



(Knowledge for Development)

KIBABII UNIVERSITY
UNIVERSITY EXAMINATIONS
2017/2018 ACADEMIC YEAR

SECOND YEAR FIRST SEMESTER
MAIN EXAMINATION

**FOR THE DEGREE OF BACHELOR OF SCIENCE BIOLOGY,
BACHELOR OF SCIENCE BIORESOURCE MANAGEMENT AND
CONSERVATION, BACHELOR OF AGRICULTURAL EDUCATION AND
EXTENSION AND BACHELOR OF EDUCATION SCIENCE.**

COURSE CODE: SZL 212

COURSE TITLE: INTRODUCTION TO ANIMAL PHYSIOLOGY

DATE: 11th January 2018.

TIME: 2:00 -4:00 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

1.a. Define the following:

- (i) Donnan equilibrium (2 marks)
- (ii) Refractory period (2 marks)
- (iii) Feedback mechanism (2 marks)
- (iv) Pernicious anemia (2 marks)
- (v) Homeostasis (2 marks)

b. Briefly describe the following:

- (i) Buffer system (3marks)
- (ii) Neuromuscular junction (3 marks)
- (iii) Nerve impulse. (2marks)

c. Explain the role of the vertebrate kidney in maintaining acid base balance. (4 marks)

d. Enumerate the salient features of biomembranes. (4 marks)

e. Explain the significance of eye lens in vision. (4 marks)

2. Describe the hormonal control of female reproduction. (20 marks)

3. Describe the structure of the human ear and the mechanism of hearing. (20 marks)

4. Discuss the biomedical significance of blood glucose level. (20 marks)

5. Describe the sliding filament mechanism of contraction in skeletal muscles. (20 marks)