



THE CATHOLIC UNIVERSITY OF EASTERN AFRICA

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MAIN EXAMINATION

AUGUST – DECEMBER 2018 TRIMESTER

FACULTY OF SCIENCE

DEPARTMENT OF BIOLOGY

REGULAR PROGRAMME

BIO 103: EVOLUTIONARY BIOLOGY

Date: DECEMBER 2018

Duration: 2 Hours

INSTRUCTIONS: Answer Question ONE and any other TWO Questions

- Q1. a) Describe the Darwin's concept of natural selection **6marks**
- b) Explain the factors that may bring about evolutionary changes in a population **10 marks**
- c) What factors may produce intensity of selection pressure in a population **6marks**
- d) What are the limitations of using fossils as evidence to support the evolutionary theory **6marks**
- e) What is cultural evolution **2marks**
- Q2. a) Describe EITHER special creation or spontaneous generation theory of origin of life **10marks**
- b) Relate the theory of natural selection to the dark and light colored moths **10 months**
- Q3. a) Discuss the Lamarks theory of evolution **10 marks**
- b) Describe the types of selection processes that occur in populations **10 marks**

- Q4. a) Using relevant examples, discuss the principal of adaptive radiation
10marks
- b) Describe comparative anatomy as an evidence for the theory of evolution
10marks
- Q5. a) what is an isolating mechanism?
5marks
- b) Describe *Dezhansky* classification of isolating mechanisms
15 marks

END