



MURANG'A UNIVERSITY COLLEGE

(A Constituent College of Jomo Kenyatta University of Agriculture and Technology)

DIPLOMA IN APPLIED BIOLOGY

SCHOOL OF PURE AND APPLIED SCIENCES

CLASS: AS/BIO/14D

COURSE CODE: ASB 13

ANATOMY AND PHYSIOLOGY

END OF STAGE EXAMINATION

DATE: 22ND JULY 2015

TIME: 3 HOURS

SECTION A (40 Marks)

1. State **four** functions of the liver (4 marks)
2. State the functions of saliva (4 marks)
3. Describe the role of the large intestine in the digestion of food (4 marks)
4. A leaf in a potted plant was covered with foil paper for 24 hours and then tested for starch. Describe how would test for starch and the results you would expect (4 marks)
5. State the functions of lipids (4 marks)
6. Describe the dark stage of photosynthesis. (4 marks)
7. Make an illustration of the gastric gland (4 marks)
8. Define the terms
 - i) Heterotrophic and autotrophic (2 marks)
 - ii) Commensalism and mutualism (2 marks)
9. Name the enzymes found in the ileum and the substrates they digest (4 marks)
10. State the adaptations of the leaf to its function (4 marks)

SECTION B(60 MARKS)

11. a) State the general functions of the following in the body
- i) Proteins (7 marks)
 - ii) Carbohydrates (7 marks)
 - iii) Fats (6 marks)
12. Outline the process of photophosphorylation (20 marks)
13. Outline the functions of the liver (20 marks)
- 14.a) Describe digestion in the ruminant (12 marks)
- b) Discuss how the carnivore is adapted to its mode of feeding (8 marks)
15. Describe the process of photosynthesis (20 marks)