



NATIONAL OPEN UNIVERSITY OF NIGERIA
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
JULY, 2017 EXAMINATION

COURSE CODE: BIO307

COURSE TITLE: EVOLUTION

CREDIT: 2 units

TIME ALLOWED: 2 Hours

INSTRUCTION: Answer question ONE (1) and any other THREE (3) questions

1. (a) i. Define genetic recombination. (2 marks)
ii. What do you understand by the term classification? (2 marks)
(b) Outline the major reasons for extinction. (5 marks)
(c) Enumerate the causes of spontaneous mutation. (4 marks)
(d) Explain how seeds have improved the adaptations of plants to living on land. (4 marks)
(e) Ecology and Evolution are considered sister disciplines of the life sciences. Discuss. (8 marks)
2. (a) Enumerate the harmful mutations. (7 marks)
(b) Write **short notes** on the following:
i. deleterious alleles (4 marks)
ii. fate of mutant alleles (4 marks)
3. Give a **detailed description** of any three fundamental processes governing population genetics. (15 marks)
4. (a) Define Biological Evolution. (3 marks)
(b) Write short notes on the following evidences of evolution:
i. Bio-geographical (4 marks)
ii. Bio-chemical (4 marks)
iii. Anatomical (4 marks)
5. (a) Outline the **five** probable stages involved in the origin of life. (5 marks)
(b) i. Explain the Concept of population genetics. (5 marks)
ii. Linkage is important in population genetics. Discuss. (5 marks)