CERTIFIED PUBLIC ACCOUNTANT

FOUNDATION LEVEL 2 EXAMINATIONS

F2.2: ECONOMICS AND THE BUSINESS ENVIRONMENT

DATE: THURSDAY 29, FEBRUARY 24

MARKING GUIDE AND MODEL ANSWERS

QUESTION ONE

Marking guide

Criteria	**Marks**
a. Five factors influencing demand	
Product's Own Price	2
Prices of other products	2
Income available for spending	2
Price and availability of money and credit	2
Advertising or marketing effort	2
Taste and preference	2
Market Size	2
Taste and preference	2
Any other valid point attracts 2 marks	2
Maximum marks	10
b. Five demerits of a free market	
Distorted investment priorities	2
Exploitation of workers	2
Overproduction of goods	2
Growing social and economic inequality	2
Growing unemployment	2
Any other valid point attracts 2 marks	
2	
Maximum marks	10
Total	**20**

Model answers

(a) Demand is defined as the quantity of a commodity consumers are willing and able to buy in a market at a particular price in given time period. Demand does not constitute desires of people; a consumer must be able to buy the item at a given price.

Factors likely to influence the demand of UFL and MFL chicken

1) Product's own price

This is regarded as the most important influence on demand: normally, we expect a rise in price to lead to a fall in quantity demanded, and a price fall to produce a rise in quantity.

It is claimed that some goods operate in the reverse way. These are known as "Giffen goods". Although, strictly, the term "Giffen" applies only when the "inferior" income effect is more

powerful than the normal price substitution effect, it is often used more widely whenever demand appears to rise as price rises for whatever reason.
There are a number of other possible explanations. For example, people may, rightly or wrongly, associate price with quality - e.g. for tomatoes - and prefer to pay a little more in anticipation of obtaining a more satisfactory fruit.

2) Prices of other products
Chicken may be related to other products in the way of substitutes (where in absence of chicken you can buy another similar product like fish meat, goat meat or beef meat) all serving the same purpose) or complimentary (Where chicken are consumed in conjunction with other products).

If the price of chicken's substitute rises, the demand for chicken will rise and vice versa. When the price of a compliment of chicken increases, the demand for chicken will fall and vice versa.

3) Income available for spending
If consumers' disposable income increases, their ability to buy increases and this increases demand. The chicken's demand is likely to increase or decrease due to the change in consumers income.

For normal goods, we would expect the change in demand to be in the same direction as the change in income but for some inferior goods, the changes would be in the reverse direction so that a rise in income produces a fall in demand and vice versa. Notice that a good is inferior only if it is perceived as offering less satisfaction for a particular type of want.

4) Price and availability of money and credit
Many goods are bought with the help of borrowed money (credit). Money and credit have an influence on demand separate from the effect of income. If the cost of credit, i.e. the rate of interest rises, there is likely to be a reduction in demand for the more expensive goods.

5) Market Size
Many factors can change market size. A firm selling clothes to teenagers will benefit from any increase in the number of teenagers in the population. Specialist shops selling babies' and children's wear suffer from the declining birth rate. Market size can be increased by improvements in communications and technology.

6) Advertising or marketing effort
Very few products sell themselves. Most have to be marketed, and the more extensive the advertising effort, the more is likely to be sold. Some marketing specialists suggest that there is a direct relationship between the firm's share of market advertising and its share of market sales. Certainly, it is the volume of advertising in relation to competitors' advertising that is likely to be important.

7) Taste and preference

This is a quality difficult to define. People's desire to buy products is the result of many influences, not all of which are fully understood. Fashions change, and these changes cannot always be caused by advertising. The successful firm is often the one that is able to make an accurate prediction of changes in fashion and taste.

If consumers preference shift from goat and beef to chicken, the demand for chicken will increase.

8) Expectations

Expectations of future changes in any of the above influences can affect present demand. For example, people expecting rising prices will buy now rather than later. On the other hand, if they fear unemployment and falling incomes, they will cut down their present spending. Notice that these reactions may actually help to bring about the feared future changes.

b. A free market system or capitalist economy is an economic system where there is absence of government intervention and where the forces of demand and supply determine the price and the quantity.

Decisions are made largely by private individuals and firms. They decide what to produce, how to produce and for whom to produce. Therefore, resources are allocated through the forces of supply and demand. This system works under private authority and its aim is to earn maximum profit.

Demerits:

1. Distorted investment priorities

Wealth gets directed into what will earn the largest profit and not into what most people really need (so public health, public education, and even dikes for periodically swollen rivers receive little attention);

2. Exploitation of workers

Worsening exploitation of workers, since the harder, faster, and longer people work just as the less they get paid, the more profit is earned by their employers (with this incentive and driven by the competition, employers are forever finding new ways to intensify exploitation);

3. Overproduction of goods

Since workers as a class are never paid enough to buy back, in their role as consumers, the ever-growing amount of goods that they produce (in the era of automation, computerization and robotization, the gap between what workers produce and can produce and what their low wage allows them to consume has increased enormously);

4. Growing unemployment

Machines and raw materials are available, but using them to satisfy the needs of the people who don't have the money to pay for what could be made would not make profits for those who own the machines and raw materials and in a market economy profit are what matters.

