

IRINGA REGION

PRE NECTA MARKING SCHEME MARCH 2023

ECONOMICS 1

1. Peculiarities/Features/Characteristics of Land

- It is gift of nature
- Can not be moved from one place to another
- It is fixed in supply
- It differs in terms of fertility
- It obeys the law of diminishing return
- Price for land is Rent (payment for land is rent)
- Land can not work alone

Any five points @ 02 marks=10 marks

2. As economist I will convince the villagers by telling them advantages of mixed economic system over socialist economic system.

- It is the best system of allocating economic resources due to correction of the defects of both capitalist and socialist economic system
- It help to control market failures in resources allocation in the economy, like externalities.
- It widens the freedom of choice to producers and consumers than in socialist economy, because of existence of both public and private sector in the economy
- Controls inefficient in production and wastages in allocation of resources in the community.
- Minimizes the burden to the government which allows the government to provide only vital services to the public this help to improve efficient in service rendering

Any five points @02 marks=10 marks

3.a) Elasticity of supply concept has the following practical applications

- i) It helps the government to take a decision on whether to devalue the currency or not, if elasticity of supply of exports is high, devaluation would expand export markets and stimulate production of exports
- ii) It helps the government to determine policies to be adopted. If elasticity of supply is high, policies which increase prices e.g. increased competition among the buyers would lead to increase production. If elasticity of supply is low, the increase in price would have no impact
- iii) Using elasticity of supply figures, the government can tackle structural rigidities like land tenure systems, shortage of inputs etc which reduce producers response to prices
- iv) Elasticity of supply can be compared for different regions and policies can be designed to improve on producers responsiveness to price where it is low.
- v) Elasticity of supply figures can be compared for different commodities so as to improve on responsiveness where it is low. For example if price elasticity is low for export crops, there is need to concentrate inputs and incentives on those crops

Any five points @02 marks=10 marks

b) Given $Q_d=36-4p$ and $Q_s=-12+12p$

i) Equilibrium price and quantity is obtained when $Q_s=Q_d$

$$Q_d=36-4p$$

$$Q_s=-12+12p$$

$$36-4p=-12+12p$$

$$36+12=12p+4p$$

$$48/16=16p/16$$

$$P=3$$

From $QD=36-4P$, but $P=3$

$$36-4(3)$$

$$36-12=24$$

$$QD=24$$

The equilibrium Price=3 and Quantity=2402
marks

ii) Price elasticity of demand at equilibrium point

$$Pe = -\Delta Qd / \Delta P \cdot Po / Qo$$

$$\text{Then } Qd = 36 - 4P$$

$$\Delta Qd / \Delta P = -4$$

$$\text{Where } Po = 3 \quad Qo = 24$$

$$\text{Then } Pe = -(-4) \cdot 3 / 24$$

Price elasticity = 0.5 inelastic demand02marks

iii) Arc elasticity of demand when price fall from 5/= to 2/=

$$\text{From } Qd = 36 - 4P$$

$$\text{Then Price} = 5$$

$$Qd = 36 - 4(5)$$

$$36 - 20 = 16$$

$$Qd = 16$$

.....0.5mark

$$\text{At price} = 2$$

$$Qd = 36 - 4p$$

$$QD=36-4(2)$$

$$QD=36-8$$

$$QD=28$$

.....0.5mark

$$\text{Then Arc elasticity} = -\Delta Q_d / \Delta P \cdot P_o + P_n / 2 \div Q_o + Q_n / 2$$

$$-(Q_n - Q_o) / P_n - P_o \cdot P_o + P_n / 2 \div Q_o + Q_n / 2$$

$$\text{Arc elasticity} = 28 - 16 / 2 - 5 \cdot 2 + 5 / 2 \div 16 + 28 / 2$$

$$= -12 / -3 \cdot 7 / 2 \div 44 / 2$$

$$= 4 \cdot 7 / 44$$

$$\text{Arc elasticity} = 0.636 \quad \dots\dots\dots 02$$

marks

iv) Point elasticity of demand given $P=6$ =

$$\text{From } QD=36-4P$$

$$\text{But } P=6$$

$$Q_d=36-4(6)$$

$$36-24=12$$

$$QD=12 \quad \dots\dots\dots 01 \text{ Mark}$$

$$\text{Then Point elasticity} = -\Delta d / \Delta p \cdot P_o / Q_o$$

$$\text{But } \Delta d / \Delta p = -4 \text{ and } P_o = 6, Q_o = 12$$

$$\text{Point elasticity} = -(-4) \cdot 6 / 12$$

$$\text{Point elasticity} = 24 / 12 = 2$$

.....02 marks

It is elastic demand since point elasticity is greater to one

4. a) The following are the merits of imperfect competition market structure

- Higher degree of consumers choice on the commodities available.
- Higher quality and quantity of goods produced due to competition
- Higher level of employment and allocation of resources
- Higher mobility of factors of production eg labour
- Greater level of information to consumers due to advertisement in the market
- Stiff competition leads to research and discovery of new technology in production

