



National Open University Of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
OCTOBER/NOVENBER, 2016 EXAMINATION

COURSE CODE: BIO 404

COURSE TITLE: SYSTEMATIC BIOLOGY

TIME ALLOWED: 2 Hours

INSTRUCTION: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER THREE QUESTIONS

1. (a) Define the term Biosystematics (3 marks)
(b) Discuss classification according to the following individuals:
 - i. Pedanius Dioscorides. (5 marks)
 - ii. Albert Magnus. (5 marks)(c) Describe the phases of development in Plant Taxonomy (12 marks)
2. (a) Outline the three major rules adopted by the International Botanical Congress of 1866 (3 marks)
(b) What do you understand by the term nomenclature (2 marks)
(c) Biosystematics as a discipline faces some Problems and challenges- Discuss (10 marks)
3. (a) Explain the term Speciation (3 marks)
(b) Write **short notes** on the following:
 - i. A Lectotype (4 marks)
 - ii. Palynology (4 marks)
 - iii. Paleobotany (4 marks)
4. (a) Distinguish between Classical taxonomy and experimental taxonomy (3 marks)
(b) Describe the test of characters in taxonomy (4 marks)
(c) Write **short notes** on the following:
 - i. National Herbaria (4 marks)
 - ii. International Herbaria (4 marks)
5. (a) List **five** functions of a herbarium (5 marks)
(b) Give a **detailed description** of the following methods of analysis steps in phytochemical procedures:
 - i. Separation (5 marks)
 - ii. Identification (5 marks)
6. (a) What is the importance of the study of evolutionary relationships? (2 marks)
(b) Give reasons why Linnaeus is well known today (3 marks)
(c) Outline the general instructions for herbarium users (10 marks)