



MACHAKOS UNIVERSITY

University Examinations 2016/2017

SCHOOL OF PURE AND APPLIED SCIENCES

DEPARTMENT OF BIOLOGICAL SCIENCES

THIRD YEAR FIRST SEMESTER EXAMINATION FOR BACHELOR OF SCIENCE

(BIOLOGY)

SZL 315: INTRODUCTION TO PARASITOLOGY

DATE:4/8/2017

TIME: 8.30-10.30AM

INSTRUCTIONS

Answer Question One and Any Other Two Questions

1.
 - a) Using examples, explain the aspects of the mammalian circulatory system that make it unsuitable for infestation by some groups of parasites (3 marks)
 - b) Explain any three aspects that define the vectorial capacity of insects with respect to disease transmission. (3 marks)
 - c) Define the following parasitological terms (3 marks)
 - i. Intermediate host
 - ii. Parasitism
 - iii. neoplasia
 - d) Appraise the suitability of the Reticuloendothelial system of man as an habitat for parasitic infestation (3 marks)
 - e) State three (3) parasites that may be found in the cerebrospinal fluid of a mammalian host and indicate their effects. (3 marks)
 - f) Identify the scientific names of any three ectoparasites and explain two benefits they derive from a mammalian host. (3 marks)

- g) Differentiate between Direct and Indirect transmission of disease (3 marks)
- h) Briefly outline three forms of abnormal behavior and growth of cells arising from infection by parasites (3 marks)
- i) Outline the structure of *Entamoeba histolytica* (3 marks)
- j) Trace the life cycle of the heteroxenous parasite *Cryptocotyle lingua* (3 marks)
2. a) Explain the immunological responses of man to an infection by the parasite *Trypanosoma brucei rhodesiense* (8 marks)
- b) Using specific examples, discuss the harmful effects caused by parasitic infection to a mammalian body (12 marks)
3. a) Define “parasite” (4 marks)
- b) Discuss the dependence of parasites on their hosts (16 marks)
4. Discuss the procedures carried out in a food processing factory to ensure quality and non-contamination by parasites of canned beef products (20 marks)
5. Discuss the various types of heterogenetic associations existing in the animal kingdom (20 marks)