



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY
SCHOOL OF BIOLOGICAL, PHYSICAL, MATHEMATICS AND ACTUARIAL SCIENCES
UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
BIOLOGICAL SCIENCES
2nd YEAR 2nd SEMESTER 2022/2023 ACADEMIC YEAR
MAIN CAMPUS - REGULAR

COURSE CODE: SBB 1204
COURSE TITLE: ANIMAL PHYSIOLOGY II
EXAM VENUE: STREAM: (B.SC)
DATE: 19/12/2022 **EXAM SESSION:** 9.00-11.00AM
TIME: 2 HOURS

Instructions:

- 1. Answer ALL questions in Section A and Any two questions in Section B**
 - 2. Candidates are advised not to write on question paper**
 - 3. Candidates must hand in their answer booklets to the invigilator while in the examination room**
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SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)

1. Explain why enzymes are considered as functional units of metabolism (3 marks)
2. Describe components of a metabolic pathway (3 marks)
3. Describe any three modes of metabolic regulation (3 marks)
4. Describe any three differences between anaerobic and aerobic glycolysis (3 marks)
5. Explain how glycogenesis differs from gluconeogenesis (3 marks)
6. Describe the initial three key steps in β -oxidation (3 marks)
7. Describe how osmoregulators, maintain the osmolarity of their body fluids (3 marks)
8. State the importance of the posterior pituitary of the brain (3 marks)
9. State any three feedback loops in the anterior pituitary (3 marks)
10. Describe any three primary cytokine mediators (3 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Discuss any five genetic metabolic disorders (20 marks)
12. Discuss the role of enzymes in protein catabolism (20 marks)
13. Discuss mechanisms of osmoregulation (20 marks)
14. Discuss types of hormones secreted by the cells of the anterior pituitary (20 marks)