

CHRISTIAN SOCIAL SERVICES COMMISSION (CSSC)
NORTHERN ZONE JOINT EXAMINATIONS SYNDICATE (NZ-JES)



FORM SIX PRE – NATIONAL EXAMINATION 2025

ECONOMICS 1

MARKING SCHEME

SECTION A: (20 Marks)

Answer **all** questions from this section

1. Economists agree that, demographic composition provides understanding which shapes social, economic, and political dynamics within a society. With examples, analyse the demographic composition of Tanzania in four points.

Population structure refers to the composition of a population based on various demographic characteristics such as age, sex, ethnicity, education level, income, and occupation. Understanding a population's structure is crucial for making informed decisions regarding social, economic, and health policies.

Tanzania's Population Structure

Tanzania's population structure is characterized by several key features:

- a) **Young Population:** Tanzania has a predominantly young population, with a high proportion of individuals under the age of 25. This is reflected in a pyramid-shaped population age structure, typical of developing countries. This young population presents both opportunities and challenges, such as a large potential workforce but also significant needs for education, healthcare, and employment.
- b) **Rapid Population Growth:** Tanzania's population is growing rapidly, driven by high fertility rates and declining mortality rates. This rapid growth puts pressure on resources, infrastructure, and social services, and can hinder economic development if not managed effectively.
- c) **Rural Dominance:** A large majority of Tanzania's population resides in rural areas, engaged primarily in subsistence agriculture. This has implications for poverty, access to education and healthcare, and environmental sustainability.
- d) **Ethnic Diversity:** Tanzania is home to over 120 ethnic groups, each with its own cultural practices, languages, and traditions. This diversity can contribute to social cohesion and cultural richness but also poses challenges in terms of managing ethnic tensions and ensuring equitable development.

Understanding these demographic characteristics is essential for addressing the specific needs and challenges facing Tanzania, such as poverty reduction, healthcare access, education, and environmental conservation.

2. Inward shift in production possibility frontier is not just theoretical knowledge, but realistic and practical as it is influenced by several real-world factors. With examples, comment on these statement with five points

An inward shift in the Production Possibility Frontier (PPF) indicates a decrease in an economy's production capacity. Here are five causes of this:

- (i) **Natural Disasters:** Events like earthquakes, floods, or hurricanes can destroy infrastructure, disrupt production processes, and reduce the availability of resources, leading to a decline in overall output.
- (ii) **War or Conflict:** Wars and conflicts can result in the destruction of physical capital, loss of human life, and disruption of economic activity, all of which can significantly reduce an economy's production potential.
- (iii) **Disease Outbreaks:** Pandemics or widespread diseases can lead to reduced labor force participation, increased healthcare costs, and disruptions in supply chains, negatively impacting production.
- (iv) **Environmental Degradation:** Depletion of natural resources, pollution, and climate change can harm the environment and reduce the availability of resources necessary for production.
- (v) **Decline in Technology:** A decrease in technological advancement or a failure to adopt new technologies can hinder productivity growth and reduce the overall production capacity of an economy.

SECTION B: (40 Marks)

Answer **two (2)** questions from this section.

3. (a) The additional output function for win company in a period is given as $3L^2 - 24L$ where, L is number of labour in Man-hours. Determine;
- (i) Number of labour (L) at point where diminishing marginal return start.
 - (ii) Number of labour which maximize the total of output
 - (iii) Number of labour employed to maximize Average Product
 - (iv) Indicate output rate function

Additional output means The Marginal Product (MP) function measures the additional output produced by adding one more unit of labor. In this case, the MP function is given as:

$$MP = 3L^2 - 24L$$

Part (i): Diminishing Marginal Returns

Diminishing marginal returns occur when the additional output from each additional unit of labor starts to decrease. This happens when the MP starts to decline. To find this point, we need to find the maximum point of the MP function. We can do this by taking the derivative of the MP function and setting it equal to zero:

$$dMP/dL = 6L - 24 = 0$$

Solving for L, we get:

$$L = 4$$

So, diminishing marginal returns start at **4 man-hours** of labor.

Part (ii): Maximizing Total Output

To maximize total output, we need to find the point where the MP function equals zero. This is because when MP is positive, adding more labor increases total output, but when MP is negative, it decreases total output. So, the maximum output occurs at the point where MP switches from positive to negative:

$$3L^2 - 24L = 0$$

Factoring out 3L, we get:

$$3L(L - 8) = 0$$

This gives us two solutions: $L = 0$ and $L = 8$. However, $L = 0$ doesn't make sense in this context, so the optimal number of labor hours to maximize total output is **8 man-hours**.