5. Growing social and economic inequality

The rich get richer and everyone else gets poorer, many absolutely and the rest in relation to the rapidly growing wealth of the rich.

QUESTION TWO

Marking guide

Criteria	**Marks**
a. Explanation of price elasticity of supply	1
Inelastic supply (RUBAVU and MUSANZE)	2
Elastic supply for RUSIZI	1
Unitary elasticity for NYAMATA	1
Availably of cheaper construction materials	1
Gestation period	1
Government policy	1
Any other valid factor attracts 1 mark	1
Maximum marks	8
b. Own houses and rented houses as substitutes	2
Cross elasticity of demand as a measure of negative effect	2
Graphical illustration of demand shift for rented houses	2
Interpretation of graphical illustration	2
Maximum marks	8
c. Limitations of consumer sovereignty theory	
Inequitable distribution of income	1
Scarcity of resources	1
Monopoly power	1
Any other valid limitation attracts 1 mark	1
Maximum marks	3
Total	**20**

Model answers

a. Price elasticity of supply refers to the measure of responsiveness of quantity supplied to the changes in commodity own price. It can be calculated using the following formula:

PES=(ΔQ/Q_0)/(ΔP/P)

ΔQ: Change in quantity supplied **Q:** Original quantity supplied of a commodity
ΔP: Change in price **P:** Original price of a commodity

- Price elasticity of supply of zero (PES=0) means that the change in price has no effect on quantity supplied, hence supply is **perfectly inelastic**.

- A price elasticity of supply higher than zero but less than one implies an inelastic supply where the percentages change in price is greater than the percentage change in quantity supplied, hence supply is said to be **inelastic**. This is the case for KAYONZA and RUBAVU district.

- When price elasticity of supply is greater than one but less than infinity, it means that the percentages change in quantity supplied is greater than the percentage change in the price, hence supply is **elastic**. This is the situation for RUSIZI.

- A price elasticity of supply that is equal to one (1) implies an equal percentage change in both the price and quantity, supply is said to be **unitary elastic**. From our case, this is the situation for NYAMATA district.

The supply is unresponsive to the price in KAYONZA more than ten times (inelastic supply) compared to RUSIZI where supply is elastic. It is easier to build houses in RUSIZI than in Kayonza. Price elasticity of supply in RUSIZI is possibly influenced by the following factors than in RUBAVU and Kayonza.

Factors influencing higher elasticity of supply in RUSIZI and NYAMATA than in RUBAVU and KAYONZA:

- Availability of cheaper construction materials

Availability of cheaper construction materials (factors of production), land and construction technology. With availability of affordable factors of production, when the price increases, there will be an increase of new houses immediately**.**

- Gestation period

There is a possibility that RUSIZI has an advanced construction technology that makes ready built houses in a short period of time.

▪ Government policy

Price elasticity of supply for RUSIZI is high because of probable newly developed residential sites in line with the city master plan together with a government policy encouraging construction works.

(i) Ease of entry of new firms

Real estate's developers have no restrictions in RUSIZI than in RUBAVU and KAYONZA.

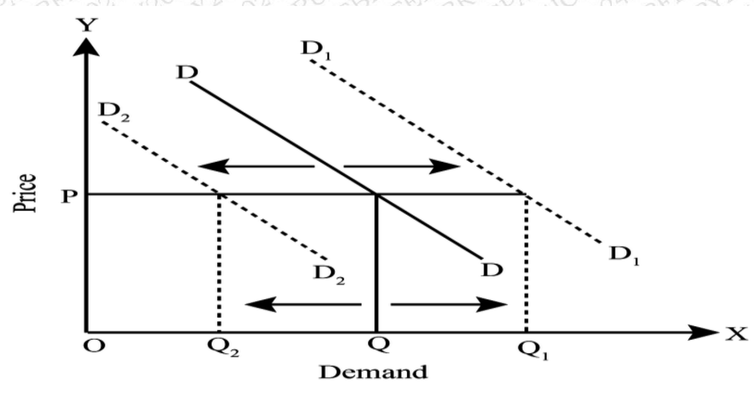
b. **Home Nkunganire scheme** is a government initiative designed to subsidize home ownership so that a large number of salaried citizens will be attracted to buy ready built houses from real estate developers so that they can substitute rented houses.

❖ Rented houses and self-owned houses are identified as substitutes. They both provide shelter to families. An increase in houses ownership motivated by home Nkunganire scheme will have a negative impact on rented houses.

❖ The negative impact on rented houses will be measured by the **cross elasticity of demand**. It is a measure of responsiveness of the demand for a good, to the change in the price of a substitute or complement good, other factors remaining constant.