Any five points @02 marks =10marks

b) Given $TC=1000+200Q-9Q^2+0.25Q^3$

i) Break even point in terms of price is obtained when $P=ATC$ or $P=AC$, or $MC=\text{Minimum } AC$

$$ATC=TC/Q$$

$$ATC=1000/Q+200Q/Q-9Q^2/Q+0.25Q^3/Q$$

$$ATC=1000/Q+200-9Q-0.25Q^2$$

$$\text{But } MC=ATC$$

$$MC=dTC/dQ$$

$$MC=200-18Q-0.75Q^2$$

$$MC=ATC$$

$$200-18Q-0.75Q^2=1000/Q+200-9Q-0.25Q^2$$

$$0.75Q^2-0.25Q^2=1000/Q+18Q-9Q$$

$$0.5Q^2=1000/Q+9Q$$

$$Q \times 0.5Q^2=Q \times 1000/Q+9Q \times Q$$

$$0.5Q^3=1000+9Q^2$$

$$0.5Q-9Q^2-1000=0$$

$$Q=22.096$$

$$Q=22.1 \text{ units}$$

In terms of Price

$$P=ATC$$

$$ATC=1000/Q+200-9Q+0.25Q^2$$

$$\text{But } Q=22.1$$

$$ATC=1000/22.1+200-9(22.1)+0.25(22.1)^2$$

$$P=ATC=168.45 \text{ OR } 168.5 \dots\dots\dots 02.5 \text{ MARKS}$$

ii) Break even point in terms of Quantity it is obtained where $P=ATC$ or $MC=ATC$

$$Q=22.1 \dots\dots\dots 02.5 \text{ MARKS}$$

iii) Shut down price and quantity

It is obtained where $MC=AVC$ or $P=AVC$

$$AVC=TVC/Q$$

$$=(200Q-9Q^2+0.25Q^3)/Q$$

$$AVC=200-9Q+0.25Q^2$$

$$MC=200-18Q+0.75Q^2$$

Then $MC=AVC$

$$200-18Q+0.75Q^2=200-9Q+0.25Q^2$$

$$0.75Q^2-0.25Q^2=18Q-9Q$$

$$0.5Q^2=9Q$$

$$0.5Q^2 - 9Q = 0$$

$$Q = 18 \text{ Units}$$

$$P = AVC = 200 - 9Q + 0.25Q^2$$

$$\text{But } Q = 18 \quad \dots\dots\dots 02.5 \text{ MARKS}$$

$$200 - 9(18) + 0.25(18)$$

$$200 - 162 + 81$$

$$P = 119 \quad \dots\dots\dots 02.5 \text{ MARKS}$$

5.a) i. The situation is referred to inflation which is the persistence increase of the general price level of goods and services in the economy.02 marks

ii. Reasons for its occurrence

- Excessive increase in the demand for goods and services in the economy.
- Increase in the cost of production
- Political instabilities
- Social evils eg smuggling, black market etc
- Depreciation of domestic currency.

Any four points @ 02 marks

b) i) Given $M^s = 20,000\text{TSH}$

$r = \text{Interest rate (10\%)}$

$y = \text{National income } 2,000\text{Tsh}$

Equilibrium rate of interest occurs when $M^d = M^s$

Then from $M^d = 20,000r + y$

$$20,000r + 2,000 = 20,000$$

$$29,000r = 20,000 - 2,000$$

$$20,000r / 20,000 = 18,000 / 20,000$$

$$R = 0.9\%$$

The equilibrium rate of interest is 0.9%

.....05marks

Given $M^s = 20,000$ Tsh

$$R = 10\%$$

$Y = 900$ new income

Equilibrium rate of interest occurs when $M^d = M^s$

Then from $M^d = 20,000r + y$

$$= 20,000r + 9,000 = 20,000$$

$$20,000r = 20,000 - 9,000$$

$$20,000r = 11,000$$

$$20,000r / 20,000 = 11,000 / 20,000$$

$$r = 0.55\%$$

The equilibrium rate of interest decreases from 0.9% to 0.55%05 marks

6. Malthus theory population refer to the to the theory that was advanced by British Rev. Thomas Malthus in his essay on principle of population of 1798 explaining the relationship between population increase and increase in food production under fixed supply of land01 marks

Criticisms of the theory

-Food or income is not the only determinants population growth

- The theory did not take into account the role of technology in agriculture that could lead into increase in food production and therefore match with increase in population
- He ignored the role of modern infrastructures which facilitate the movement of food from areas of abundance to the area of shortage
- He did not take into account the issue of income or resources distribution
- He ignored the role of population as an important factor of production
- In real situation population does not necessarily grow at Geometric progression and food production at arithmetic progression
- He assumed closed economy and therefore ignored the role of international trade and foreign aids (food aid) which could supplement local food deficiency

Any six points @ 3marks=18 marks

Conclusion01mark

7. Any relevant definition 01 mark

The student must provide six factors which indicate that the theory of full employment is unrealistic

- Presence of disability people
- Presence of full time education
- Presence structural unemployment
- Presence of seasonal unemployment
- Frictional unemployment
- Presence of some people who survive based on their wealth/income (Lucky people with high income)
- Full time home wives

Any six points @03 marks=18marks

Relevant conclusion01mark

8.a) The following are the cons/ disadvantages of privatization

- Loss of employments
- Essential goods may not be provided
- Capital and profits outflow
- Widening of income inequality
- Difficulties in planning
- Emergence of private monopolies

Any five points @02 marks=10marks

b) Causes of trade cycle

- Technological change/Technological innovation
- Change in climate
- Monetary policy
- Fiscal policy
- Fluctuation in investment (Over investment and under investment)
- Change in population
- Political condition
- Change in government policies

Any five points @02 marks=10

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