate to overcrowded cities.
- Soil instability leads to landslides and heavy siltation (clogging) in rivers, damaging roads, bridges and hydroelectric dams

Deforestation

- It is the cutting down of trees or removal of forests from land so that the land can be used in a different way.
- -+7 million hectares of forests are lost each year as land is cleared for housing and farming developments which destroys long-term ecological wealth.
- The increase in demand for food is a big cause of deforestation where ancestral lands, homes and traditional livelihoods are lost to deforestation.
- Deforestation can result in an increase in soil erosion and climate change as massive amounts of stored carbon are released into the atmosphere, worsening global warming

Climate change

- Rising global temperatures cause frequent and severe droughts, wildfires and floods that devastate local economies.
- Sea-level rises threaten coastal cities and island nations, creating millions of climate refugees and destroying expensive infrastructure.
- Developing nations and poor populations suffer the worst consequences of climate change, despite contributing the least to global emissions.

Conservation

- Conservation is the usage of the environment in a way that it is prevented from being damaged.
- It has a positive effect on the environment, as it represents measures to save the environment from harm.
- Conservation reinforces sustainable management of resources to ensure they remain available for future generations.
- Conservation of certain plants and animals is of importance for their survival.
- Certain endangered species e.g. Rhinoceros are conserved through legislation.
- Green economies that implement Eco-tourism, sustainable forestry and regulated fisheries create stable, long-term jobs while protecting biodiversity.
- Balancing immediate human financial needs with long-term resource conservation remains a major political struggle.

Preservation

- Preservation is the process of keeping the environment unharmed (intact).
- It also has a positive effect on the state of the environment as it protects elements of the environment that are threatened by extinction.
- National parks and strictly protected wilderness areas act as essential gene pools for endangered plants and animals.
- Government can use measures such as buying or expropriation, subsidies, and controls to implement preservation.
- Private property: A game reserve may be sold to a businessman to be used for farming. But the government can intervene and stop the sale because they recognise the importance to the environment of preserving game reserves.

- Preservation requires compromise (give and take): Farmers may develop their river mouth as a holiday resort. If this is not controlled, and too many other farmers do the same, the entire ecosystem will be damaged, and animal and plant life will be negatively affected.

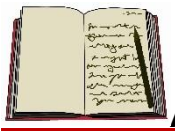
Government policy:

Government intervenes to preserve environmental assets by:

– Buying, confiscating, expropriating (taking ownership) or nationalising resources, e.g. indigenous forests.

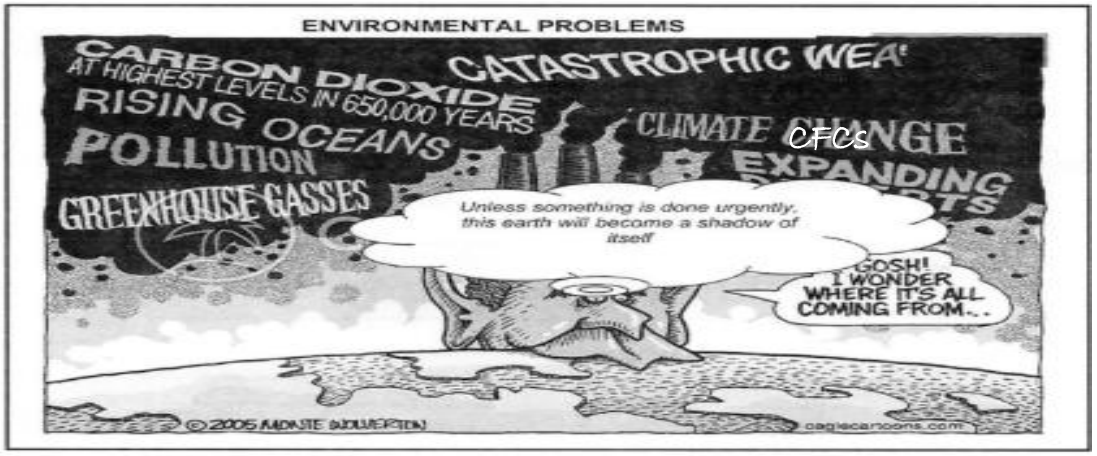
– Subsidising key resources, e.g. privately owned ecosystems.

- This is often done when conservation efforts are not successful.



