THE UNITED REPUBLIC OF TANZANIA
FORM SIX PRE-NATIONAL EXAMINATION
CODE: 151/1. ECONOMIC 1. MARCH 2024.

MARKING SCHEMES.

SECTION A: (20 MARKS)

3. a) The parameters of Fisher's equation are as follows

$MV \equiv PT$ (well written eqn @ 1.5 marks)

Where,

"M" is the nominal stock of money in circulation, where changes in "M" will cause proportionate change in "P". (01 mark)

"V" the transactions velocity of circulation of money. That is the average number of times the given quantity of money changes hand in transactions). (01 mark)

"P" Average price of all transactions, changes in "P" will cause proportionate changes in "M". (01 mark)

"T" is the Number of transactions that takes place during the time period. (01 marks)

(b) Three demand for money by keynesian are:

(i) The transaction demand: is the demand for by firms and households for money to finance day-to-day transactions.

(ii) Precautionary demand: this arises out of the need to provide for unexpected and unplanned expenditure.

(iii) Speculative demand: refers to the demand for money as part of a wealth portfolio.

(1.5 marks @)

(TOT 10 marks)

2. How economic systems are differ:

(1) They are differ interms of ownership of major means of production (ownership of resources)

(2) They are differ interms of decision making, on what, how, where and for whom to produce.

(3) They are differ interms of allocation of ~~reso~~ scarce resources.

(4) They are differ in determination of price in the market.

(5) They are differ on how government intervene.

02 @ marks

(TOTO 10 marks)

(6) They differ in production relationship, as some are antagonistic production relation, has classes and exploitation while others are non antagonistic while some other has both.

(7) Economic motive: economic system differs in motive as some are profit oriented, but socialist are for the improvement of peoples welfare.

(8) Labour relationship. economic system differs in the freedom of enterprises as some system labour are commodity that can be sold and bought where a labour see beneficial but others labour stand as public property.

(9) Consumer freedom, economic differs in freedom of consumer as some consumer are more free comparing to other system

Section (B 20 marks)

(a) $Q^d = a - bP \quad b < 0$

$Q^s = c + dP \quad d > 0$

Then $Q^d = Q^s$

$a - bP = c + dP$ } ——— 02 marks 01 mark

$a - c = dP + bP$

$\frac{a-c}{d+b} = \frac{P(d+b)}{d+b}$ ——— 02 ——— marks 01 mark

$P = \frac{a-c}{d+b}$ ——— 01 marks

$Q^d = a - bP$

$Q^d = \frac{a}{1} - b\left(\frac{a-c}{d+b}\right)$ ——— 01 marks

$Q^d = \frac{a(d+b) - b(a-c)}{d+b}$ ——— 01 mark

$Q^d = \frac{ad + ab - ab + bc}{d+b}$ ——— 01 mark

$Q^d = \frac{ad + bc}{d+b}$ ——— 02 mark, 01 mark

TOTAL 10 marks 5 marks

3(i) $Q^S = c + dP$ but $P = \frac{a-c}{a+b}$

$Q^S = c + d\left(\frac{a-c}{a+b}\right)$ ——— 02 marks 1 mark

$Q^S = \frac{c}{1} + d\left(\frac{a-c}{d+b}\right)$ ——— 02 marks 1 mark

$Q^S = \frac{c(d+b) + d(a-c)}{d+b}$ ——— 02 marks 1 mark

$= \frac{dc + cb + ad - dc}{d+b}$ ——— 02 marks 1 mark

$Q^S = \frac{cb + ad}{d+b}$ ——— 02 marks 1 mark

Hence quantity demanded is equal to qty supplied ($Q^D = Q^S$)

TOT ~ 10 marks 5 marks

6(i) $P = -\frac{Q}{2} + 50$ Make "Q" the subject

$P = -\frac{Q}{2} + 50$

$P - 50 = -\frac{Q}{2}$ ——— (01 marks)

