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: 2024

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.

1. In five points, briefly state the importance of opportunity cost in the economy.

Opportunity cost helps individuals, firms, and governments make informed decisions by evaluating the next best alternative foregone when a choice is made. It ensures that limited resources are allocated efficiently.

It encourages effective use of scarce resources by comparing the potential benefits of different uses, thereby avoiding wastage and promoting productivity.

Opportunity cost guides investment decisions by helping investors evaluate the most profitable alternatives, maximizing returns on capital.

It aids in production choices where firms assess the most beneficial combination of inputs and outputs, leading to better output and profitability.

Governments use opportunity cost to prioritize public projects and services based on the highest possible returns or social benefit, especially when faced with budget constraints.

2. Briefly explain five factors which determine the price elasticity of supply.

The time period affects elasticity as supply tends to be more elastic in the long run when firms can adjust production levels and input usage.

Availability of resources plays a role since the easier it is to access inputs, the more responsive producers are to price changes.

Production capacity affects elasticity because firms operating below full capacity can increase output quickly, making supply more elastic.

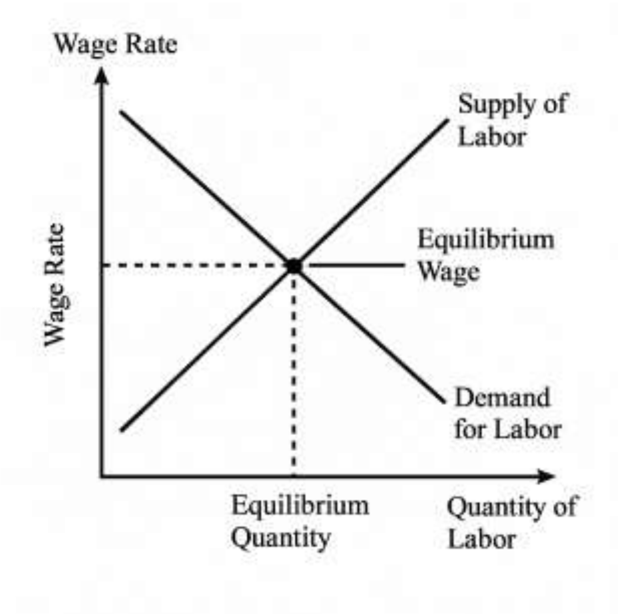
Mobility of factors of production matters since when inputs like labor and capital can easily move between industries, supply becomes more elastic.

Nature of the product influences elasticity; for example, agricultural goods may have inelastic supply due to seasonal constraints, whereas manufactured goods may be more elastic.

3. (a) How is the price of factors of production determined in a perfectly competitive market? Explain with the aid of a diagram.

In a perfectly competitive market, the price of factors of production is determined by the forces of demand and supply. Firms are price takers, and the equilibrium price is set where the quantity of the factor demanded equals the quantity supplied. The demand for a factor is derived from the marginal productivity of that factor, while supply depends on the availability and willingness of factor owners to offer it at various prices.

For instance, in the labor market, the equilibrium wage rate is determined where the demand for labor (based on marginal revenue product) intersects with the supply of labor (based on individuals' willingness to work at different wages).



(b) Explain three factors that affect capital accumulation in a country.

The level of income determines the ability of citizens to save. Higher income levels lead to higher savings, which can be channeled into investments and hence capital accumulation.

Interest rates influence savings and investment behavior. Higher interest rates encourage saving, while lower interest rates promote borrowing for investment, both of which contribute to capital formation.

Government policies such as tax incentives, subsidies, and a stable macroeconomic environment encourage both local and foreign investments, boosting capital accumulation.

4. (a) Study the following graphs and answer questions that follow:

(i) Name the curves J, K and L.

Curve J is the Average Total Cost (ATC) curve.
Curve K is the Marginal Cost (MC) curve.
Curve L is the Average Variable Cost (AVC) curve.

(ii) Explain the variation of J, K and L as output increases.

The MC curve (K) initially falls due to increasing returns to the variable factor and then rises due to diminishing returns. The ATC curve (J) also initially declines as fixed costs are spread over more units, then rises as MC exceeds ATC. The AVC curve (L) follows a similar pattern but lies below ATC since it excludes fixed costs.

(iii) Why is K starting from the original axis?

Curve K (MC) starts from the origin because when output is zero, marginal cost is also zero—there's no cost of producing nothing. As soon as production begins, marginal cost is incurred, hence it rises from the origin.

(iv) Why is the gap between J and K uniform?

The gap between J (ATC) and K (MC) is not truly uniform, but it narrows or widens depending on the position of MC relative to ATC. When MC is below ATC, ATC falls; when MC is above ATC, ATC rises. The gap appears smooth due to gradual changes in marginal costs.

(v) Why do curves J and L start from the same point?

J (ATC) and L (AVC) appear to start at the same point because at very low levels of output, fixed cost per unit is very high, and the gap between ATC and AVC is minimal. However, as output increases, the difference widens due to the impact of average fixed cost.

(b) Briefly describe five disadvantages of large scale business.

Large scale businesses may experience diseconomies of scale where average costs rise due to administrative inefficiencies and coordination problems.

Decision-making processes become slower because of complex hierarchies and bureaucracy.

