

**UNIVERSITY OF KABIANGA**

**UNIVERSITY EXAMINATIONS**

**2015/2016 ACADEMIC YEAR**

**FOURTH YEAR FIRST SEMESTER EXAMINATION**

**FOR THE DEGREE OF BACHELOR OF ARTS (ECONOMICS)**

**COURSE CODE: ECO 416**

**COURSE TITLE: AGRICULTURAL ECONOMICS I**

**DATE: 11TH DECEMBER, 2015**

**TIME: 2.00 P.M- 5.00 P.M**

**INSTRUCTIONS TO CANDIDATES:**

Answer question **ONE** and any other **THREE** questions.

**QUESTION ONE (25 MARKS)**

1. i. In relation to linear programming problem, explain the duality theorem. (3 marks)

ii. An agricultural-based firm has 4 different types of production processes producing components used in the production of product Q and product W. Process 1 and process 2 produces components for product Q while processes 3 and 4 produce components for product W. The resources required for producing these components are labour expressed in man-hours and raw materials; H and J. The table below gives the full technology and input restrictions.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Item** | **Component of product Q** | | **Component of product W** | | **Total available** |
|  | **Process 1** | **Process 2** | **Process 3** | **Process 4** |  |
| Man hour | 1 | 1 | 1 | 1 | 15 |
| Units of H | 7 | 5 | 3 | 2 | 120 |
| Units of J | 3 | 5 | 10 | 13 | 100 |
| Unit profit | 4 | 5 | 9 | 11 |  |

**Required;**

Using the information from the table, formulate a linear programming model. (6 marks)

1. Explain factors that make an economy not able to attain market efficiency. (6 marks)
2. Explain using PPF model the technical feasibility of a farm production unit. (4 marks)
3. Explain the different types of market integration. (6 marks)

**QUESTION TWO (15 MARKS)**

1. Describe the possible relationships that can exist between different farm enterprises. (6 marks)
2. Explain **three** approaches of marketing system. (9 marks)

**QUESTION THREE (15 MARKS)**

1. Assess the various sources of risk in the agricultural sector. (11 marks)
2. Give you understanding of:
3. Marketing margin. (2 marks)
4. Marketing cost. (2 marks)

**QUESTION FOUR (15 MARKS)**

1. Evaluate the influence of the various institutional operators in the marketing of agricultural products. (9 marks)
2. Explain the influence of market intelligence in the agricultural production. (6 marks)

**QUESTION FIVE (15 MARKS)**

1. Despite the important contributions made by the agricultural sector in an economy, food supply still remains a serious problem. Critically evaluate the causes of food insecurity in Kenya. (9 marks)
2. Give an assessment on the typical farm management decisions. (6 marks)

**QUESTION SIX (15 MARKS)**

1. Describe the characteristics that are common in the marketing of agricultural products. (8 marks)
2. Highlight any **seven** managerial problems that face small scale farmers. (7 marks)