Part (iii): Maximizing Average Product

Average Product (AP) is the total output divided by the number of labor hours. To maximize AP, we need to find the point where the MP function equals the AP function. The AP function is:

$$AP = \text{Total Output} / L$$

To find the total output function, we need to integrate the MP function:

$$\text{Total Output} = \int (3L^2 - 24L) dL = L^3 - 12L^2 + C$$

Assuming the initial output is zero when no labor is employed, the constant C is 0. So, the total output function is:

$$\text{Total Output} = L^3 - 12L^2$$

Now, we can set MP equal to AP:

$$3L^2 - 24L = (L^3 - 12L^2) / L$$

Simplifying this equation, we get:

$$2L^2 - 12L = 0$$

Factoring out 2L, we get:

$$2L(L - 6) = 0$$

This gives us two solutions: $L = 0$ and $L = 6$. Again, $L = 0$ doesn't make sense, so the optimal number of labor hours to maximize average product is **6 man-hours**.

Part (iv): Output Rate Function

We already derived the total output function in part (iii):

$$\text{Total Output} = L^3 - 12L^2$$

This is the output rate function, which gives the total output for a given number of labor hours.

(b) Narrate five reasons for the government setting minimum wage.

Reducing Poverty and Inequality: A minimum wage ensures that workers receive a livable income, helping to reduce poverty and income inequality within a society. It provides a safety net for the most vulnerable workers, especially in low-wage sectors.

Promoting Economic Growth: A minimum wage can stimulate economic growth by increasing consumer spending power. When workers earn more, they have more money to spend on goods and services, boosting demand and benefiting businesses.

Improving Productivity: Studies suggest that a minimum wage can lead to increased productivity. Workers who are paid fairly are more motivated, have higher morale, and are less likely to miss work due to financial stress.

Reducing Reliance on Welfare Programs: A minimum wage can reduce the need for government welfare programs by providing workers with a sustainable income. This benefits both workers and taxpayers.

Promoting Social Justice: A minimum wage upholds the principle of fair compensation for work. It recognizes the value of all labor and ensures that workers are not exploited for their services.

4. (a) Give the following functions for commodity X.

$$Q_1 = -50 + 20P \text{ and } Q_2 = 190 - 40P$$

Where Q = quantity and P = Price (Tshs) of the commodity

- (i) With reason, identify the supply and demand function
- (ii) Using table, determine equilibrium price and quantity
- (iii) Determine price Elasticity of supply and comment on it
- (iv) Calculate the market shortage when the price is Tshs 3

i) Identifying Supply and Demand Functions:

- **Demand Function:** $Q_d = 190 - 40P$
 - It has a negative slope, As the price (P) increases, the quantity demanded (Q_d) decreases. This is the typical behavior of a demand function.
- **Supply Function:** $Q_s = -50 + 20P$
 - It has a positive slope, As the price (P) increases, the quantity supplied (Q_s) increases. This is the typical behavior of a supply function.

ii) Equilibrium Price and Quantity:

To find the equilibrium, we set Q_d equal to Q_s :

$$190 - 40P = -50 + 20P \quad 60P = 240 \quad P = 4 \text{ (Tshs)}$$

Substituting $P = 4$ into either the demand or supply equation:

$$Q = 190 - 40(4) = 30 \text{ units}$$

Therefore, the equilibrium price is Tshs 4 and the equilibrium quantity is 30 units.

iii) Price Elasticity of Supply:

Price elasticity of supply (PES) measures the responsiveness of quantity supplied to a change in price. It's calculated as:

$$PES = (\% \text{ change in quantity supplied}) / (\% \text{ change in price})$$

For a linear supply function, PES is calculated as:

$$PES = (\text{slope of supply curve}) * (P/Q)$$

In this case, the slope of the supply curve is 20. At the equilibrium point ($P = 4$, $Q = 30$):

$$PES = 20 * (4/30) \approx 2.67$$

Interpretation: Since $PES > 1$, the supply of commodity X is elastic. This means that a small change in price will lead to a relatively larger change in quantity supplied.

iv) Market Shortage at P = Tshs 3:

At $P = 3$:

- $Q_d = 190 - 40(3) = 70$ units
- $Q_s = -50 + 20(3) = 10$ units

$$\text{Market Shortage} = Q_d - Q_s = 70 - 10 = 60 \text{ units}$$

Therefore, at a price of Tshs 3, there is a market shortage of 60 units.