CED = Percentage change in quantity demanded of a product/ Percentage change in the price of a substitute or compliment

Graphica



From the above graphical illustration, the movement of demand curve from **D** to **D2** indicates a leftward shift of demand curve resulting from a decrease in the price of a substitute due to the introduced home Nkunganire scheme, which lowered down the price of houses. In this case, the cross elasticity of demand is positive, indicating a substitute.

c. Consumer sovereignty theory states that consumer preferences determine the production of goods and services. This means that consumers can use their spending power as "votes" for goods and producers respond accordingly by producing those goods.

Limitations of consumer sovereignty theory:

(i) Inequitable distribution of income
Lower income earners have limited options because of their income contrary to higher income owners.

(ii) Scarcity of resources
A country may not be having enough resources and technology favoring the production of what consumers prefer.

(iii) Monopoly power
Monopoly power may override consumer sovereignty as there may not be other options in the market. A consumer is forced to buy at a price set by the monopoly.

(iv) Government restrictions
Government may impose taxes to discourage the consumption of some specific products, or ban the production of some other items such as opium and guns.

QUESTION THREE

Marking guide

	Criteria	**Marks**
a.	Explanation of the law of absolute advantage	2
	Production possibilities table and its interpretation	2
	A graphical illustration of production possibility frontier	2
	Definition of economic growth and how it will be achieved	4
b.	Cleary identification of MSC, MPC, MPB and MSB	4
	Identification of where tourism industry faces negative externality	6
Total		**20**

Model answers

a) The law of absolute advantage states that a country has absolute advantage over other countries if it can produce a commodity at less inputs cost than others. From our case study, Rwanda produces more flowers at a lower average cost than Netherlands.

The following factors give Rwanda absolute advantage over Netherlands in producing flowers:

- Heating costs in Netherlands make flowers very expensive as Rwanda benefit sunlight throughout the year

- Rwanda is a country of thousand hills (high altitude country) giving a cool night temperature

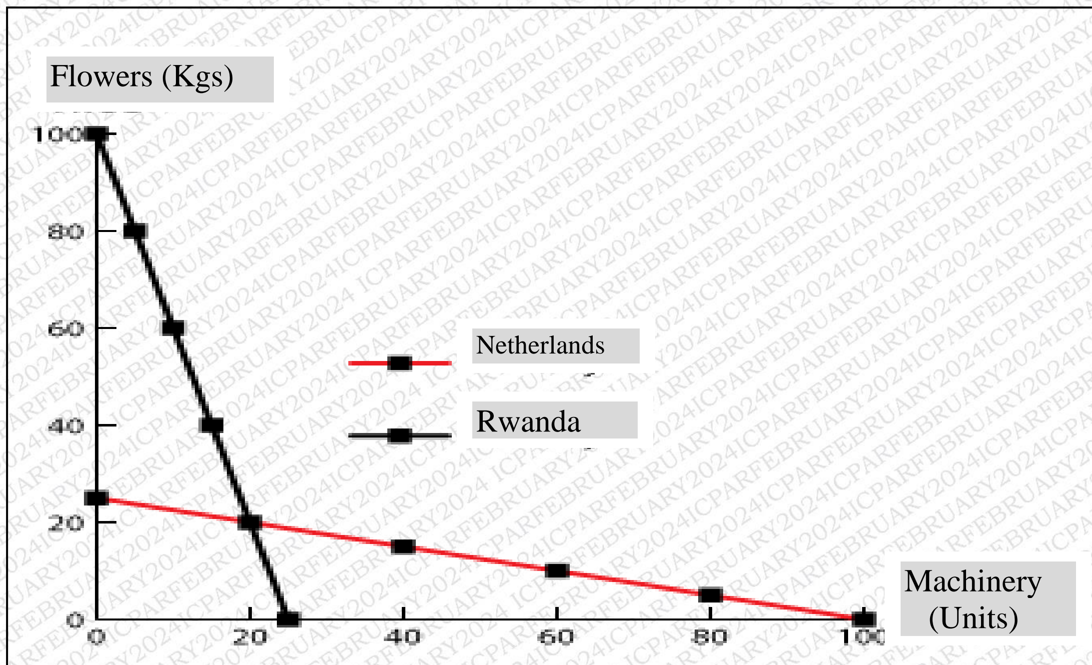
- Availability of cheap labor

Production possibilities table before specialization:

Output per one unit of resources	Flowers (Kgs)	Machinery(units)
Rwanda	100	25
Netherlands	25	100

The above table shows a situation where Rwanda can produce 100 kgs of flowers and 25 unites of machines. On the other hand, Netherlands produces 25kgs of flowers and 100 units of machines.

Production possibility frontier before specialization:



Production possibility table after specialization:

Output per one unit of resources	Flowers	Machinery
Rwanda	200	0
Netherlands	0	200

Economic growth refers to the persistent quantitative increase in the volume of goods and services produced in the country in a period of time.