$(P - 50)2 = -\frac{Q}{2} \times 2$ ——— (01 marks)

$2P - 100 = -Q$

$Q = 100 - 2P$. demand equation (02 marks) 1 mark

$P = -\frac{Q}{2} + 50$ is demand equation because of negative coefficient (-2) or Negative slope. (01 mark)

$P = \frac{Q}{4} - 1$. Make the subject "Q"

$P + 1 = \frac{Q}{4}$ ——— 01 marks) 1 mark

$4(P + 1) = \frac{Q}{4} \times 4$ ——— (01 marks) 1 mark

$Q = 4P + 4$. it is supply equation (02 marks)

$P = \frac{Q}{4} - 1$ is supply equation, because of positive coefficient (4) or positive slope. (01 marks)

(TOT 10 marks) 5 man

(b) (ii) Equilibrium condition

$Q^d = Q^s$.

$100 - 2P = 4 + 4P$. ——— (01 mark)

$\frac{6P}{6} = \frac{96}{6}$ ——— (01 mark)

$P = 16$.

Equilibrium price is 16. ——— 2 (marks) 1 mark

Equilibrium quantity, Substitute $P = 16$ either demand or supply equation.

$Q^d = 100 - 2P$. but $P = 16$ ——— (1 mark)

$Q^d = 100 - 2 \times 16$ ——— (01 mark)

$Q^d = 100 - 32$ ——— (01 mark)

$Q^d = 68$ ——— (02 Marks) (1 mark)

Using supply equation

$Q^s = 4 + 4P$ but $P = 16$

$= 4 + 4 \times 16$

$= 4 + 64$

$= 68$ (1 mark)

Then Equilibrium quantity is 68. ——— (02 marks)

This confirm that at equilibrium quantity demanded is equal to quantity supplied.

(TOT 10 Marks) 5 marks

4 (a)(i) Super Normal Profit (Profit in ~~Agricultural Products~~)

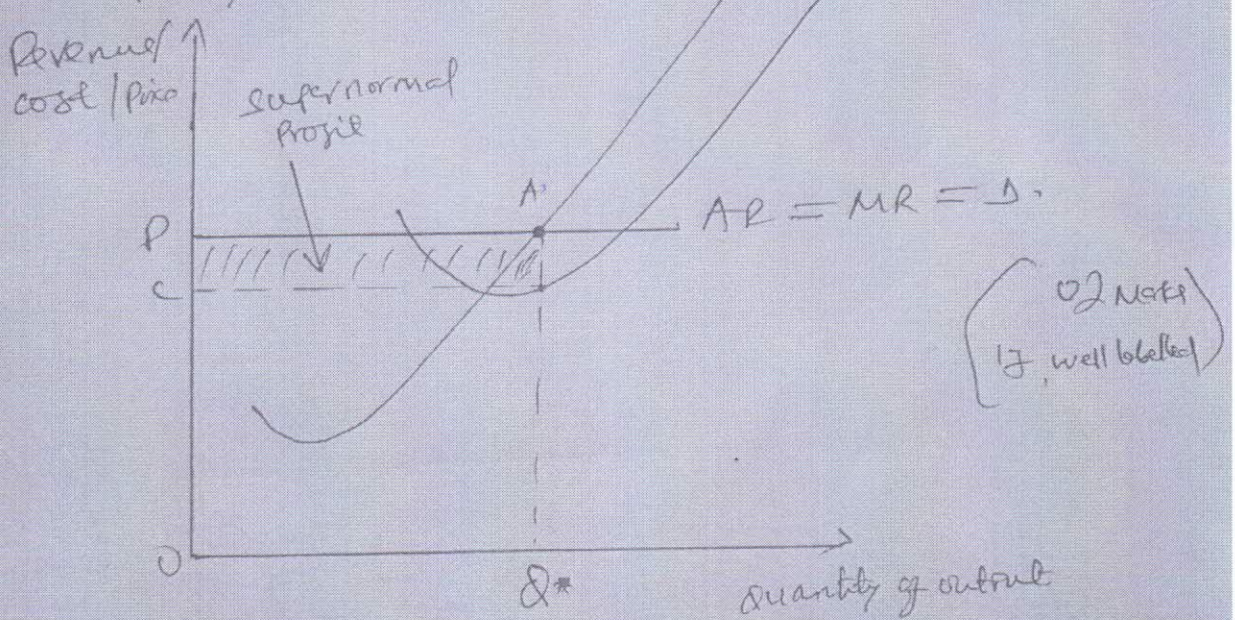
Conditions necessary for a firm to maximize Profit under Perfect Competitive Market.