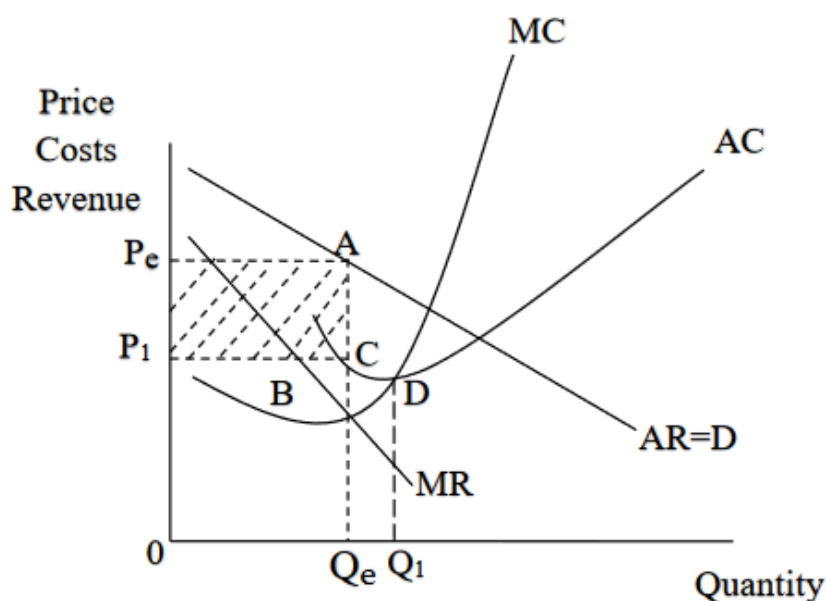
(b) Examine any five factors which affect the consumer sovereignty in the market.

Consumer sovereignty is the idea that consumers have the ultimate control over the goods and services produced in a market economy. However, several factors can limit the extent to which consumer sovereignty can be exercised:

- a) **Income Inequality:** Unequal distribution of income means that some consumers have more purchasing power than others. This can lead to situations where the preferences of wealthier consumers are prioritized over those of less affluent consumers.
- b) **Imperfect Information:** Consumers may not always have access to complete and accurate information about products and services. This can lead to suboptimal choices and reduce their ability to make informed decisions.
- c) **Marketing and Advertising:** Businesses use marketing and advertising to influence consumer preferences and behavior. This can limit consumer choice and lead to consumption patterns that do not necessarily reflect genuine needs and desires.
- d) **Government Intervention:** Government regulations, such as taxes, subsidies, and product bans, can restrict consumer choice and limit the range of goods and services available.
- e) **Market Power:** When a few firms dominate a market, they can exercise significant control over prices and product availability. This can reduce consumer choice and limit their ability to influence market outcomes.
- f)

These factors can collectively undermine consumer sovereignty and lead to a less efficient and equitable market economy. Addressing these limitations requires a combination of policies that promote competition, ensure consumer protection, and provide access to information.

5. (a) Study the following figure showing market structure of monopolist then answer the questions that follows;



Required:

- (i) Explain the relationship between marginal revenue (MR) and Average Revenue (AR)
- (ii) Determine excess capacity
- (iii) Determine equilibrium output and price
- (iv) What is TR, TC and profit (π) earned at equilibrium
- (v) Why is a firm not producing at lowest AC (at D)?

(b) Why firms struggle to look for better location of the business? Give 5 points.

- i. **Inertia and Sunk Costs:** Once a business is established in a particular location, there's a tendency to stick with it due to the investment of time, money, and resources. Relocating can seem like a major undertaking with significant costs and uncertainties.
- ii. **Risk Aversion:** Moving to a new location is inherently risky. Businesses may fear disrupting operations, losing customers, or facing unexpected challenges in the new environment. The unknown can be daunting, leading to a preference for the status quo.
- iii. **Lack of Information and Analysis:** Identifying a truly better location requires thorough research and analysis of various factors like market potential, infrastructure, labor costs, and regulatory environment. Many firms may lack the resources or expertise to conduct such comprehensive assessments.
- iv. **Short-Term Focus:** Businesses often prioritize immediate concerns like meeting quarterly targets or responding to short-term market fluctuations. This can lead to a neglect of long-term strategic planning, including the evaluation of location decisions.
- v. **Emotional Attachment:** Sometimes, businesses become emotionally attached to their current location, especially if it has historical significance or sentimental value. This can cloud rational decision-making and hinder the search for a potentially better location.

SECTION C: (40 Marks)

Answer **two (2)** questions from this section

6. Assume that, you have been invited by Tanzania Investment Centre and Tanzania Private Sector as economics student to talk about the relationship between privatization and economic development of our country. With eight points, what will you present?

