



(Knowledge for Development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR

FIRST YEAR 1ST SEMESTER
SUPPLEMENTARY/SPECIAL EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE
EDUCATION AND EXTENSION

COURSE CODE: ESM 111
COURSE TITLE: FUNDAMENTALS OF BIOLOGY

DATE: 4th October, 2018 **TIME:** 11:30-1:30 p.m.

INSTRUCTIONS TO CANDIDATES

Answer Question one (1) and any other two (2) Questions. Question one is compulsory and carries 30 marks, the other Questions carry 20 marks each.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

QUESTION 1

- a. State any three Concepts of Biology (3 Marks)
- b. Briefly explain the importance of the following terms as used in Biology
 - i. Environment (1 Mark)
 - ii. Energy (1 Mark)
 - iii. Matter (1 Mark)
- c. State the importance of any three macronutrients (3 Marks)
- d. State any three characteristics of invertebrates (3 Marks)
- e. State any three features of a body plan of an organisms (3 Marks)
- f. List any three significance of osmosis in plants (3 Marks)
- g. State any three differences between Photosynthesis and Respiration (3 Marks)
- h. Explain three animal Adaptation to environment (3 Marks)
- i. Briefly explain any three general characteristics of invertebrates (3 Marks)
- j. Explain the contributions of plants to the success of animals life (3 Marks)

QUESTION 2

Discuss the Levels of organization in multicellular organisms (20 Marks)

QUESTION 3

Discuss the economic importance of Algae (20 Marks)

QUESTION 4

Describe the differences between Artificial System and Natural System of classification of organisms (20 Marks)

QUESTION 5

Differentiate between the structure and components of Prokaryotic and eukaryotic cells (20 Marks)