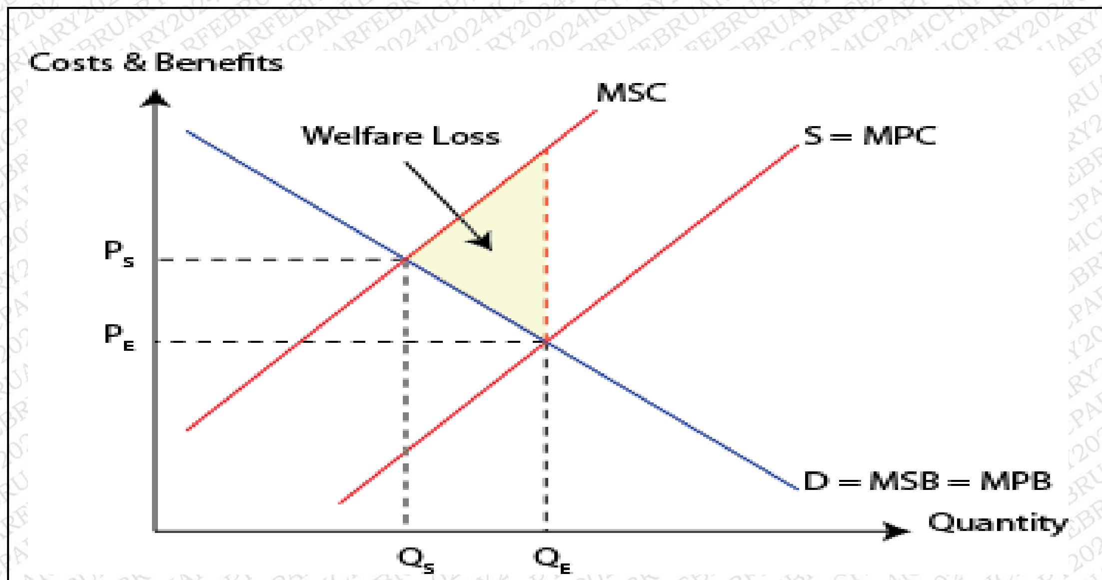
By specializing in the production of flowers, Rwanda will produce a huge quantity with available resources and afford to buy machinery it does produce from Netherlands. Both countries will benefit from this specialization by producing and sale of maximum output.

b. **Externalities** are also referred to as external costs and benefits refer to the costs or benefits of an economic activity experienced by an unrelated third party.

Air pollution, water pollution and noise pollution are part of negative externalities caused by factories while infrastructure development is a positive externality, we can expect from a cement factory.

Not all the costs of factors used in the production process are paid by the producer as private costs. Suppose, for example, that, during a dry summer, a farmer watered his crops with water pumped from a canal, and as a result, the canal level fell and it could no longer be used by waterway travellers. Unless the farmer paid compensation to the travellers, it is clear that they would be contributing to the costs of the farmer's production. Because these costs are being paid by people external to the production process, they are called "external costs".

Externalities diagram:



Where; **MPB:** Marginal private benefit, **MSB**: Marginal social benefit.

From the above illustration, the tourism industry will face negative externalities where marginal social costs (MSC) exceed marginal private cost (MPC), the shaded area represents welfare loss. The discharge of sewage in Mukungwa river will impose costs on Musanze's tourism industry in form of water pollution and this will be mitigated by the government imposing taxes and fines together with enforcing environment protection law.

From the above case of sewage discharge which destroyed fish species in Mukungwa river imposed a negative externality on Musanze's tourism industry.

QUESTION FOUR

Marking Guide

a)	The Total revenue, Total cost and profit functions	3
	Consumer's monthly income	2
	Graphical illustration of indifference curve and the budget line	3
	Clear interpretation of consumer utility maximization point	2
b)	Calculation of budget line and indifference curve points	2
	Clear graphical illustration	2
	Interpretation of the graphical illustration	2
c)	Utility approaches	
	The cardinal utility approach	2
	The ordinal approach	2
Total		**20**

Model Answers

a. **Information regarding Munyaneza bakery;**

Marginal revenue (MR)=100-0.02q Total revenue (TR) = $\int(100 - 0.02q \quad) \, d_q$

TR=100q-0.01q^2 AVC-baking division=10+0.01q

Total Variable cost (TVC)=AVC*q TVC=10q+0.01q^2

Total cost (TC)-baking division = **10q+0.01q^2+40,000****

Total cost (TC)-distribution division= (2+0.01q) *q+20,000

=**2q+0.01q^2+20,000****

The total cost of the bakery is given by: TC=(10q+0.01q^2+40,000) +(2q+0.01q^2+20,000)

TC=12q+0.02q^2+60,000 Let P be the profit for the bakery

P=TR-TC P= (100q-0.01q^2) - (12q+0.02q^2+60,000) P=88q-0.03q^2-60,000

$$\frac{dP}{dq} = (88q - 0.03q2 - 60{,}000)'$$

=88-0.06q q=88/0.06 units

Second order derivative to test if the function is less than zero:

