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: 2020**

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. Briefly describe five factors that determine real wages.

The cost of living affects real wages directly. If nominal wages increase but the prices of goods and services rise faster, real wages decline, reducing purchasing power.

The level of taxation influences real wages. Higher income taxes reduce take-home pay, decreasing real earnings even when gross salary remains unchanged.

The supply and demand for labor play a role. When labor supply exceeds demand, real wages fall due to increased competition for jobs. In contrast, scarce skilled labor leads to higher wages.

Labor productivity determines how much output is produced per worker. Higher productivity often leads to higher real wages as employers can afford to pay more.

Government policies such as minimum wage laws or wage subsidies can raise real wages, especially for low-income earners, ensuring they maintain basic living standards.

2. Briefly analyse five effects of high population density in developing countries.

High population density leads to pressure on limited land, resulting in overcrowded housing, slums, and poor sanitation, especially in urban areas.

It increases unemployment and underemployment as the number of job seekers exceeds available opportunities, worsening poverty and social unrest.

Public services such as education and healthcare are strained, leading to poor quality, long queues, and overburdened staff, especially in public hospitals and schools.

It causes environmental degradation due to deforestation, waste accumulation, and water pollution from human activities and settlement expansion.

High population density leads to increased traffic congestion, noise pollution, and long commuting times, especially in cities with underdeveloped infrastructure.

3. (a) (i) Calculate income elasticity of demand for each commodity.

Formula:
Income elasticity = (% change in quantity demanded) / (% change in income)

Income change = (100,000 – 40,000)/40,000 = 150% = 1.5

For A:
Q change = (150,000 – 120,000)/120,000 = 25%

Elasticity = 0.25 / 1.5 = 0.167 (Normal necessity good)

For B:
Q change = (450,000 – 150,000)/150,000 = 200%
Elasticity = 2.0 / 1.5 = 1.33 (Luxury good)

For C:
Q change = (100,000 – 100,000)/100,000 = 0%
Elasticity = 0 / 1.5 = 0 (Perfectly income inelastic)

For E:
Q change = (40,000 – 80,000)/80,000 = -50%
Elasticity = -0.5 / 1.5 = -0.33 (Inferior good)

(ii) Give classification of each type of commodity.

A – Necessity
B – Luxury
C – Income inelastic
E – Inferior

(b) Analyse four practical applications of elasticity of supply.

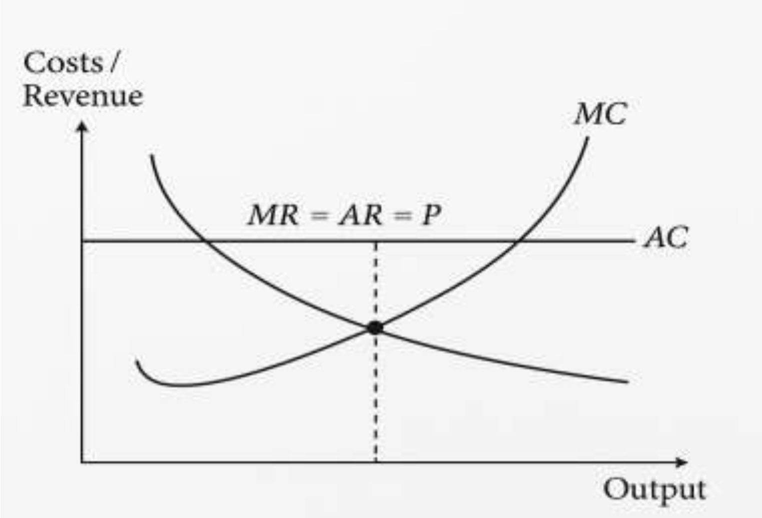
Helps governments forecast the impact of subsidies or taxes on output. For example, if supply is elastic, a tax may greatly reduce production.

Guides producers in planning production schedules. For instance, farmers need to know how quickly they can respond to price changes based on planting cycles.

Aids in managing inflation. If goods with inelastic supply are taxed, prices may rise sharply, so policymakers focus on goods with elastic supply.

Used in resource allocation. Firms prioritize investment in industries with elastic supply for higher responsiveness and profitability.