ACITIVITY 1

1.1 Study the cartoon below and answer the questions that follows.



[Adapted from cartoons.com]

1.1 Identify in the cartoon above, an item that destroys the Ozone Layer. (1)

1.2 Which environmental problem relates to the introduction of contaminants (poisons) that damage the natural environment? (1)

1.3 Briefly describe the term *climate change.* (2)

1.4 How do rising ocean levels affect the environment. (2)

1.5 Differentiate between conservation and preservation. (4)

10 Marks

ACITIVITY 2

2.1 Study the cartoon below and answer the questions that follows.

SOUTH AFRICA'S STATE OF THE ENVIRONMENT

South Africa faces enormous depletion of resources and pollution. A recent analysis reveals that most South African breath air that does not meet World Health Organisation standards..

In the Thembisile Hani Local Municipality in Mpumalanga, a community garden, once vibrant, now struggles under the strain of drought, deforestation among others challenges, forcing residents to confront the harsh reality of environmental degradation and the urgent need for collective action to restore their lifeline.

Despite the factors contributing to the negative state of the environment, there are various organisations including the government that are engaged in improving the state of the environment through conservation and preservation.

[Adapted from: www.afrobarometer.org]

2.1 Identify the type of pollution described in the extract above. (1)

2.2 Which environmental problem is faced by the Thembisile Hani Local Municipality? (1)

2.3 Briefly describe the term *erosion.* (2)

2.4 Explain how deforestation can contribute to environmental degradation. (2)

2.5 Discuss any two measures that the Thembisile Hani Local Municipality can take to reduce pollution on their environment. (4)

10 Marks

MEASURES TO ENSURE SUSTAINABILITY (possible essay)

When markets are left to operate on their own, they often fail to protect the environment or conserve natural resources. Achieving environmental sustainability requires specific measures to address these systematic market shortcomings

Markets can be used to ensure sustainability in the following ways:

The market does not take care of social costs and benefits.

- The free market operates primarily on private costs and private benefits, completely ignoring the wider impact on society.
- Private companies only account for their direct production expenses and because they do not pay for the pollution or land degradation they cause, they produce goods at a much higher social cost than what the consumers pay.
- Activities that the benefit society (such as planting trees, developing clean energy technologies), are underfunded by the market.
- Markets prioritize immediate financial gain over long-term survival. Non-renewable resources are depleted rapidly because the market assigns zero value to the resource need of future human generation

The market fails because of specific reasons

- Market failure occurs when the market mechanism allocates scarce resources inefficiently, accelerating environmental destruction.
- Missing markets for public goods that are non-excludable and non-rival. Private market naturally neglects them since they are driven by self-interest and profit.
- Environment is a common resource that lack clearly defined ownership. Free access to free resources encourages maximised usage, leading to overfishing, air pollution and rapid deforestation.
- Lack of knowledge or incomplete information regarding sustainability enables people to favour cheap and environmentally damaging options.
- Carelessness: People continue with harmful practices and leave future generations to worry about the consequences.

The mechanism of the market and social costs and benefits

- Market forces fail to produce the desired result of environmental sustainability. All costs and benefits are not captured in the market price.

- The market captures only the private costs of production and private benefit of consumption. This means the social costs and social benefits are ignored.
- The price does not take into consideration external costs and external benefits of production and consumption

Measures that the government can ensure sustainable development (possible essay)

Granting property rights

- The conservationist effect: People care for things that belong to them.
- To prevent fauna and flora species from becoming extinct, people are granted property rights if they agree to preserve the flora and fauna.
- Property rights can be expanded to common goods such as clean air.
- The Kyoto Protocol is an international agreement whereby developed countries pay developing countries for their right to pollute
- If property rights could be expanded to common goods like clean air, those suffering from pollution could charge the polluters for the right to pollute.
- For example, if one has a property right to clean air in one's land, one can sue a power station for the smoke it produces.
- However, extending private property rights to air is impractical and therefore hypothetical (just for theoretical purposes). But the principle of polluters paying victims to reduce pollution is sometimes followed by governments.

Pay for environmental use

- Price the environment: The government levies fees for waste produced and dumped in the environment.
- In South Africa, local authorities levy charges on rubbish collection and sewage disposal.
- The best results are achieved when charges are proportional (related to) to waste produced.
- Consumers and producers pay a monthly fee to the government for the waste they produce and dispose of in the environment.
- Consumers pay municipal charges for rubbish collection and sewage disposal.
- Industries might also be levied emission charges and vehicle owners for gas emissions.

