**NAME\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ADM\_\_\_\_\_\_\_\_\_\_CLASS\_\_\_\_\_\_\_**

**MID TERM 2 2022 EXAM**

**AGRICULTURE FORM 4**

**TIME: 1 HOUR**

***Answer all questions (50 Marks)***

1. Below is a graphical representation of a law in agricultural economics. Study the graph carefully and answer the questions that follow.

 1200

 1000 Phase I Phase II Phase III

 800

 600

 400

 200

 0 20 40 60 90 100

 Fertilizer input (50kg bags)

 a) State the law illustrated by the graph (2mk)

 b) Explain how each additional unit of fertilizer input relates to the total output of maize in **Phases II and III. (**2mks)

 c) State the importance of the law identified in (I) above to the maize farmer (1mk)

2. Explain **five** factors that should be considered in farm planning. (10mks)

3. Give eight benefits of agroforestry (8mks)

4. The table below shows the population and gross domestic products of countries A and B

|  |  |  |
| --- | --- | --- |
| Country | Gross Domestic Product (Million Kshs)  | Country Population (Million) |
| A | 1800 | 36 |
| B | 1200 | 15 |

1. Calculate the per capita income for each country. Show your working (3mks)
2. Which of the two countries is more developed economically (1mk)
3. Give a reason for your answer in (b) above (1mk)
4. How can agriculture increase the gross domestic product of a country (1mk)

5. A farmer has 30 hectares of arable land, 20 hectares of which is planted with maize and 10hectares with grass hay. He wishes to replace 10hectares of maize with Irish potatoes next year. The fertilizer rate will have to be increased from 2 bags per hectare for maize to 4 bags per hectare for potatoes. As a result of the change extra 40 men days of actual labour per hectare will be necessary at the rate of Kshs.100 per man a day. The average yield per hectare of maize is 35bags and for potatoes 120bags.The price paid is Kshs.1, 000 per bag of maize and Kshs.600 per bag of potatoes. Maize seeds cost Kshs.750 per hectare and potatoes cost Kshs.800 per hectare. Fertilizer costs are 650 per hectare. Draw up a partial budget and advice the farmer accordingly. (10mks)

6. Describe the management practices that should be carried out on tree seedlings (10mks)