- **Increased Efficiency:** Private companies are often driven by profit motives, which can lead to greater efficiency and cost reduction compared to state-owned enterprises (SOEs) that may be less accountable and prone to inefficiencies.
- **Enhanced Productivity:** Private sector competition can spur innovation and technological advancement, leading to increased productivity and higher quality goods and services.
- **Mobilization of Domestic Savings:** Privatization can unlock capital tied up in SOEs, making it available for investment in new ventures and stimulating economic growth.
- **Foreign Direct Investment (FDI) Attraction:** Privatization can attract foreign investment, bringing in capital, technology, and management expertise, which can contribute to economic development.
- **Reduced Fiscal Burden:** Privatization can reduce the financial burden on the government by transferring the ownership and operational costs of SOEs to the private sector.
- **Improved Governance:** Private sector involvement can promote transparency, accountability, and good governance practices, which are essential for sustainable economic development.
- **Job Creation:** Private sector growth often leads to job creation, reducing unemployment and poverty rates.
- **Infrastructure Development:** Private sector participation in infrastructure development can accelerate the pace of building essential facilities like roads, railways, and ports, which are crucial for economic growth.

7. With vivid examples, evaluate why devaluation policy is not very much successful in solving balance of payment problem in developing countries. (Give 8 points)

While devaluation can be a potent tool for addressing balance of payment issues, its effectiveness in developing countries is often limited by several factors:

- (i) **Inelastic Demand for Exports:** Many developing countries export primary commodities with inelastic demand. Devaluation may not significantly increase export earnings if foreign demand remains unchanged.
- (ii) **Price Inflexibility of Exports:** In some cases, international commodity prices are determined by cartels or global market forces, limiting the ability of devaluation to improve export competitiveness.
- (iii) **Import Dependence on Essential Goods:** Developing countries often rely heavily on imported essential goods like food and fuel. Devaluation can increase the cost of these imports, leading to inflation and social unrest.
- (iv) **Inflationary Pressures:** Devaluation can trigger inflationary pressures as the cost of imported inputs rises. This can erode the competitiveness gains from devaluation and further exacerbate balance of payment problems.
- (v) **Speculative Attacks:** In countries with weak economic fundamentals, devaluation can attract speculative attacks on the currency, further destabilizing the economy.
- (vi) **Debt Burden:** Devaluation can increase the debt burden of developing countries; as foreign debt becomes more expensive to repay in domestic currency terms.
- (vii) **Deterioration of Terms of Trade:** Devaluation can worsen the terms of trade for developing countries, especially those heavily reliant on imported inputs and technology.
- (viii) **Structural Economic Problems:** Devaluation alone cannot address underlying structural problems such as low productivity, inefficient production, and lack of diversification.

While devaluation can be a potent tool for addressing balance of payment issues, its effectiveness in developing countries is often limited by several factors:

8. The informal sector dominates Tanzania's labour market and government interventions have not effectively addressed the problem of unemployment. In four points, why government and informal sector are still struggling with this problem? In other four points, what needs to be done to address the problem in Tanzania?

Unemployment is a complex issue with multiple contributing factors. Here are four key causes of unemployment in Tanzania:

- **Rapid Population Growth:** Tanzania's high population growth rate leads to a larger labor force entering the job market each year. This can outpace the creation of new jobs, particularly in the formal sector.
- **Inadequate Education and Skills:** A significant portion of the Tanzanian workforce lacks the necessary education and skills to meet the demands of modern industries. This skills mismatch hinders employment opportunities.
- **Limited Job Creation:** The formal sector, which offers stable employment, has not expanded rapidly enough to absorb the growing labor force. This is due to factors like insufficient investment, bureaucratic hurdles, and a weak business environment.
- **Informal Sector Dominance:** The informal sector, while providing employment for many, is characterized by low productivity, low wages, and job insecurity. This sector's limitations contribute to overall unemployment.

Strategies to Reduce Unemployment in Tanzania

To address the issue of unemployment, Tanzania can implement several strategies:

- **Investment in Education and Skills Training:** Investing in quality education and vocational training programs can equip the workforce with the skills needed for modern jobs. This will enhance their employability and productivity.
- **Promoting Entrepreneurship and Small Business Development:** Creating a conducive environment for entrepreneurship can stimulate job creation. This can be achieved through access to finance, business training, and reduced bureaucratic hurdles.
- **Encouraging Foreign Direct Investment:** Attracting foreign investment can lead to the creation of new jobs and technology transfer. Government policies should focus on improving the investment climate, reducing corruption, and providing incentives to foreign investors.
- **Sector-Specific Strategies:** Prioritizing sectors with high job creation potential, such as agriculture, tourism, and manufacturing, can generate employment opportunities. Government support, including subsidies, infrastructure development, and tax incentives, can boost these sectors.