(88-0.06q)'=-0.06 which is less than zero ****

Maximum profit=88(88/0.06)-0.03(88/0.06)^2-60,000

= 129,066.67- 64,533.33 -60,000

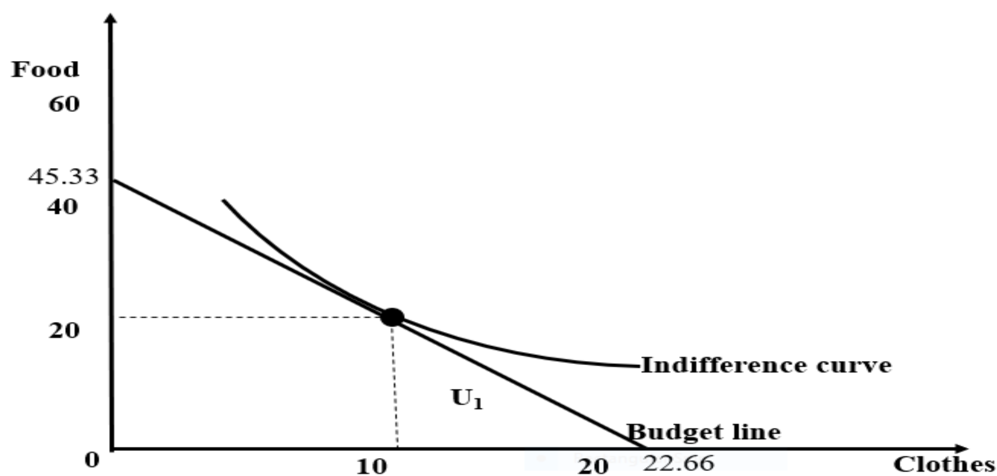
=FRW 4,533.34

Utility maximization point:

Monthly income= (4,533.34/2) Monthly income=FRW 2,266.67 Prices: food=50 clothes=100 spending ratio; 1:1 this ratio means that 50% will be spent on clothes and the other 50% of income spent on food.

Utility maximization point:
Food=1,133.335/50=22.67Units
Clothes=1,133.335/100=11.33 units
Data for budget line:
For food=2,266.67/50=45.33 units
For clothes=2,266.67/100=22.66 units

Graphical illustration:

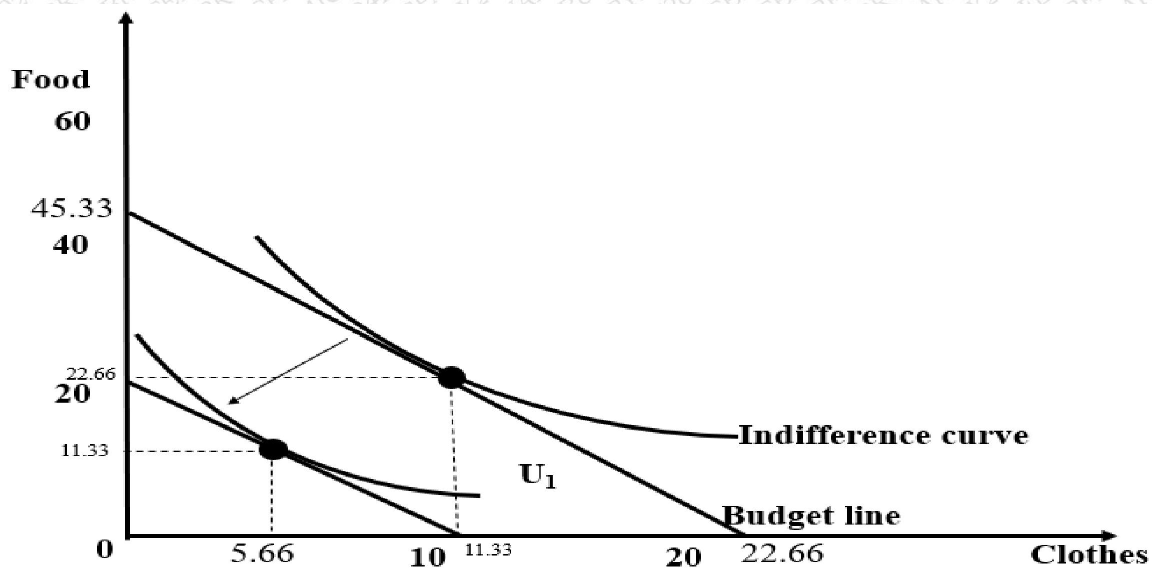


From the above graphical illustration, utility will be maximized at the point of tangency between the budget line and the highest possible indifference curve.

b. Effect of a decrease of 50% of income on consumer's utility maximization position

Monthly income = (2,266.67 /2) Monthly income = FRW 1,133.335
Prices: food = 50 clothes = 100 spending ratio; 1:1

Utility maximization point:
Food = 566.6675/50 = 11.33 Units
Clothes = 1,133.335/100 = 5.6667 units
Data for budget line:
For food = 1,133.335/50 = 22.66 units
For clothes = 1,133.335/100 = 11.33 units
Graphical illustration:



When the consumer's income drops by a half given the same ratio of spending, the consumer spends FRW 1,133.335 on the same amount of clothes. There will be a backward shift of the budget line and a lower level of utility maximization as expressed by the indifference curve.

c. Two approaches of measuring utility:

Utility refers to the total satisfaction that a consumer derives from the consumption of a commodity. It is the commodity's ability to satisfy human wants. There are two approaches to measuring utility, namely: the cardinal and ordinal approaches.