4. (a) Using a graph, illustrate production possibility frontier.



Equilibrium of the Firm Under Perfect Competition in the Short Run

(b) Identify four assumptions of production possibility frontier.

Resources are fully and efficiently utilized.

Resources are fixed in quantity but can be reallocated.

Technology remains constant during analysis.

Only two goods are considered for simplicity in illustrating trade-offs.

5. (a) Elaborate five factors that influence demand for money.

Transaction motive: People demand money to make daily purchases, which increases with income levels and economic activity.

Precautionary motive: Individuals hold money to cover emergencies or unforeseen needs, influenced by economic stability.

Speculative motive: People hold money when expecting interest rates to fall and bond prices to rise.

Price level: Higher prices increase the amount of money needed to maintain the same standard of living.

Interest rates: When interest rates are high, people prefer to hold less cash and invest more, reducing money demand.

(b) (i) Laspeyres' Price Index (base year = 2015)

Formula:
$LPI = (\sum P_1Q_0 / \sum P_0Q_0) \times 100$

Where:
P_1 = prices in 2015, P_0 = prices in 2013, Q_0 = quantities in 2013

$\sum P_1Q_0 = (510\times12)+(1110\times7)+(510\times7)+(310\times32)+(410\times22)+(300\times20) =$
$6120+7770+3570+9920+9020+6000 = 42,400$

$\sum P_0Q_0 = (190\times12)+(590\times7)+(390\times7)+(170\times32)+(210\times22)+(270\times20) =$
$2280+4130+2730+5440+4620+5400 = 24,600$

$LPI = (42,400 / 24,600) \times 100 = 172.36$

Interpretation: Prices increased by 72.36% from 2013 to 2015.

(ii) Paasche's Price Index (base year = 2013)

$PPI = (\sum P_1Q_1 / \sum P_0Q_1) \times 100$

$P_1Q_1 = (510\times18)+(1110\times14)+(510\times15)+(310\times30)+(410\times30)+(300\times38) =$
$9180+15,540+7650+9300+12,300+11,400 = 65,370$

$P_0Q_1 = (190\times18)+(590\times14)+(390\times15)+(170\times30)+(210\times30)+(270\times38) =$
$3420+8260+5850+5100+6300+10,260 = 39,190$

$PPI = (65,370 / 39,190) \times 100 = 166.77$

Interpretation: The price index increased by 66.77% from 2013 to 2015 based on current quantities.

6. Structural unemployment not only leads into social and economic changes in the society but also changes in demand and supply in specific economic industries. Discuss three causes and three remedies of structural unemployment.

Causes:
Technological changes render some skills obsolete. For example, automation in factories reduces demand for manual labor.

Industry shifts cause regional unemployment. For instance, closure of mines or factories in one area creates joblessness.

Globalization and trade lead to outsourcing, where jobs move to countries with cheaper labor.

Remedies:
Provide retraining programs to equip workers with new skills suitable for current industries.

Encourage labor mobility by improving transportation and housing in regions with job opportunities.

Offer incentives to industries to invest in areas with high structural unemployment.

7. Why a firm may operate below the shut-down point? Explain by giving six points.

The firm may hope for future recovery in prices or demand and chooses to stay in business temporarily.

It may operate to maintain customer loyalty and market presence, avoiding long-term brand damage.

Contracts or penalties for early closure may make operating at a loss less costly than shutting down.

Fixed costs such as rent or loan repayments must be paid whether production continues or not.

The firm may operate to retain skilled labor instead of rehiring and retraining later.

Social responsibility or political reasons may pressure firms to stay open to avoid mass unemployment.

8. A trade cycle is a wave-like movement characterized by alternation of expansion and contraction. Examine five causes of trade cycles in the economy.

Fluctuations in investment: Business optimism leads to booms, while pessimism reduces investment, triggering recessions.

Changes in consumption: Shifts in consumer confidence affect spending levels, influencing overall economic activity.

Government policies: Sudden increases or decreases in public spending or taxation can cause economic expansion or contraction.

Technological innovations: New inventions can boost growth, but saturation or obsolescence may slow down the economy.

External shocks: Wars, pandemics, or commodity price spikes (e.g., oil) disrupt production and trade, affecting the economic cycle.