



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
Department of Biological Sciences

2025_2 EXAMINATIONS

BIO307: Evolution

Time: 2 Hours

Credit Units: 2

Instruction: Attempt THREE (3) questions only. QUESTION 1 is compulsory

QUESTIONS

1. (a) Explain the term 'evolution' **(5 marks)**
(b) Outline six (6) significance of the isolation mechanism **(6 marks)**
(c) Enumerate the biogeographical evidence of Evolution **(5 marks)**
(d) Write an explanatory note on Epistasis **(4 marks)**
(e) In a tabular form, state five differences between prokaryotes and eukaryotes **(10 marks)**
2. (a) How does reproductive isolation affect evolution? **(6 marks)**
(b) List four (4) examples of variation **(4 marks)**
(c) Write a short note on sympatric speciation **(6 marks)**
(d) State two causes of spontaneous mutations **(4 marks)**
3. (a) Write short notes on the following
(i) Binomial Nomenclature **(5 marks)**
(ii) Geographical isolation **(5 marks)**
(iii) Medieval Evolution **(5 marks)**
(b) List the five (5) Kingdoms of Classification of living things **(5 marks)**
4. (a) Discuss flowers and fruits as an evolutionary adaptation in plants **(11 marks)**
(b) State the three (3) methods employed by experts in population genetics to pursue their goals **(3 marks)**
(c) List three (3) types of structural mutation with one example each **(6 marks)**
5. (a) How does genetic variation enhance evolution? **(5 marks)**
(b) Outline five (5) conditions that must be met if evolution is to occur **(5 marks)**
(c) Briefly explain the term Aneuploidy **(10 marks)**