



**CERTIFIED PUBLIC ACCOUNTANT
FOUNDATION LEVEL 2 EXAMINATIONS
F2.2: ECONOMICS AND THE BUSINESS
ENVIRONMENT**

DATE: THURSDAY 29, FEBRUARY 2024

INSTRUCTIONS:

1. **Time allowed: 3 hours 15 minutes** (15 minutes reading and 3 hours writing).
2. This examination has **seven questions** and only **five questions** should be attempted.
3. Marks allocated to each question are shown at the end of the question.
4. Show all your workings where necessary.
5. The question paper should not be taken out of the examination room.

QUESTION ONE

Uzima Farm Ltd (UFL) and Mugisha Farm Ltd (MFL) are the two largest chicken suppliers in Rwanda occupying 98% of the market. The two farms colluded to limit the production and hence push the price higher. This unlawfully price fixing resulted into both companies paying a fine of FRW 3,000,000 to the Consumers Protection Authority (CPA).

Despite the fine, both companies appreciated to have earned FRW 400,000,000 from this practice, contrary to the gain they would have achieved by working independently.

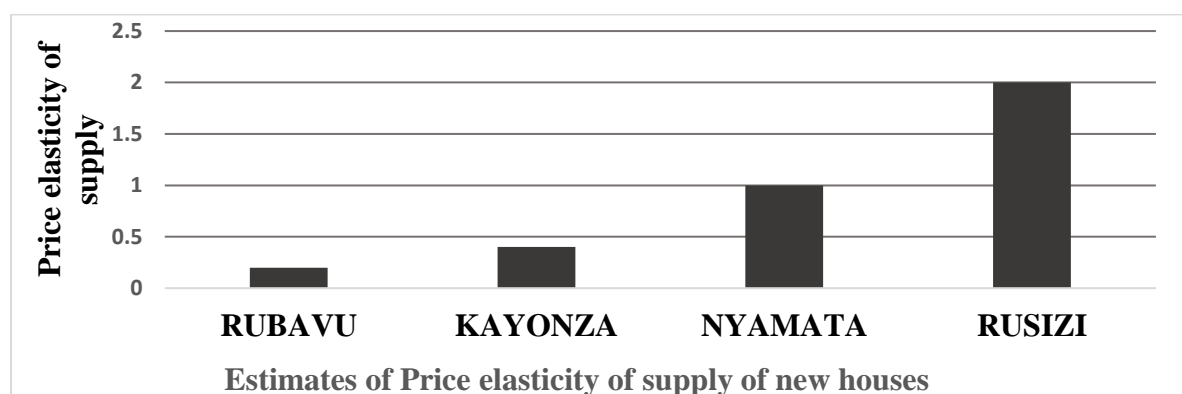
Required:

- (a) Explain any five factors likely to influence the demand of UFL and MFL chicken. (10 Marks)
- (b) Explain any five demerits of a free market system. (10 Marks)
- (Total: 20 Marks)**

QUESTION TWO

A group of 100 employees was sampled in research to determine the possibility of salaried personnel to own their first houses. Mr. Mugisha, one of the respondents highlighted that, it's extremely cumbersome for saving to own a house. Most of Rwanda's real estate developers require an upfront instalment of around 50% of the value of the property and the balance is paid in equal monthly instalments within the agreed timelines; to acquire an already built house. "Trying to construct your first house in the current environment, is like chasing a flying airplane; since even well salaried people who qualify for mortgages are discouraged by the 20% own contribution demanded by commercial banks" Said CPA Mutimucyeye, a Credit Officer at the Bank of Nyabugogo (BON). "In addition to different initiatives of availing affordable homes such as Giriwawe, we recommend the introduction of a new government initiative called "Home Nkunganire", where the government can facilitate all salaried citizens to afford houses that were built in line with Kigali city's master plan. Through this initiative, we propose that, a subsidy of 30% of the house value is paid to the real estate developer and the client pays the difference in favourable instalments", said Medical Doctor, Iribagiza.

Figure 1: Estimates of the price elasticity of supply for new built houses



Required:

- (a) **Interpret the above figures and explain any three reasons behind the possible differences in price elasticity of supply of new houses in different districts.** (8 Marks)
- (b) **With the aid of a graphical illustration, assess the likely impact of home Nkunganire scheme on the market of rented houses in Rwanda, once it is adopted.** (8 Marks)
- (c) **Explain any four limitations of consumer sovereignty theory.** (4 Marks)

(Total: 20 Marks)

QUESTION THREE

Rwanda's floriculture industry has grown significantly over the past years. According to the National Agricultural Export Development Board (NAEB) 2021-2022 agriculture exports performance report, an export of 1,130,243 kilograms of flowers earned the country USD 6,864,822 during the fiscal year of 2021/2022. The main export destinations of flowers from Rwanda are: Netherlands, Belgium and Germany. Rwanda's floriculture industry has three key advantages: being the area of high altitude with fair nights temperature; cheap labour; and maximum hours of sunlight, all favoring the growth of roses.

All of these three elements give Rwanda an absolute advantage over Netherlands, as it puts an end to the seasonal production. Netherlands is advantaged through advanced machinery and transport equipment not in cut roses.