(i) ~~MC = MR (P > AC)~~ P = MC = MR = AR > AC (02 Marks)

(ii) Marginal cost (MC) curve cuts Marginal Revenue (MR) curve from below when it is rising (02 Marks)

(iii) Price is greater than average cost (ATC) (01 Mark)

P > ATC.



(02 Marks if well labelled)

"A" shows equilibrium of a Firm, where MC = MR, P > ATC and output is Q*.

(Total 05 Marks)

4(a)(ii) Normal Profit. (Profit earned in Electronics class).

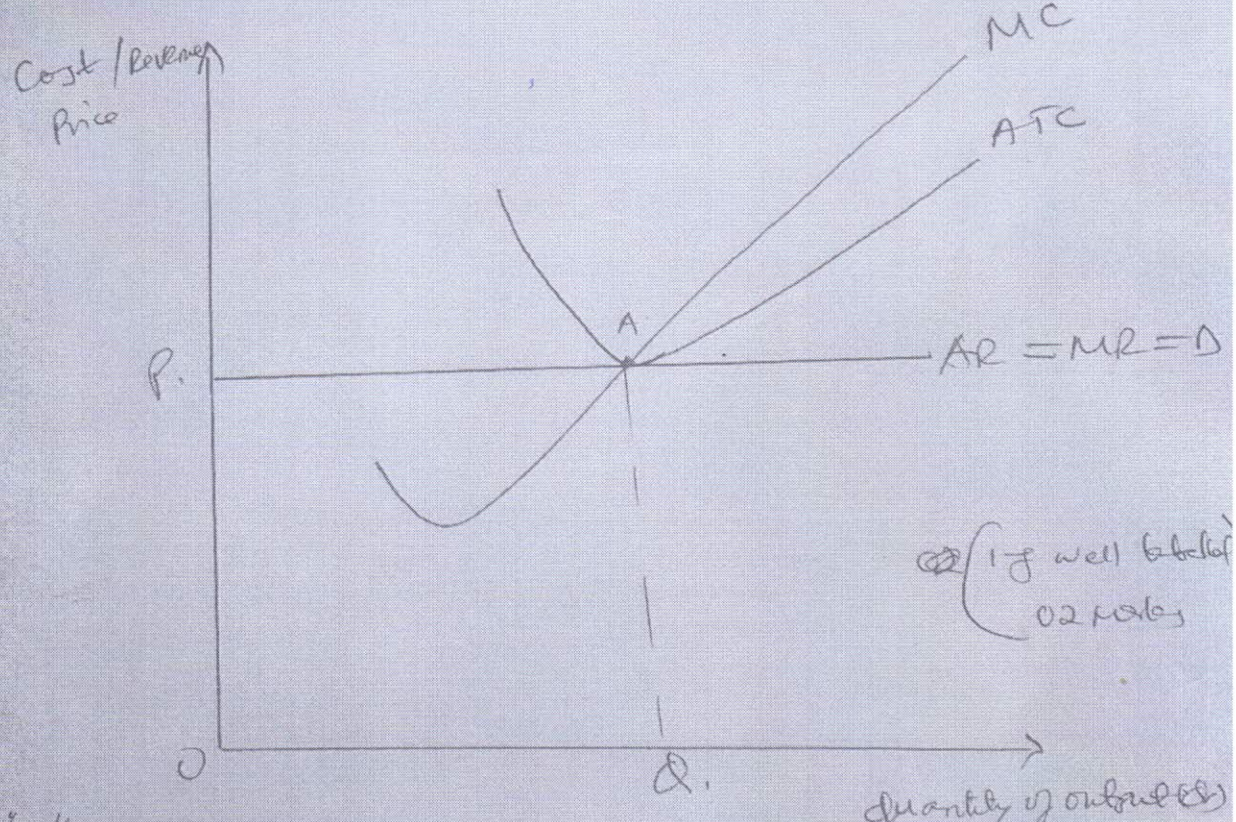
It is earned by a firm when its total revenue is equal to total cost (TR = TC).

