



National Open University of Nigeria
Plot 91, Cadastral Zone, Nnamdi Azikiwe Expressway, Jabi - Abuja
Faculty of Science
Department of Pure and Applied Sciences
2021_2 EXAMINATION

COURSE CODE: BIO307
COURSE TITLE: EVOLUTION
CREDIT UNIT: 2
TIME ALLOWED: 2 HOURS

INSTRUCTION: ANSWER QUESTION 1 AND ANY OTHER THREE QUESTIONS

- 1(a) Highlight main features of biological naming – **4marks**
- (b) Give a concise explanation on Horizontal gene transfer (**4marks**)
- (c) The death of zygote and its non- viability of hybrids can affect post zygotic isolation. Discuss. **7Marks**
- (d) Gene flow is a form of evolution. Discuss **10 Marks**

- 2(a) Highlight the impact of beneficial mutation. **5marks**
- (b) Give a concise description of the mechanism of mutation (**10marks**)

- 3(a) Are mutation harmful? – Explain (**7marks**)
- (b) The proportion of all copies of a gene that is made up of a particular gene variant is called genetic frequency. Explain (**8marks**)

- 4(a) Enumerate any six (6) sources of uncertainty that can contribute to Random extinction (**6marks**)
- (b) Explain the genesis of population genetics (**9marks**)

- 5(a) Principles and theories have argued that certain conditions might hinder evolution. Enumerate these conditions (**6marks**)
- (b) Natural selection is a process of population genetics. Discuss (**9marks**)