



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

A. M. E. C. E. A

MAIN EXAMINATION

JANUARY – APRIL 2015 TRIMESTER

FACULTY OF SCIENCE

DEPARTMENT OF NATURAL SCIENCES (BIOLOGY)

REGULAR PROGRAMME

BIO 207: ETHNOBOTANY AND PHYTOCHEMISTRY

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Date: April 2015	Duration: 2 Hours
Instructions: Answer Question ONE and any other TWO Questions.	

- Q1. a) Mention THREE centers where agriculture is likely to have originated. **(3 marks)**
- b) Differentiate a mordant dye from a substantive dye. **(2 marks)**
- c) List any two commonly used mordants and their effects on the dye and fabric. **(2 marks)**
- d) Describe FIVE functions of gums extracted from plants. **(5 marks)**
- e) Define the term ethnobotany and list the aims of ethnobotany. **(3 marks)**
- f) Describe key parts of a seed and their functions. **(5 marks)**
- g) Describe any FOUR characteristics of domesticated plants. **(4 marks)**
- h) Genetically modified crops have been used since early 1990s, discuss six concerns associated with their use. **(6 marks)**
- Q2. a) Describe FIVE ways homoishydric plants can keep their water content constant and don't equilibrate with the environment. **(10 marks)**
- b) Discuss any FIVE phytochemicals mechanisms of action that facilitate secondary metabolites in their antimicrobial activities. **(10 marks)**
- Q3. a) Discuss FIVE factors that lead to variation in extraction method of phytochemicals. **(10 marks)**
- b) Write an essay on the role of five secondary metabolites in plants.

- Q4. a) Discuss any FIVE alkaloids and their effects on humans. (10 marks)
- b) Describe FIVE methods of drug evaluation. (10 marks)
- (10 marks)

END