



(Knowledge for Development)

100

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR

FIRST YEAR 1ST SEMESTER
MAIN EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF SCIENCE AGRICULTURE
EDUCATION AND EXTENSION

COURSE CODE: ESM 111
COURSE TITLE: FUNDAMENTALS OF BIOLOGY

DATE: 15th January 2018

TIME: 9:00 – 11:00 a.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. Define the following terms as used in Biology
 - i. Photosynthesis (1 Mark)
 - ii. Respiration (1 Mark)
 - iii. Transpiration (1 Mark)
- b. List three Properties of Life (3 Marks)
- c. Outline the roles of any three Micronutrients in plants (3 Marks)
- d. Describe two types of Plant tissues (3 Marks)
- e. Name any three main types of tissues in animals (3 Marks)
- f. Enumerate three basic forms of organism symmetry (3 Marks)
- g. State any three ways Plants adapt to extremes in the environment (3Marks)
- h. List any three economic importance of protozoa (3 Marks)
- i. State three general characteristics of Bryophytes (3 Marks)
- j. Elucidate three Characteristics of Vertebrates (3 Marks)

QUESTION 2

Citing examples discuss mechanisms of transport across the cell membrane (20 Marks)

QUESTION 3

Discuss the economic Importance of fungi (20 Marks)

QUESTION 4

Discuss the structure of a Plant cell (20 Marks)

QUESTION 5

Describe how various element deficiencies affect growth of plants (20 Marks)