MASENO UNIVERSITY

UNIVERSITY EXAMINATIONS 2013/2014

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

(MAIN CAMPUS)

AAN 204: ENVIRONMENTAL PHYSIOLOGY, ETHOLOGY AND ANIMAL WELFARE

Date: *31st March, 2014* *Time:* *11.15am – 1.30pm*

INSTRUCTIONS:

- Attempt ALL questions.
- All questions carry marks as indicated.

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SECTION A:

1 A) Explain the influence of wind and altitude on the animal performance **(4 marks)**

B) pig is subjected to an abrupt cold shock for 5 minutes, explain the consequences of such shock (strain) **(3 marks)**

C) Name any four Stress hormones. **(2 marks)**

2 A) Animals require energy to do work which is lost in form of heat. Outline the trend of Energy flow from environment to end product utilization (3 marks)

B) Differentiate between acclimatization and acclimation (2 marks)

C) Explain the three major categories of adaptation (3 marks)

D) Briefly explain the role of central nervous system in Mechanisms of homeostasis (2 marks)

3. A) Define thermoneutral zone and state its characteristics (3 marks)

B) Define the lower critical temperature and outline why large ruminants have lower critical temperature **(4 marks)**

C) Using a general equation explain the importance of sunlight in animal skin **(2 marks)**

4. A) State the meaning of physical, physiological and psychological wellbeing of an animal **(3mks)**

   B) If your neighbor keeps many pets in his/her compound, is it a good animal welfare practice? **(3 marks)**

   C) Outline the general care of farm animals **(3 marks).**

   D) Explain the importance of studying ethology in animal science **(3 marks)**

SECTION B:

5. Define the livestock act and discuss the content of prevention of cruelty to animal acts **(13 marks)**

6. Outline the effect of the environmental temperature on reproduction of the female mammals and birds (7 marks)

7. Explain the model P =G +E, and elaborate the E component of the model extensively as used in animal production (10 marks)