Conditions:

(i) ~~MC = MR;~~ (P = AC) (01 Mark)
P = MC = MR = AR = AC

(ii) MC curves cuts the MR and ATC curves from below, which mean that the MC curve must be rising. (01 Mark)

(iii) TR = TC or P = ATC. (01 Mark)



(If well labelled 02 Marks)

"A" the firm is in equilibrium at point A where MC = MR = P = ATC.

(TOTAL 05 Marks)

(TOTAL of (a) 10 Marks)

4(b) (i) Profit equation:

$TC = Q^3 - 29.5Q^2 + 115Q + 120.$

$AR = 65 - 1.5Q.$

Profit (Π) = $TR - TC$. ——— (01 mark)

Then $AR = \frac{TR}{Q}$ ——— (01 mark) 01/2 mark

$TR = AR \cdot Q.$

$= (65 - 1.5Q)\,Q.$ ——— (01 mark) 01/2 mark

$TR = 65Q - 1.5Q^2.$ ——— (01 mark) 01/2 mark

Therefore Profit (Π) = $TR - TC.$

$\Pi = (65Q - 1.5Q^2) - (Q^3 - 29.5Q^2 + 115Q + 120.)$ (01 mark) 01/2 mark

$= 65Q - 115Q - 1.5Q^2 + 29.5Q^2 - Q^3 + 120.$ ——— (01 mark) 01/2 mark

$\Pi = -50Q + 28Q^2 - Q^3 + 120.$

$\Pi = -Q^3 + 28Q^2 - 50Q + 120.$

Hence the profit equation is

$\Pi = -Q^3 + 28Q^2 - 50Q + 120$ ——— (01 mark) 01/2 mark

(ii) output level that will maximize profit.

$MR = MC.$

$TR = 65Q - 1.5Q^2.$

$MR = \frac{dTR}{dQ}$ ——— (01 mark) 01/2 mark

$= \frac{d}{Q}(65Q - 1.5Q^2).$ ——— (01 mark) 01/2 mark

4 (b)(ii) $MR = 65 - 3Q^2$

$MR = 65 - 3Q$.

Second derivative.

$MR = \frac{dMR}{dQ}(65 - 3Q)$. ——— (01 mark) 01/2 mark

$\underline{MR = -3.}$ ——— (01 mark) 01/2 mark

$MC = \frac{dTC}{dQ}$, $TC = Q^3 - 29.5Q^2 + 115Q + 120$.

$MC = \frac{d}{dQ}(Q^3 - 29.5Q^2 + 115Q + 120)$. ——— (01 mark) 01/2 mark

$MC = 3Q^2 - 59Q + 115$ ——— (01 mark) 01/2 mark

Second derivative.

$MR = \frac{dMR}{dQ}(3Q^2 - 59Q + 115)$ ——— (01 mark) 01/2 mark

$\underline{MR = 6Q - 59.}$ ——— (01 mark) 01/2 mark

But level of output at maximizing Profit MC=MR when second order held.

$MR = MC$

$6Q - 59 = -3$.

