



**RAJARATA UNIVERSITY OF SRI LANKA
FACULTY OF APPLIED SCIENCES**

**B.Sc. (General) Degree in Applied Sciences
Second year – Semester I Examination – April /May 2016**

BIO 2209 – ANIMAL PHYSIOLOGY

Time: Two (2) hours

Answer **four (04)** questions only.

1. Describe the mechanism of skeletal muscle contraction emphasizing the role of Ca^{+2} ions in the above process.

100 marks

2. a) Define the two terms 'Acquired/Active immunity' and 'Passive immunity'.
b) Briefly outline the process of vaccine production.
c) Explain why it has been difficult to develop a vaccine for Human Immunodeficiency virus (HIV).

100 marks

3. a) Compare the structural and functional differences of non-ruminant and ruminant stomachs.
b) Describe the modifications shown by non ruminant herbivores for the digestion of cellulose in their digestive systems.

100 marks

4. Define "folliculogenesis". Explain the stages and the process of folliculogenesis in man with special reference to "follicle recruitment" and "gonadotrophin dependent follicular growth". Illustrate your answer with labelled diagrams.

100 marks

5. Write short notes on any three of the following.

- a) Transport of CO_2 in blood
b) Lymphatic system
c) Structure and functions of Pituitary Gland
d) Role of kidney in acid-base balance
e) Functions of the epididymis

100 marks