

MAASAI MARA UNIVERSITY

**REGULAR UNIVERSITY EXAMINATIONS 2016/2017 ACADEMIC YEAR**

**FIRST YEAR FIRST SEMESTER**

**SCHOOL OF TOURISM AND NATURAL RESOURCE MANAGEMENT**

**BACHELOR OF SCIENCE ANIMAL HEALTH AND PRODUCTION**

**COURSE CODE: AHP 1102**

**COURSE TITLE: ANIMAL PHYSIOLOGY I**

**DATE: 23RD JANUARY 2017 TIME: 8.30AM - 11.30AM**

**INSTRUCTIONS TO CANDIDATES**

Answer **ALL** questions in section **A** and any other three in section **B**

***This paper consists of 2 printed pages. Please turn over***

**SECTION A (ANSWER ALL QUESTIONS)**

1. Define the following terms:
   1. Homeostasis **(1 MARK)**
   2. Autoregulation **(1 MARK)**
   3. Partial pressure **(1 MARK)**
   4. QRS wave **(1 MARK)**
   5. Exocrine secretion **(1 MARK)**
2. (a) State four (4) differences in the digestive system of a cat and a goat

**(4 MARK)**

(b) State the Frank-Starling law of the heart.  **(1 MARK)**

1. Briefly discus the cost benefits of endothermy versus ectothermy in animals. **(5 MARKS)**
2. (a) Describe briefly the filtration process and water conservation in the kidney.  **(3 MARKS)**

(b) State two (2) factors that influence ultrafiltration.  **(2 MARKS)**

1. (a) List three (3) types of chemical categories of hormones. **(3 MARKS)**

(b) State 2 (two) functions of the thyroid hormone. **(2 MARKS)**

**SECTION B (ANSWER ANY THREE (3) QUESTIONS)**

1. Discus the protein component of the cell membranes and its role in cellular transport  **(15 MARKS)**
2. Describe the physiological adaptations of camels that enable them to survive in arid environments. **(15 MARKS)**
3. Discus the unique differences in the mammalian and fish respiratory systems. **(15 MARKS)**
4. (a) Name five (5) sensory receptors. **(5 MARKS)**

(b) Discus the functions of any two (2) sensory receptors named in **Q. 9 (a)** above. **(10 MARKS)**

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