



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**SECOND YEAR SECOND SEMESTER EXAMINATION
FOR THE DEGREE OF BACHELOR OF SCIENCE IN
ANIMAL SCIENCE WITH INFORMATION
TECHNOLOGY**

MAIN CAMPUS

**AAN 204: ENVIRONMENTAL PHYSIOLOGY, ETHOLOGY & ANIMAL
WELFARE**

Date: 9th June, 2017

Time: 12.00 - 3.00pm

INSTRUCTIONS:

- Answer ALL Questions



SECTION A: 30 MARKS

1. Define the following terminologies (4 marks)
- a) Ethology
 - b) Homeostasis
 - c) Ecophysiology
 - d) Animal welfare
-
2. Describe four ways in which heat stress is physiologically combated in the body (6 marks)
3. Briefly discuss the pathophysiology of hypothermia in animals (6 marks)
4. The hypothalamus controls important aspects of parenting and attachment behaviors, list the other functions of hypothalamus in mammals (4 marks)
-
5. Discuss the general principles of developing and evaluating animal welfare policies (6 marks)
-
6. Explain what is social defeat in ethology (4 marks)

SECTION B: 40 MARKS

7. Discuss the five animal freedoms also known as Brambell's five freedoms as adopted by the World Organisation for Animal Health (10 marks)
8. The environment can have major influences on animal physiology. Discuss the alterations in thermoregulation in the animal body due to outside stresses (10 marks)
9. Discuss the physiological and behavioural changes arising from increase in Fos-labeled cells in the anterior hypothalamic nucleus in animals (10 marks)
10. Acclimatization is the process in which an individual animal adjusts to a gradual change in its environment. Discuss the various ways in which animals acclimatize (10marks)
-