THE UNITED REPUBLIC OF TANZANIA

NATIONAL EXAMINATIONS COUNCIL

ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

151/1 **ECONOMICS 1**

(For Both School and Private Candidates)

Time: 3 Hours **ANSWERS** **Year: 2023**

Instructions

1. This paper consists of EIGHT questions.
2. Answer all questions in section A and choose two questions each from section B and C.

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1. Free market economy is driven by the forces of demand and supply and there is high consumer choice of goods and services and competition among producers. By giving five points, briefly explain the need of government interventions in the operation of free market economy.

Government intervention is needed to correct market failures such as externalities. For example, if a factory pollutes a river, the government must step in with environmental regulations or taxes to protect public health and the environment.

To protect consumers from exploitation, governments regulate prices and enforce safety standards. For instance, setting a price ceiling on essential medicines ensures they remain affordable for low-income families.

To ensure equitable distribution of income and wealth, governments impose progressive taxes and provide social services like education and healthcare to reduce inequality, which a pure free market does not address.

To provide public goods such as roads, defense, and street lighting, which the private sector has no incentive to supply due to non-excludability and non-rivalry, the government must take direct responsibility.

To stabilize the economy during periods of inflation or recession, governments use fiscal and monetary policies to influence demand and supply, reducing unemployment and ensuring sustainable growth.

2. "Oligopoly market structure may be homogeneous or differentiated by a few dominant firms." What could be the effects of oligopoly market in an economy? Briefly explain by giving five points.

Oligopolies can lead to price rigidity where firms are hesitant to change prices for fear of losing market share or triggering a price war. For example, telecom companies may keep prices stable for long periods.

They may lead to collusion where firms agree to fix prices or divide markets, reducing competition. This can result in higher prices and reduced consumer welfare, such as in the airline or petroleum industry.

Oligopolies may result in high advertising and branding costs. Firms invest heavily to differentiate their products, as seen in the soft drink industry (e.g., Coca-Cola vs Pepsi), leading to increased consumer manipulation.

Firms in oligopolies often enjoy supernormal profits due to limited competition. These profits can be reinvested in research and development, leading to innovation and improved products, like in the smartphone industry.

Oligopolistic firms may abuse their market power by restricting output or raising barriers to entry, limiting consumer choices and making it difficult for new firms to enter the market.

3. (a) State the law of marginal diminishing return and identify four assumptions supporting the existence of the law.

The law of diminishing marginal returns states that if increasing quantities of a variable input (e.g., labor) are added to fixed inputs (e.g., land or capital), after a certain point, the marginal product of the variable input will start to decline.

Assumptions include:
- Technology remains constant during the production process.
- There is at least one fixed factor of production.
- The units of the variable factor are homogeneous.
- The input is added continuously without sufficient time for adjustment of fixed inputs.

(b) Study the following table and answer the questions that follow:

(i) Complete the table by computing Total Product of Labour (TPL) and Marginal Product of Labour (MPL).

Labour (L)	TPL	MPL	APL
1	24	24	24
2	60	36	30
3	96	36	32
4	142	46	35.5
5	196	54	39.2
6	256	60	42.7
7	320	64	45.7
8	386	66	48.3
9	452	66	50.2
10	516	64	51.6
11	570	54	51.8
12	616	46	51.3

TPL is the cumulative sum of MPL.
APL = TPL ÷ L.

(ii) Construct the Total Product of Labour (TPL), Marginal Product of Labour (MPL), and Average Product of Labour (APL) from the completed table.

(Values already computed above.)

4. A monopolistic firm supplies a commodity in two markets with two different demand functions as follows:

$P_1 = 500 - Q_1$

$P_2 = 300 - Q_2$

The firm's total cost function is given as TC = 50,000 + 100Q

(a) Find the price and quantity of each market.

First, we find Marginal Revenue (MR) for each market:
$MR_1 = 500 - 2Q_1$
$MR_2 = 300 - 2Q_2$

Since MC = 100 and total quantity $Q = Q_1 + Q_2$, we equate MR to MC:
$500 - 2Q_1 = 100 \rightarrow Q_1 = 200 \rightarrow P_1 = 500 - 200 = 300$
$300 - 2Q_2 = 100 \rightarrow Q_2 = 100 \rightarrow P_2 = 300 - 100 = 200$

(b) Compute the profit or loss of monopolistic firm in each market.

$Q = Q_1 + Q_2 = 200 + 100 = 300$
Total Revenue (TR) = $P_1Q_1 + P_2Q_2 = 300\times200 + 200\times100 = 60{,}000 + 20{,}000 = 80{,}000$
Total Cost (TC) = $50{,}000 + 100\times300 = 80{,}000$
Profit = TR – TC = 80,000 – 80,000 = 0

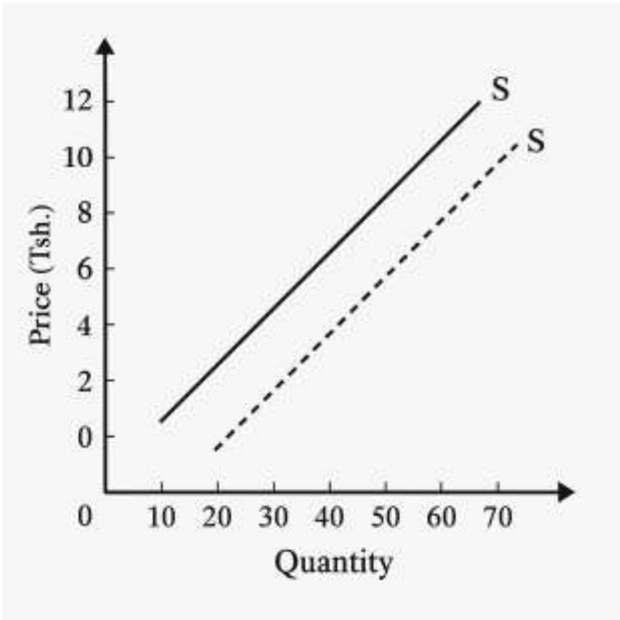
(c) Which market a firm enjoys supernormal profit? Give a reason for your answer.

