



# MERU UNIVERSITY COLLEGE OF SCIENCE & TECHNOLOGY

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## University Examinations 2012/2013

FIRST YEAR, FIRST SEMESTER EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE  
IN HORTICULTURE, BACHELOR OF SCIENCE IN FOOD SCIENCE & TECHNOLOGY AND  
BACHELOR OF SCIENCE IN FOOD SCIENCE AND NUTRITION

### AHS 2101: INTRODUCTION TO AGRICULTURE AND AGROMETEOROLOGY

DATE: DECEMBER 2012

TIME: 2 HOURS

INSTRUCTIONS: Answer question *one* and any other *two* questions

#### QUESTION ONE – 30 MARKS

- (a) State and explain any three theories which lead populations to take up Agriculture. (6Marks)
- (b) (i) What is domestication as used in Agriculture. (2Marks)  
(ii) Differentiate between Primary and Secondary crops. (4Marks)
- (c) Explain the methods used for spreading crops from their centres of origin to their present day areas of production. (9Marks)
- (d) Human factors influence agriculture. Explain how the following human factors influence what is produced and the level of production.
- (i) Human diseases (1Mark)  
(ii) Traditions and beliefs (1Mark)  
(iii) Education (1Mark)
- (e) Explain how altitude affects agriculture. (6Marks)

#### QUESTION TWO – 20 MARKS

2. (a) Define the following terms:
- (i) Light compensation point. (2 Marks)  
(ii) Light day plants (LDP) (1 Mark)  
(iii) Photo Periodism (2 Marks)
- (b) Explain how high temperatures affect animals. (4Marks)
- (c) (i) Rainfall influences crop production. Explain. (6Marks)

- (ii) Explain the importance of PH to Crop Production. (5Marks)

**QUESTION THREE – 20 MARKS**

- 3 (a) Briefly explain how agriculture influences industrialization in a country. (3Marks)
- (b) (i) What is Green Revolution? (3Marks)
- (ii) Which initiatives did green revolution target in order to improve agricultural production? (4Marks)
- (c) State any five impacts of green revolution being experienced currently. (5Marks)
- (d) State any five ways by which domesticated crops differs from the wild relatives. (5Marks)

**QUESTION FOUR – 20 MARKS**

- (a) (i) What is sustainable agriculture? (3Marks)
- (ii) What are the four major components of sustainable agriculture? (4Marks)
- (b) Explain any five methods the current African governments can apply to improve agriculture production for such countries to be food secure. (8Marks)
- (c) Briefly explain how soil micro-organisms affects agriculture production. (5Marks)

**QUESTION FIVE – 20 MARKS)**

- (a) (i) What is Global Warming? (2Marks)
- (ii) What are the possible causes of Global Warming? (2Marks)
- (iii) Explain the various consequences of Global warming. (6Marks)
- (b) High temperatures affect Fish production. Explain (5Marks)
- (c) Explain various methods farmers can employ to minimise Air Pollution. (5Marks)