The cardinal utility approach states that utility is measured in units called utils, according to this approach, consumers can measure the satisfaction derived from the consumption of a commodity in terms of numbers. On the other hand, **the ordinal approach to utility** states that utility is not measured, but consumers can rank their preferences. This approach is sometimes called indifference curve approach.

QUESTION FIVE

Marking guide

Criteria	**Marks**
a. Formulation of TC, TR, MR, MC functions	4
Profit maximization condition (MR=MC)	2
Output to maximize profit(q=1 and q=4)	4
Graphical illustration showing the profit maximization situation	2
Each correct computation of maximum profit	2
Maximum marks	14
b. Four reasons behind the existence of small-scale firms alongside large-scale firms	
Personal contacts with customers	2
Activities requiring small scale firms	2
Inadequate market size	2
Any other valid reason	2
Maximum marks	6

Total **20**

Model answers

a. The factory's demand function is given by 2Q-180+4P=0 and its average cost function $2AC=2Q^2-16Q+114+4/Q$

Total Revenue (TR)=Price(P)*Quantity(Q) Or TR=Average revenue (AR)*Q

$2Q-180+4P=0$ $4P= -2Q+180$ $P=(-2Q+180)/4$ $P=-Q/2+45$

$TR=(-Q/2+45)Q$ **$TR=45Q-Q^2/2$*** Marginal revenue(MR)= dTR/dq

$MR=(45Q-Q^2/2)'$ **MR=45-Q *****

$2AC = 2Q^2 -16Q + 114 + 4/Q$ $AC = Q^2 - 8Q + 57 + 2/Q$ AC = Total cost (TC)=Average cost (AC)*Quantity(Q)

$TC= (Q^2 - 8Q + 57 + 2/Q)*Q$ **$TC = Q^3 - 8Q^2 + 57Q + 2$ ******

Marginal cost (MC) = DTC/DQ $MC=(Q^3-8Q^2+57Q+2)'$

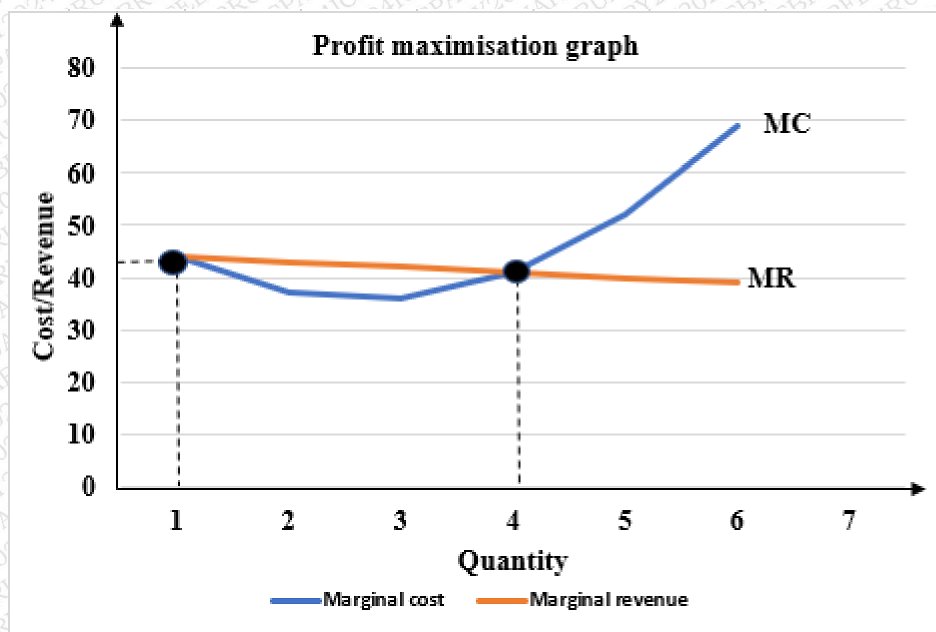
$MC=3Q^2-16Q+57$ ****

The profit is maximized when MC= MR, so:

$3Q^2 - 16Q + 57 = 45 - Q$ $3Q^2 -16Q + 57 – 45 + Q = 0$ $3Q^2 -15Q + 12 = 0$ Delta = b^2-4ac
Delta = $(-15)^2 - (4*3 *12)$ Delata = 225 - 144 Delta = 81

$_1= (-(-15)+9)/6$ **$Q_1=4$** $Q_2= (-(-15)-9)/6$ **$Q_2=1$**

Quantity	Marginal cost	Marginal revenue
1	**44**	**44**
2	37	43
3	36	42
4	**41**	**41**
5	52	40
6	69	39



$TR=45Q-Q^2/2$ $TC=Q^3-8Q^2+57Q+2$

Profit(P)=TR-TC $P=45Q-Q^2/2 - Q^3+8Q^2-57Q-2$ $P=-12Q-Q^3+15Q^2/2-2$

With q=1 $P=-12-1+(15/2)-2$ **P=-7.5*****

With q=4 $P= (180-8)-(64-128+228+2)$ **P=6*****

b. It is sometimes assumed that, because of economies of scale, large firms are always likely to be more efficient and to be able to produce at a lower cost than small firms. If this were true, small firms would be much less numerous than they are.