$6Q = -3 + 59$ ——— (02 marks) 01/2 mark

$\frac{6Q}{6} = \frac{56}{6}$ ——— (02 marks) 01/2 mark

$Q = 6.22$ ——— (01 mark)

$\therefore$ The level of output at maximizing profit is 6 units

(Total of (b) 10 marks)

(TOT 20 marks)

Solution.

Q(2)(i)

Simple arithmetic Mean $= \frac{\Sigma P_n/P_0}{N} \times 100\%$

where P_n Price of current year.

P_0 Price of Base year. 1970 = 100.

Σ Summation of

N Number of Commodity price relative used.

(i) Price Relative for Rice $= \frac{P_n}{P_0} \times 100 = \frac{3.50}{2.00} \times 100 = 175\%$ (1 mark)

(ii) Price relative of groundnuts $= \frac{P_n}{P_0} \times 100 = \frac{30.00}{10.00} \times 100 = 300\%$ (1 mark)

(iii) Price relative for beans $= \frac{P_n}{P_0} \times 100 = \frac{4.00}{1.00} \times 100 = 400\%$ (1 marks)

(iv) Price relative for Meat $= \frac{P_n}{P_0} \times 100 = \frac{7.00}{5.00} \times 100 = 140\%$ (1 mark)

Therefore

Simple arithmetic mean $= \frac{\Sigma P_n/P_0}{N} \times 100\%$ (1 mark)

$= \frac{(175 + 300 + 400 + 140)}{4} \times 100\%$ (1 mark)

$= 253.25\%$ (1 mark)

The Price of 1976 were 253.75% of those 1970, an average of 153% increase in Price.

Therefore the Cost of living was increased in 1976 by 53% from 100% to 153. (1 mark)

→

5. (ii) Advantage.
- It is simple and easy to apply. (01 mark)

Disadvantage
- It doesn't take into account relative importance of various commodities. (01 mark)

(TOTO 10 marks)

(b) Utilities or uses of price index.
(i) It measure changes in the value of money.
(ii) It measure change in the cost of living
(iii) It help in analysing market for goods and services.
(iv) Assessing changes in living standard.
(v) The analyses and formulation of economic policies

any five point, 02 marks @

(TOTO 10 marks)

(vi) Usefull in International trade by measuring gain under term of trade
(vii) It is used to measure presence of inflation or deflation in an economy
(viii) It is used to measure the GDP of the nation using GDP deflator.

6. The question Need causes of unemployment.

Introduction definition of unemployment (02 marks)

Main body (02 marks each point)

(1) Inappropriate education are having.
(2) Rapid population growth
(3) Rural-urban migration
(4) Seasonal factor
(5) changes or improvement in technology
(6) slow growth of the economy.

(02 marks each point)

Conclusion (02 marks) relevant conclusion

Total 20 marks

(7) Disability cause residual unemployment.
(8) Under utilization of labour cause Disguised unemployment
(9) Friction in the labour market cause frictional unemployment.

7. Answer:

This question need cause of trade cycle/business cycle.

Introduction

Definition of Business Cycle (04 marks)

Main body.

(1) change in demand
(2) natural factors such as climate change and discovery of new natural resources
(3) change in Government policies
(4) fluctuations in Investment
(5) change in population
(6) Technological innovations
(7) Psychological causes (03 marks @)

(Conclusion of marks)

PT - 20 Marks

(8) Monetary Causes (monetary policy)
(9) Fiscal Causes (fiscal Policy)

8. Introduction:

definition Population: (01 mark)

Main body:

(i) It Predict, the labour market trend.

(ii) helps economists to analyse workforce

(iii) Help in assess the potential for economic growth

(iv) understanding population demographics, such as Age distribution and income level it aids in formulating the targeted economic policies.

(v) It contribute to forecasting demand for goods and services.

(vi) It enable businesses to make informed investment and production decisions.

(03 marks ⑧)

Conclusion. (01 marks)

TOTO (20 marks)