Although the overall profit is zero, the firm charges a higher price in market 1 ($P_1 = 300$) than in market 2 ($P_2 = 200$). This suggests market 1 has lower elasticity of demand, allowing for higher mark-up and potential supernormal profit before averaging with losses or break-even from market 2.

5. (a) Consider the following price and quantity supplied in the table for rice produced in a certain area.

Prices (Tsh.)	2	4	6	8	10	12
Quantity	25	35	45	55	65	75

(i) Plot the supply curve.



(ii) Calculate the price elasticity of supply when price changes from Tshs 4 to Tshs 10.

Elasticity = $[(Q_2 – Q_1) / (Q_2 + Q_1)] \div [(P_2 – P_1) / (P_2 + P_1)]$
$Q_1 = 35$, $Q_2 = 65$, $P_1 = 4$, $P_2 = 10$
Elasticity = $(30 / 100) \div (6 / 14) = 0.3 \div 0.4286 = 0.7$ (Inelastic)

(b) Suppose that a rise in raw material costs in the table causes the producer to reduce supply by 15 bags at every price, plot a new supply schedule.

New supply:

Prices (Tsh.)	2	4	6	8	10	12
Quantity	10	20	30	40	50	60

(c) Explain five circumstances in which demand is likely to be highly elastic.

If there are many substitutes, such as different brands of bread, consumers easily switch, making demand elastic.

Luxury goods like designer clothes have elastic demand since they are not essential and consumers can do without them when prices rise.

When the proportion of income spent is high, demand tends to be elastic. For example, a small price change in house rent affects purchasing decisions greatly.

Over a long time period, demand becomes more elastic as consumers find alternatives or change consumption habits.

If the product is narrowly defined (e.g., Pepsi vs. soft drinks in general), demand tends to be more elastic due to available close substitutes.

6. "The barter system of exchange experienced some weaknesses." Justify this quotation by giving six points.

Barter requires a double coincidence of wants, meaning both parties must need what the other offers. For example, a fisherman who wants clothes must find a tailor who wants fish, which is often difficult and time-consuming.

There is no common measure of value, making it hard to determine fair exchange rates. For instance, how many baskets of mangoes should equal one goat? Without a standard unit, negotiations are inefficient.

Barter does not allow for divisibility. If a cow is worth 10 bags of maize but the seller only wants 5, the cow cannot be split without losing value, making the transaction impossible.

There is no provision for future payments, meaning it is difficult to lend, borrow, or save. A farmer cannot lend tools with a promise of repayment in exact goods later since goods perish or lose value.

Storage of wealth is problematic because many goods used in barter are perishable. For example, storing tomatoes or milk as wealth is impractical since they spoil quickly.

Transportation is cumbersome because exchanging goods involves moving bulky items. A person trading furniture for food must carry the furniture to the marketplace, incurring high transport and handling costs.

7. Describe six challenges that were encountered in the implementation of population policies in Tanzania.

Limited funding hindered the success of population programs. For example, lack of money for awareness campaigns and training led to poor outreach in rural areas where fertility rates were high.

Low literacy levels, especially in remote communities, made it difficult for people to understand the importance of family planning and population control.

Cultural and religious beliefs discouraged the use of contraceptives. Some communities view family planning as morally wrong, leading to resistance against government initiatives.

Shortage of trained personnel and healthcare infrastructure limited access to reproductive health services, especially in rural areas where clinics are few and understaffed.

Inconsistent political commitment and lack of continuity disrupted policy implementation. Changes in leadership sometimes meant abandoning or modifying previously established population programs.

Urban-rural disparities in services meant that urban areas received better healthcare and education on population issues, while rural communities remained underserved and uninformed.

8. In six points, examine the negative impacts of unemployment in the economy.

Unemployment leads to loss of income, reducing people's ability to meet basic needs such as food, shelter, and healthcare. For instance, a jobless parent may struggle to pay school fees or buy necessities for their family.

It reduces government revenue because unemployed people do not pay income tax. At the same time, the government must increase spending on welfare programs like food subsidies and job search assistance, straining the national budget.

Prolonged unemployment increases poverty levels. Without steady income, individuals fall below the poverty line, worsening social inequality and creating a larger burden on public services.

Idle labor resources lower national output. For example, when skilled youth remain jobless, their potential contributions to agriculture, industry, or services are wasted, slowing GDP growth.

It leads to increased social problems such as crime, drug abuse, and mental illness. Desperate youths without jobs may turn to theft or substance abuse due to frustration and lack of opportunity.

Unemployment discourages investment. High joblessness signals weak demand for goods and services, making both local and foreign investors hesitant to commit capital in such economies.