THE UNITED REPUBLIC OF TANZANIA
NATIONAL EXAMINATION COUNCIL OF TANZANIA
ADVANCED CERTIFICATE OF SECONDARY EDUCATION EXAMINATION

111   **ECONOMICS 1**

(For Both Private and School Candidates)

Duration: 3 Hour.   **ANSWERS**   **Year: 2025**

Instructions

1. This paper consists of sections A and B with a total of **eight (8)** questions**.**

2. Answer **all** questions in section A and choose **two (2)** questions from each section **B** and **C.**

3. Each question carries **twenty (20)** marks.

4. Write your **Examination Number** on every page of your answer booklet(s).

1. Why is it important to study economics to both individuals and firms? Explain by giving five points.

Economics helps individuals make rational decisions about their needs and wants based on limited resources. It enables prioritization and wise use of income to satisfy basic necessities.

It helps firms understand market dynamics such as demand, supply, and pricing, which are vital for profit maximization and production planning.

It enables individuals and firms to forecast future economic trends such as inflation, unemployment, and interest rates, which affect spending and investment decisions.

Studying economics enhances understanding of national and global economic systems, helping people interpret government policies and their impact on living standards or business operations.

It provides individuals and businesses with tools to assess opportunity costs, guiding efficient allocation of time, money, and resources to gain maximum satisfaction or output.

2. Examine five characteristics of boom period in trade cycle.

There is high consumer demand for goods and services during a boom, which drives production and sales, resulting in business expansion and profitability.

Employment levels rise significantly as firms hire more workers to meet increased demand. This lowers unemployment and increases household income.

Investment in capital goods such as machinery and infrastructure increases as firms seek to expand capacity and take advantage of favorable market conditions.

Government revenue from taxes increases due to higher incomes and corporate profits, enabling more public spending on services and development projects.

There is often a rise in inflation due to increased demand and money circulation, which may lead to higher prices of goods and services.

3. (a) Study the following figure and answer questions that follow:

(i) Name the curves W, X and Y.
W = Total Product (TP)
X = Marginal Product (MP)
Y = Average Product (AP)

(ii) Explain the variation of Total Product as the firm employs more variable factors.

At the beginning, Total Product increases at an increasing rate due to better utilization of fixed inputs. This continues until diminishing returns set in. After a certain point, TP increases at a decreasing rate as more variable input is added. Eventually, TP reaches a maximum and then starts to decline if additional inputs reduce overall output.

(iii) What happens at point C and D?
At point C, Marginal Product is at its maximum, meaning each additional input contributes the most to output.
At point D, Total Product reaches its maximum. Beyond this point, employing more variable input causes total output to decline.

(b) Explain five factors which affect the productivity of land.

Fertility of soil determines how well crops grow or how suitable land is for certain activities. Rich soils increase productivity.

Proper irrigation ensures availability of water, especially during dry seasons, thus improving crop yield and land usage.

Use of modern technology and tools like tractors, fertilizers, and improved seeds can enhance land productivity.

Access to markets motivates land use since producers can sell their products profitably, leading to better land utilization.

Security of land tenure encourages long-term investments in the land, such as clearing, fencing, or terracing, thereby improving output.

4. (a) Explain five forms of inter-related demand.

Joint demand occurs when two goods are used together, such as cars and petrol.

Complementary demand arises when the demand for one product increases the demand for another, like bread and butter.

Competitive demand occurs when goods are substitutes; for example, tea and coffee. An increase in the price of one leads to higher demand for the other.

Composite demand arises when a good is demanded for multiple uses, like milk for drinking, cooking, or making yogurt.

Derived demand exists when a good is demanded not for its own sake but for what it produces. For example, demand for labor depends on demand for the goods produced.

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(b) With the help of diagrams, illustrate the relationship between price elasticity of demand and total expenditure.

A diagram will show that when demand is elastic (PED > 1), a fall in price increases total expenditure. When demand is inelastic (PED < 1), a fall in price reduces total expenditure. At unit elasticity (PED = 1), total expenditure remains unchanged.

5. (a) Examine five features of a perfect competitive market.

There are many buyers and sellers, so no individual can influence the market price. Price is determined by market forces.

All firms sell homogeneous products, meaning goods are identical in quality and characteristics.

There is free entry and exit of firms in the market, making it easy for firms to respond to profit opportunities.

There is perfect knowledge among buyers and sellers about prices, products, and market conditions.

Resources are perfectly mobile, allowing factors of production to move easily between firms or industries.

(b) Suppose maize is sold under perfectly competitive market condition...

(i) How many kilograms will each firm sell per day?
At equilibrium, marginal cost (MC) = Average cost (AC).
$AC = 0.01Q - 1 + 100/Q$
$MC = 0.02Q - 1$
Set AC = MC:
$0.01Q - 1 + 100/Q = 0.02Q - 1$
Simplify:
$0.01Q + 100/Q = 0.02Q$
Multiply both sides by Q:
$0.01Q^2 + 100 = 0.02Q^2$
$100 = 0.01Q^2$
$Q^2 = 10,000$
$Q = 100$ kilograms

(ii) What are the long-run average cost and marginal cost at the level of output in (i) above?
$Q = 100$
$AC = 0.01(100) - 1 + 100/100 = 1 - 1 + 1 = 1$
$MC = 0.02(100) - 1 = 2 - 1 = 1$

(iii) What will be the price of maize in the long-run equilibrium?
Under perfect competition, price = AC = MC

Therefore, price = 1

(iv) How many kilograms of maize will be demanded in the market if market demand is given by QD = 2,500,000 - 500,000P?
Substitute P = 1
QD = 2,500,000 - 500,000(1) = 2,000,000 kilograms

(v) How many sellers will be in the industry?
Total quantity demanded = 2,000,000
Each firm produces 100 kilograms
Number of firms = 2,000,000 / 100 = 20,000 sellers

6. Account for the problems which may be encountered in compiling the price index. Give six points.

Choice of base year may be inappropriate if that year had abnormal events, making comparisons unreliable.

Selection of representative items is difficult because consumer preferences change over time and may not reflect actual patterns.

Changes in quality of goods and services are hard to account for, making comparisons between years misleading.

Weights assigned to items may not accurately reflect their importance in household spending.

Data collection errors due to poor recording, pricing variation between regions, or limited access to reliable data may distort the index.

Introduction of new goods and removal of obsolete ones creates inconsistency in the basket used for compiling the index.

7. "Large scale firms provide good working conditions and other facilities to employees." Support this quotation by giving six advantages of large scale production.

Large scale firms can afford to build modern workplaces with good lighting, ventilation, and safety standards, ensuring better working conditions.

They offer training and development programs for employees, enhancing skills and productivity.

They can provide welfare facilities such as canteens, medical services, and housing schemes, improving employee morale and retention.

Due to economies of scale, large firms can pay competitive salaries and benefits, attracting skilled labor.

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They often have structured departments and clear promotion paths, which motivate employees to work harder.

Large firms can afford to invest in automation and machinery that reduces manual labor and workplace fatigue.

8. Analyse six effects of high population density.

High population density leads to pressure on land, resulting in smaller land holdings and over-cultivation, which depletes soil fertility.

It causes congestion in urban areas, increasing traffic jams, housing shortages, and poor sanitation.

There is strain on social services such as healthcare and education, leading to overcrowded schools and understaffed hospitals.

High demand for jobs results in high unemployment and underemployment, especially among youths.

Overcrowding raises the cost of living due to increased demand for basic commodities and services.

Environmental degradation increases due to deforestation, pollution, and waste accumulation from densely populated communities.

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