They may lose personal contact with customers, reducing customer loyalty and responsiveness to feedback.

Labor relations can suffer, leading to industrial unrest due to impersonal treatment and reduced employee motivation.

Large firms can become inflexible in responding to market changes due to their size and established structures.

5. (a) Given the working population of country A as 20 million, the old as 15 million and the young as 25 million;

(i) Calculate country A's dependence ratio.

Dependence Ratio = (Old + Young) / Working Population
Dependence Ratio = (15 million + 25 million) / 20 million
Dependence Ratio = 40 million / 20 million = 2.0 or 200%

(ii) Give economic interpretation of the value obtained in (i).

A dependence ratio of 200% means that for every one working person, there are two dependents (either too young or too old to work). This puts immense pressure on the working population, increasing the burden of supporting non-working groups through taxes, healthcare, and education.

(b) Identify four advantages and four disadvantages of a population structure in (a)(i).

Advantages:
It provides a large potential workforce in the future as the young population matures.
A youthful population can bring innovation and adaptability into the economy.
There is a strong domestic market due to high consumption among dependents.
It opens opportunities for growth in education, health, and social services industries.

Disadvantages:
The economy faces high dependency burdens, straining public services and resources.
High costs of education, healthcare, and social welfare services are incurred.
There is limited savings and investment as incomes are consumed to support dependents.
Unemployment may rise in the future due to a rapid increase in the working-age population without enough job opportunities.

6. Evaluate six effects of deflation in different sections of the society.

Deflation discourages consumer spending as individuals expect prices to fall further in the future. For example, a family planning to buy a car may postpone the purchase hoping prices will drop, reducing overall demand in the market and hurting businesses.

Producers experience falling revenues because they are forced to sell their goods at lower prices. For instance, a clothing manufacturer that previously sold shirts at 20,000 TZS each may now sell at 15,000 TZS, cutting profit margins and leading to cost-cutting measures like laying off workers.

Borrowers suffer because the real value of money increases. If a farmer took a loan of 10 million TZS, during deflation he would repay it with money that has more purchasing power than when he borrowed it, increasing the real burden of debt and risking default.

Workers face unemployment and wage reductions. For example, a company may reduce salaries from 500,000 TZS to 400,000 TZS or retrench employees to survive declining revenues, reducing household incomes and consumption further.

Investors lose confidence in the economy as returns fall. For instance, a person who bought shares at 1000 TZS per share might see their value fall to 700 TZS, discouraging further investment and slowing economic recovery.

The government's revenue decreases because deflation shrinks economic activity, reducing VAT, income tax, and corporate tax collections. At the same time, it must increase welfare spending on unemployment benefits, healthcare, and food subsidies, creating budgetary pressure.

7. How can the government use monetary policy and fiscal policy to control the economic recession? Explain by giving six points.

The central bank can lower interest rates, making loans cheaper and encouraging borrowing. For instance, a business may take a loan at 8% interest instead of 15%, allowing it to expand operations and hire more workers.

Open market operations, such as purchasing treasury bonds, increase money supply in the banking system. This allows banks to lend more to the private sector. For example, a bank with more liquidity can offer loans to small businesses in agriculture or trade.

Quantitative easing can be used where the central bank buys long-term securities from financial institutions, increasing cash flow. For instance, banks receiving funds can offer mortgage loans or business financing, boosting consumption and investment.

Government spending can be increased on infrastructure such as roads, hospitals, and schools. For example, constructing a new highway creates jobs for engineers, drivers, and suppliers, injecting money into the economy and raising demand.

Reducing taxes on individuals and companies increases disposable income. A reduction in PAYE (Pay As You Earn) tax means workers have more money to spend, while reduced corporate taxes free up capital for businesses to invest in machinery or marketing.

Subsidies can be granted to key sectors like agriculture and manufacturing. For example, a fertilizer subsidy allows farmers to increase output, keeping food affordable and maintaining employment in rural areas.

8. A certain firm which is located near Umoja village produces a commodity which is highly demanded. As the firm increases production, it leads to pollution health risks for Umoja villagers. In the light of this situation, suggest six public methods which deal with externalities.

The government can introduce pollution taxes. For example, if the firm emits sulfur dioxide, it can be charged 500 TZS per unit of emission. This makes pollution costly, encouraging the firm to invest in cleaner technologies like scrubbers or filters.

Environmental regulations can be enforced, such as setting emission limits or banning the release of untreated waste into nearby rivers. For instance, the firm could be legally required to install effluent treatment systems before releasing wastewater.

Tradable pollution permits can be introduced where firms must buy rights to emit a certain amount of pollutants. If Umoja firm exceeds its limit, it must buy permits from cleaner firms. This market-based approach caps total pollution while rewarding efficiency.

Public awareness campaigns can be launched to inform Umoja villagers about health risks and preventive measures. For example, campaigns can promote planting trees or using protective gear to reduce exposure to air pollutants.

The government can invest in public goods that mitigate the effects of pollution. For example, building green belts or buffer zones between the factory and the village can absorb pollutants and reduce health impacts on residents.

Subsidies or tax incentives can be offered to the firm to adopt eco-friendly technologies. For instance, offering a 20% tax rebate on installation of renewable energy systems or low-emission machinery encourages sustainable production.