Having been selected to be the flower park, Rwamagana is undergoing massive greenhouse construction projects, while Musanze is flourishing in tourism linked projects.

Recently, Musanze Brewery Ltd (MBL) was warned by the Environmental Management Authority (EMA) for illegal discharge of sewage in Mukungwa river, an incident that killed all fish species in the area of Buranga and Ngarama valley, one of the most visited parts of the river because of flowing Tilapia.

Required:

- (a) **Using a numerical and diagrammatic analysis, discuss how the concept of absolute advantage may lead to economic growth in Rwanda.** (10 Marks)
- (b) **With the aid of an externalities diagram, explain the likely impact of sewage discharge on Musanze tourism industry and highlight any three ways to mitigate imposed challenges.** (10 Marks)

(Total: 20 Marks)

QUESTION FOUR

Munyaneza operates a bakery in Gikondo where 50% of his business's monthly maximum profit, is his monthly income which must be spent entirely on food and clothing in the ratio of 1:1. The prices of food and clothing are FRW 50 and FRW 100 respectively. Munyaneza is satisfied with various combinations of two goods but prefers equal proportions of each good. Marginal Revenue (MR) for bread is given by: $MR=100 - 0.02q$ where q is the number of bread produced and sold. Bread passes through two divisions namely: the baking division and the distribution division for it to reach to a client. The average variable cost (AVC) per unit for baking and distribution divisions are $AVC = 10 + 0.01q$ and $AVC = 2 + 0.01q$ respectively. The fixed cost for baking division is FRW 40,000 while for distribution division is FRW 20,000.

Required:

- (a) With aid of a diagram, **determine the utility maximizing position of Munyaneza.** (10 Marks)
 - (b) **Illustrate the effect on the consumer's utility maximization position in (a) above if the level of consumer's income decreases by a half.** (6 Marks)
 - (c) **Differentiate two approaches of measuring utility.** (4 Marks)
- (Total: 20 Marks)**

QUESTION FIVE

Ingufu Cement Factory (ICF) Ltd deals in the production of cement in Rwanda where its most known brand is "Mbaraga 42.5". Cement manufacturing requires a capital-intensive technology which is one of the major challenges hindering new market entrants. The company sources Pozzolana from the Democratic Republic of Congo, Clinker from Republic of Burundi and limestone from Musanze district, among its raw materials.

The factory's demand function is given by $2Q - 180 + 4P = 0$ and its average cost function $AC = 2Q^2 - 16Q + 114 + 4/Q$ on the other hand, the average variable cost for Mata Cement Ltd, one of its competitors is given by $AVC=90+70q$ and its marginal revenue is given by $MR = 900 - 0.92q$.

Where; MR=Marginal Revenue AVC: Average Variable Cost AC: Average Cost P: Price
Q: Quantity.

Required:

- (a) With aid of a graphical illustration and mathematical calculations, **determine the level of output that will maximize ICF's profit and its corresponding maximum profit.** (14 Marks)
 - (b) **Explain any four reasons why small-scale firms survive alongside large firms enjoying economies of scale.** (6 Marks)
- (Total: 20 Marks)**

QUESTION SIX

Nyiramajyambere Anne is an Irish potatoes' specialized farmer living in Musanze district. Anne reports a heavy loss she faced in the year 2018 where her total production was sold at FRW 108 per kilograms due to excess supply, a situation that pushed Musanze large scale Irish potatoes farmers to form a cartel. On 19th April 2023, The Ministry of Trade and Industry made a reference to the law No36/2012 of 21/09/2012 relating to competition and consumer protection, which sets the maximum prices for consumer products, where the farm gate price of Irish potatoes was fixed at FRW 400 per kilogram of Kinigi variant and the retailing price fixed at FRW 460 per kilogram.

Required:

- (a) **Discuss any three reasons behind the government intervention in Irish potatoes market.** (8 Marks)
 - (b) **Discuss any three arguments for and three arguments against the government intervention in markets.** (9 Marks)
 - (c) **With clear examples, explain any three defects of unregulated markets.** (3 Marks)
- (Total: 20 Marks)**

QUESTION SEVEN

Gorilla cement Rwanda (GCR) Ltd celebrates 30 years of service on the Rwandan market. The company produces 500 tons of cement per day with a proportion of 30% being exported to the United Republic of Tanzania on a daily basis. During the recent annual general meeting of shareholders, the company's Board Chairperson unveiled to the shareholders a market shock that the company faced due to the arrival of new players: The Njia Cement Ltd and the Pricem Ltd. The certified external auditor's report for the year ended 31st December 2023 presents a 40% drop in net profit of GCR compared to the previous year of 2022; the last year serving as a monopoly and before cement importation restrictions.

Required:

- (a) **Discuss any five probable reasons behind the sole existence of GCR for the past 29 years.** (12 Marks)
 - (b) **Discuss any three merits on the side of GCR and five demerits on the side of Rwandan cement consumers of GCR's sole existence in the market.** (8 Marks)
- (Total: 20 Marks)**

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