- For best results, the charges should be proportional to the waste produced.
- A fixed total charge such as a monthly charge will not encourage waste producers to reduce waste.

Levy environmental tax

- Environmental taxes are taxes imposed on the output of goods that generate external environmental costs (pollution). These are called green taxes.
- Government levies taxes on the output or consumption where environmental costs were generated e.g. tyres.
- Carbon dioxide emissions from wineries and vehicle tyres are taxed. The tax rate is equal to the marginal external cost.

Pay environmental subsidies

- The government can provide subsidies to encourage activities that reduce environmental damage. Subsidies could be for:

– Developing a new technique or equipment e.g. to save energy, reduce smoke or to use environmentally friendly energy such as wind, tide or sun energy.

– Encouraging the production of environmentally friendly substitutes such as unleaded petrol.

– Encouraging recycling of wastes such as bottles, cans and cardboard

- These subsidies reduce activities that cause environmental damage.

Issue marketable permits

- Governments may choose to charge for the pollution externality and raise a levy or tax to pay for it.
- In South Africa, marketable permits are granted by the Department of Minerals and Energy
- The government gives each business a license to pollute to a certain degree.
- Businesses can sell their licenses to other businesses.

Command and control

- The command-and-control approach sets legal limits on emissions and prosecute businesses and individuals when these are not adhered to.
- The laws and regulations limit the quantity of waste emitted into the environment.

- Most developed countries have regulations that control air and water pollution.
- There are 3 approaches in CAC systems:

- Quantity standards: These focus on the amount of pollution emitted.
- Quality standards: These focus on the environmental impact of the pollution emitted.
- Social impact standards: These focus on the effect on people of the pollution emitted

Voluntary agreements

- If the government convinces business to enter into an agreement where they set their own emissions targets in an environmentally responsible way.
- Businesses can then be persuaded to go along with the government's environmental agenda.
- Businesses prefer this these agreements because they can negotiate and build into planning.

Education

- People can be made aware of environmental problems and the importance of the environment to their survival.
- This awareness can convince people to live and work in a way that upholds environmental principles.
- People are now choosing to recycle, reuse and reduce waste products.



ACITIVITY 3

- Discuss in detail how the government can ensure sustainable development. (26)
- Analyse the reasons why the market fails to ensure environmental sustainability.(10)

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INTERNATIONAL MEASURES (possible essay)

Biodiversity

- Biodiversity refers to the variety of organisms on earth.
- It is concerned with genetic variety among individuals within the same species and the number of species within a community of organisms.
- Human activities like deforestation, overexploitation and urbanisation drive irreversible species loss.
- If species become extinct (die out completely), it cannot be reversed.

Measures taken:

- Modern techniques such as gene transplants can limit the loss of species.
- The establishment of internationally recognised and protected geographical zones secures critical global ecosystems.
- The Convention on International Trade in Endangered Species (CITES) sets many policies to deal with species loss. It regulates and restricts the international wildlife trade to prevent exploitation from threatening survival.
- The Convention on biological diversity (CBD) is a comprehensive global treaty promoting ecosystem conservation, sustainable use and fair access to genetic benefits.
- In South Africa, a permit is needed for importing plants and animals.

Chemical waste

- Chemical waste is toxic disposal of waste (it has a negative effect on living beings and can cause infertility or death) that needs to be carefully managed to ensure it does not seep into the ground water.
- Persistent chemicals travel up food chains, creating severe long-term reproductive, development and neurological disorders in animals and humans.

Measures taken:

- The Stockholm Protocol is a United Nations agreement to limit chemical waste. It also restricts the production and use of persistent organic pollutants (POPs).
- Strategic Approach to International Chemicals Management (SAICM) is a policy framework that promote chemical safety throughout lifecycle to protect human health.
- Rotterdam Convention protects countries that lack adequate infrastructure to monitor the imports and exports of dangerous chemicals.

Hazardous waste

- Hazardous waste is highly toxic, and it has a slow decomposition rate.
- Hazardous materials remain lethal and active in ecosystems for generations.
- Developed nations often export toxic electronic waste and industrial visual waste to developing nations lacking treatment infrastructure.
- Poor storage leads to toxic leakage, causing widespread groundwater poisoning, soil degradation and emergency medical crises.
- The most hazardous (dangerous) waste is radioactive waste from nuclear power.

