



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY

SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES

**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN
BIOLOGICAL SCIENCES**

4th YEAR 2nd SEMESTER 2017/2018 ACADEMIC YEAR

MAIN CAMPUS - REGULAR

COURSE CODE: SBI 3443
COURSE TITLE: Parasitology
EXAM VENUE: STREAM: (BSC BIO)
DATE: EXAM SESSION:
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. Giving examples, describe three Plasmodium sporozoite proteins involved in motility and cell transversal. (3 marks)
2. Compare and contrast trogocytosis and phagocytosis of immune cells. (3 marks)
3. Describe innate immunity to leishmania. (3 marks)
4. Describe secondary immune responses against *Toxoplasma gondii*. (3 marks)
5. Outline the life cycle of *Taenia solium*. (3 marks)
6. Explain the role of macrophages in immunity to Schistosome eggs. (3 marks)
7. Giving example, describe the role of receptor capping in immune evasion strategies in parasites. (3 marks)
8. Describe how parasites evade the complement system and antibody attack. (3 marks)
9. Describe how parasites use cell surface decorations to evade host immunity. (3 marks)
10. Outline any three factors that determine the epidemiology of parasites. (3 marks)

SECTION B: ESSAY QUESTIONS (40 MARKS)

11. Describe the immune evasion during the pre-erythrocytic stages of *Plasmodium*. (20 marks)
12. With specific examples, describe immune response to *Entamoeba histolytica*. (20 marks)
13. Discuss human cysticercosis with respect to aetiology, pathogenesis, neuro-cysticercosis pathology and prevention. (20 marks)
14. Describe immunity to *Strongyloides stercoralis*. (20 marks)