Despite the fact that large firms enjoy economies of scale, small firms survive alongside the large firms because of the following reasons:

✓ Activities requiring small scale firms: There are some activities which do not require large firms and for example shoe shining, hair dressing and many others.

✓ Inadequate market size: Where the market size is small, it necessitates the establishment of small firms

✓ Large firms tend to sell in bulk while small firms sell to customers in appropriate small quantities

✓ Personal contacts with customers: Owners of small firms can easily develop personal contacts with customers and they start selling on credit, in this case they maintain their market despite selling at a higher price.

✓ Small firms do not need to advertise extensively as large firms and hence they incur less costs.

✓ Small firms are easy to manage and this has a positive impact on the cost of production

✓ Most of the times small firms are located far from bigger firms for the sake of monopolizing the market and this gives them an advantage to sell at a higher price

QUESTION SIX

Marking guide

Criteria		**Marks**
a.	Demonstrated understanding of price control (Definition)	2
	Reasons for government intervention in Irish potatoes market	
	Maintaining Supply Stability	2
	Fixing a floor price	2
	Fixing a ceiling price	2
	Maximum marks	8
b.	Three arguments supporting the government intervention in markets	
	Protection of consumers	1.5
	Access to essential goods	1.5
	Inflation control	1.5
	Maximum marks	4.5
	Three arguments against the government intervention in markets	
	Shortages and black markets creation	1.5
	Reduced innovation and investment	1.5
	Suppliers loss and poor quality	1.5
	Any other valid argument earns 1.5 marks	1.5
	Maximum marks	
4.5		
c.	Three defects of unregulated	
	Inequalities of income	1
	Market power of some large suppliers	1
	Deficiencies in the supply of public goods	1
	Any other valid defect earns 1 mark	1
	Maximum marks	3
Total		**20**

Model answers

(a) If the price and quantity will always move to an equilibrium provided economic markets are left alone, there would not be any government intervention. Usually, prices are set by market forces (Where demand and supply meet).

In practice, there are several reasons, of which the Government intervene in markets to control the price. The government intervene in markets for price control.

Price control refers to the legal maximum or minimum prices set for some specific goods. In our case, The price control was fixed on Irish potatoes (Kinigi).

(i) **Fixing a ceiling price:** The government intervene to make Irish potatoes cheaper following a Social Unacceptability of a prevailing price: If the price resulting from an unregulated market were considered to be socially unacceptable, as causing hardship or conflict in the community, attempts might be made to control it. This could happen in a period of food shortage caused by war and/or climatic disasters. The price rise for Kinigi Irish potatoes was motivated by the increase in prices of other products due to the rise in fuel costs, large scale farmers of Kinigi Irish potatoes set higher prices at a level the society was crying for government intervention.

(ii) **Fixing a floor price:** The government intervene to make Irish potatoes expensive so that suppliers do not suffer from lower prices attempts might be made to maintain high prices if it was desired to raise the income of producers and their employees.
In quite similar cases, government intervene to set higher the price of Kinigi Irish potatoes where there is excess supply to prevent that suppliers(farmers) suffer.

(iii) **Maintaining Supply Stability**: Some markets are notoriously unstable because of unplanned variations in supply, caused by weather and other circumstances beyond the control of producers. In these cases, attempts may be made to control prices to ensure greater stability in the market. This is the same situation for Kinigi farmers. Their farm produce keeps on fluctuating depending on farming seasons. The control of Kinigi potatoes price discourages monopolies and gives a room to new competitors.

b. Three arguments supporting the government intervention in markets

(i) Protection of consumers: The government through Price controls can protect consumers from price gauging, a situation where suppliers set prices which are considered unfair.

(ii) Access to essential goods: Through price controls, low-income earners are given access to essential goods like water, electricity and transport services.

(iii) Inflation control: Government's initiative to control prices prevent inflation through preventing excessive price increase for goods and services

Three arguments against government intervention in markets

(i) Shortages and black markets creation: Price controls may create shortages of goods and services as suppliers are not motivated to produce at a lower price. This may lead to emergence of black markets where suppliers may opt to sell products at a higher price in unregulated market.

(ii) **Reduced innovation and investment:** Price control may discourage investors to innovate and invest in new technologies because the prices are not allowing them to recoup their investment.