Measures taken:

- The Basel Convention is an international agreement that manages nuclear waste and legally prohibits dumping in developing countries. South Africa is a signatory to the agreement.
- Extended Producer Responsibility (EPR) requires electronics and chemical manufacturers to take full responsibility for product disposal.

Climate change policy

- Global warming primarily causes climate change.
- Present occurrence of global warming is a consequence of human's gas emissions especial chlorofluorocarbons (CFCs), carbon dioxide and methane.
- Fossil fuel burning traps thermal radiation, driving global warming, rising sea levels and volatile weather.
- Extreme climate-driven events lower global GDP and severely strains agricultural industries

Measures taken:

- The Kyoto Protocol is an international treaty that legally bound developed nations to track, limit and reduce carbon emissions across sectors.
- The Paris agreement is a legally binding pact committing global governments to limit warming well below 2℃ aiming for a 1.5 ℃ cap.

Indigenous knowledge

- Indigenous knowledge refers to the knowledge that indigenous people in a particular area use to make a living.

- Traditional people used organic methods and natural processes in production.
- Local capacity building among indigenous people is important aspect of sustaining the environment.
- Climate displacement caused by floods and droughts severs the traditional transfer of environmental knowledge.
- Multinational corporations frequently exploit traditional medical and agricultural remedies without giving credit or financial return.

Measures taken:

- Local capacity-building is very important for the environmental sustainability of indigenous people, i.e. finding a way for them to earn a living in their traditional environment.
- UN Declaration on the Rights of Indigenous People (UNDRIP) recognises the fundamental rights of indigenous populations to control, protect and develop their traditional knowledge.
- The Nagoya Protocol ensures fair and equitable sharing of benefits arising from genetic and traditional ecological resources.

Major international protocol and agreements on sustainable development.

The United Nations Conference on Environment and Development (UNCED, 1992)

- Also known as **Rio Earth Summit** was the foundational moment for modern international environmental law.
- It is a set of 27 principles defining rights and responsibilities of nations that formed the foundation of the three pillar conventions of global environmental governance: The UNFCCC (Climate Change), The Convention on Biological Diversity (CBD) and The UNCCD (Convention to Combat Desertification)
- **Successes:**

- Rio summit was highly effective at creating a unified global language for sustainable development.
- It solidified environmental law concepts that still govern international courts today.
- It created the framework for carbon and biodiversity tracking.

- **Shortcomings:**

- Agenda 21 was entirely non-binding, meaning governments faced no legal or financial penalties for ignoring it.
- Developing countries were promised massive financial transfers and technology sharing from wealthier nations to implement Agenda 21, but these funds never fully materialised.

Johannesburg Summit (WSSD/ Rio+10, 2002)

- The World Summit on Sustainable Development (WSSD) in Johannesburg shifted the global focus away from creating new treaties toward implementing the goals set in Rio, with an explicit emphasis on poverty eradication.

Successes:

- It successfully integrated social justice and poverty alleviation into the core environmental agenda, moving the conversation beyond just 'saving nature' to 'sustaining human life'.

Shortcomings:

- The summit failed to produce any major legally binding multilateral agreements.
- Critics and civil society groups labelled the summit a failure because it lacked clear, time-bound targets for switching to renewable energy, largely due to intense pushback from major oil-exporting nations and corporate lobbies.

Rio+20 Summit UNCSD,2012)

- The United Nations Conference on Sustainable Development (UNCSD) sought to counter two decades of slow progress by modernising global economic models.

Successes:

- Rio+20 was highly effective at setting the stage for the 2030 Agenda.
- The structural shift toward the SDGs created a highly measurable, data-driven framework that businesses, cities and countries use today.

Shortcomings:

- The mandate of 'The future we want' was heavily diluted during negotiations.
- To reach a consensus among 190 countries, nearly all binding timelines and specific funding commitments of green technology were stripped from the document, leading to environmental groups to call it a hollow diplomatic exercise.

The Millennium Development Goals (MDGs 2000)

- The MDGs were established in the year 2000 and they consisted of 8 specific targets to be achieved by 2015 which are:
- Eradicate extreme poverty and hunger.
- Achieve universal primary education.
- Promote gender equality and empower women.
- Reduce child mortality.
- Improve maternal health.
- Combat HIV/AIDS, Malaria and other diseases.
- Ensure environmental sustainability.
- Develop a global partnership for development.
- The limitations of MDGs include:
- Soiled approach: environmental issues were isolated into just one goal, instead of being integrated into economic planning
- Narrow scope: the framework targeted developing countries but ignored the heavy consumption and pollution habits of wealthy nations.
- Unequal progress: growth was uneven, leaving behind the poorest and most vulnerable population and conflict zones.

