



NATIONAL OPEN UNIVERSITY OF NIGERIA
PLOT 91, CADASTRAL ZONE, NNAMDI AZIKIWE EXPRESSWAY, JABI - ABUJA
FACULTY OF SCIENCE
Department of Biological Sciences
2023_1 POP EXAMINATION.

COURSE CODE: BIO404

COURSE TITLE: SYSTEMATICS BIOLOGY

CREDIT: 3 UNITS

TIME ALLOWED: 2½ HOURS

INSTRUCTION: ANSWER NUMBER ONE (1) AND ANY OTHER THREE (3) QUESTIONS

- 1a. State the three rules of taxonomy adopted by the International Code of Botanical Nomenclature in 1886 **(3 marks)**
- b. List the criteria that must be met before a name of a taxon can be validly published **(4 marks)**
- c. Outline the aims of classical taxonomy **(4 marks)**
- d. Write a short note on John Hutchinson as a taxonomist **(4 marks)**
- e. State the reasons why Linnaeus is most known today in taxonomy **(5 marks)**
- f. Discuss experimental taxonomy **(5 marks)**

- 2a. Enumerate the types of biosystematics relationships between plants **(4 marks)**
- b. Write comprehensively on Numerical Phenetics **(5 marks)**
- c. The International Code of Botanical Nomenclature (ICBN) is divided into three divisions. List the six principles that make up division 1 **(6 marks)**

- 3a. Discuss the preliterate human processes of taxonomy **(4 marks)**
- b. Write a comprehensive note on Geographical variation **(11 marks)**

- 4a. Discuss directional selection **(6 marks)**
- b. Give a detailed description of characters in systematic biology **(9 marks)**

- 5a. Explain what you understand by folk taxonomy. **(3 marks)**
- b. Mention the three Taxonomists involved in post Linnaeus period and three Taxonomists involved in International Phylogenetic System **(6 marks)**
- c. What are the unique obstacles faced by researchers in analysing apomixes? **(6 marks)**

- 6a. Write a short note on Biogeography **(6 marks)**
- b. Write a comprehensive note on Generic names. **(9 marks)**