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University Examinations 2012/2013

YEAR ONE, SEMESTER ONE EXAMINATIONS FOR CERTIFICATE/DIPLOMA IN
AGRICULTURE

BIO 0110: AGRICULTURAL BOTANY

DATE: APRIL 2013

TIME: 1½HOURS

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

QUESTION ONE – (30 MARKS)

- a. Plants make their own food through the process of photosynthesis. Briefly explain the fate of the products of photosynthesis. (5 Marks)
- b. Outline the significance of transpiration. (4 Marks)
- c. State the functions of the following cell organelles. (3 Marks)
 - i. Ribosomes
 - ii. Chloroplasts
 - iii. Nucleus
- d. Distinguish between protandry and protogyny. (2 Marks)
- e. State the products of anaerobic respiration in: (4 Marks)
 - i. Plants
 - ii. Animals
- f. Explain the main causes of seed dormancy. (4 Marks)
- g. Describe what happens during dark reaction in photosynthesis. (4 Marks)
- h. State the role of water in seed germination. (4 Marks)

QUESTION TWO – 15 MARKS

Double fertilization is a unique feature in flowering plants. Discuss. (15 Marks)

QUESTION THREE – 15 MARKS

Explain the adaptations of the leaf to the process of photosynthesis. (15 Marks)

QUESTION FOUR – 15 MARKS

Describe how a plant cell is organized to its function. (15 Marks)

QUESTION FIVE – 15 MARKS

- a. Discuss the economic importance of anaerobic respiration. (10 Marks)
- b. Briefly describe the factors that affect water absorption in plants. (5 Marks)