The Sustainable Development Goals (adopted in 2015)

- Also called the 2030 Agenda, The SDGs expanded the framework into 17 independent goals with 169 specific targets.
- The SDGs integrate three pillars which are economic growth, social inclusion and environmental protection. The 17 goals include:
  - Climate action
  - Life below water
  - Responsible consumption and production
  - Affordable and clean energy
  - Sustainable cities and communities
  - Industry, innovation and infrastructure
  - Clean water and sanitation
  - Life on land
  - Partnerships for the goals
  - Gender equality
  - Decent work and economic growth
  - Zero hunger
  - No poverty
  - Quality education
  - Good health and well-being
  - Reduced inequalities
  - Peace justice and strong institutions

ACITIVITY 4

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



4.1 Identify in the cartoon above, the measure to ensure sustainability. (1)

4.2 State the international measure taken to protect the concept identified in 6.1. (1)

4.3 Briefly describe the term *biodiversity.* (2)

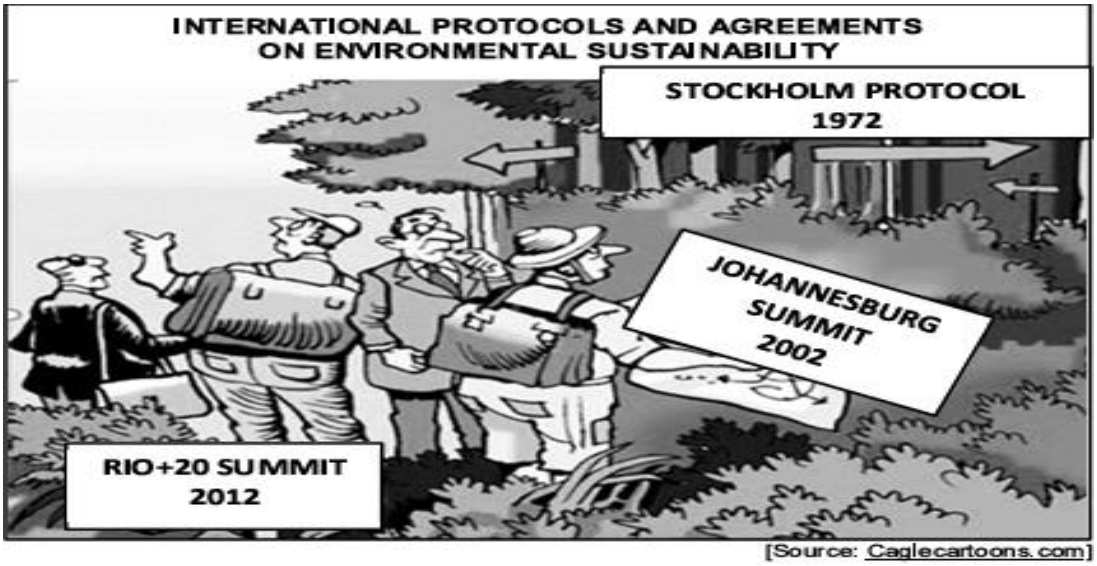
4.4 Explain the impact of loss of Indigenous Knowledge on the environment. (4)

4.5 Discuss hazardous waste and chemical waste as environmental problems and state the international measures used to mitigate them. (8)

16 Marks

ACITIVITY 5

5.1 Study the cartoon below and answer the questions that follows.



[Source: Caglecartoons.com]

5.1 Identify in the cartoon above, the international agreement that refers to the world summit on sustainable development. (1)

5.2 State the environmental problem that relates to the removal of trees. (1)

5.3 Briefly describe the term *chemical waste.* (2)

5.4 Explain the impact of loss of Indigenous Knowledge on the environment. (2)

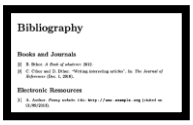
5.5 Discuss the measures taken to ensure sustainable development under climate change policy. (4)

10 Marks

ACITIVITY 6

- Discuss in detail problems and the international measures taken to ensure sustainable development. (26)
- Evaluate the government intervention measures to ensure the sustainability of the environment. (10)

40



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