(iii) Supplier's loss and poor quality: Price controls lead to losses for suppliers and drop in quality of goods and services.

c. In very many cases, unregulated markets and the price system are effective and efficient ways of allocating resources, however, some forms of well-meaning government interventions can actually make worthy social objectives more difficult to achieve. Nevertheless, this does not mean that unregulated markets are always perfect.

The existence of some defects is widely accepted and among the main problems are:

1) Inequalities of Income

One of the virtues claimed for the unregulated market is that it makes the consumer sovereign and that resource allocation responds to demand pressures. However, if we imagine that consumers influence allocation by votes cast when they buy or refrain from buying goods and services, we have to admit that some consumers have more votes than others and large numbers have very few votes.

Markets respond quickly to those groups which have the most purchasing power. This does not always ensure that resources are allocated in ways that meet the social expectations of the community.

Example: It has always been difficult to ensure that the poorest sections of the community are adequately housed. Normal commercial suppliers of houses are unwilling to meet this demand because the people concerned cannot afford to pay the full "economic costs" of housing, i.e., it is not usually possible to make a profit from providing housing for the poor. It is much more profitable to provide second homes for the wealthy. Only the State can intervene to improve housing for the poor

2) Market Power of Some Large Suppliers

Consumers are not always powerful through their votes. some markets are dominated by large firms. If such firms become very powerful, they can influence both supply and demand through controlling the goods allowed into the market and by heavy advertising.

Example: The sale of tobacco and alcohol, both are potentially dangerous to health and society but because of the power of the tobacco and alcohol producing companies, they are still being produced.

3) **Deficiencies in the Supply of Public Goods**

The market economy operates on the principle of self-interest. Consumers wish to maximize their own utility; producers their profit. In most cases this works to the public benefit but not

always. If it is in no one's interest to provide a community or public good, it will not be provided without the intervention of the government.

Example: Public sewers, public roads and transport, police and social services, even fire services, fall into this class. The community clearly needs these services but they cannot be provided by unregulated market.

QUESTION SEVEN

Marking guide

Criteria	**Marks**
a. Demonstrated understanding of monopoly situation for GCR	2
Probable reasons of GCR's sole existence on the market	
Control of an important factor of production	2
Legal licensing	2
Monopolies through economies of scale	2
Suppliers restriction practices	2
High initial capital	2
Any other valid reason earns 2 marks	2
Maximum marks	12
b. Allocate 1 mark for each valid merit or demerit	8
Total	**20**

Model answers

(a) Five reasons behind the sole existence of GCR for 29 years

The situation of sole existence of Gorilla Cement Rwanda (GCR) Ltd on Rwanda's cement market with restricted importation presents the case of monopoly. A monopoly is a market structure in which there is a single supplier selling a product which has no close substitutes and where there are barriers to entry such that other firms are excluded from producing the commodity.

Possible reasons for GCR sole existence (sources of monopoly) on the market:

1.Control of an important factor of production

There is a probability that GCR secured an exclusive 29 years license for important quarries of cement raw materials like pozzolana, clinker and limestone putting a barrier to new market entrants.

2. Legal licensing

The government may have come up with laws restricting competition into cement industry. Some large-scale manufacturers require government shield before setting up their capital-intensive factories in new markets.

3. Size of the market

The Rwandan cement market might have been low in the last 29 years so that it would not be served by more than one firm.

4.Monopolies through economies of scale

GCR as a big factory enjoyed economies of scale such that it becomes difficult for new factories to compete with it. The new firm may have higher average cost.

5.Suppliers restriction practices

GCR might have adopted restriction practices like selling at lower prices to discourage new entrants to force them out of the market.

6.Restriction of importation

According to the case study, all cement importations had been restricted for the past 29 years.

7.High initial capital

High initial capital required to start a business may give rise to monopoly power to the firm already in business.

b. Merits of GCR's existence as a monopolist

- Monopoly market structure provides an opportunity for large scale enterprises to enjoy economies of scale and this benefits the producer in terms of low cost of production.

- A monopolist may eliminate wasteful expenses such as adverts and promotion as there is no competition, this minimizes expenses.

- Monopoly protection policy might have protected GCR from facing unfair competition as exports and local competions were restricted.

- Accumulation of reserves as a result of pricing cement at the most profit generating price

- Monopoly power gives firms an incentive to firms to develop new technology

Demerits of GCR's existence as a monopolist to the consumers

- Exploitation of customers: Lack of competition pushes customers to buy low quality expensive products as there is no other option for comparison.

- A monopoly structure leads to unequal distribution of wealth since the monopolist becomes rich at the expense of consumers by earning abnormal profit.

- A monopolist underutilizes resources by not producing at optimal level. A monopolist may not be able to produce at a level where average cost is the lowest possible.

- Price discrimination is unavoidable in monopoly market structure. GCR would charge different prices to different groups of customers due to lack of competition.

- Unfair trade practices: In order to keep enjoying the benefits of monopoly, Monopolicy involves unfair practices which limit new market entrants and this also limits customers choice.

END OF MARKING GUIDE AND MODEL ANSWERS