



**JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE & TECHNOLOGY**  
**SCHOOL OF BIOLOGICAL AND PHYSICAL SCIENCES**  
**DEPARTMENT OF BIOLOGICAL SCIENCES**  
**UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF**  
**SCIENCE IN BIOLOGICAL SCIENCES**  
**THIRD YEAR FIRST SEMESTER 2018/2019 ACADEMIC YEAR**  
**MAIN CAMPUS - REGULAR**

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<b>COURSE CODE:</b>	<b>SBI 3318</b>
<b>COURSE TITLE:</b>	<b>PROTOZOOLOGY</b>
<b>EXAM VENUE:</b>	<b>STREAM: (BSC BIO)</b>
<b>DATE:</b>	<b>EXAM SESSION:</b>
<b>TIME: 2 HOURS</b>	

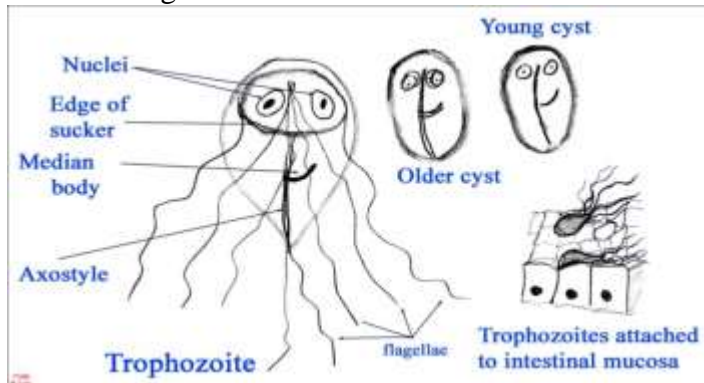
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**Instructions:**

- 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**

## **SECTION A: SHORT ANSWER QUESTIONS (30 MARKS)**

1. The diagram below illustrates the life stages of a protozoa parasite that causes a disease in human beings. Name the scientific name of the parasite, diseases caused and two drugs used for treatment (3 marks)



2. Describe the importance of a pellicle in protozoa (3 marks).
3. Explain why traditional classification of protozoa is a problematic area of taxonomy. (3 marks)
4. List three characteristics that qualify some protozoa species as parasites that transmit diseases (3 marks)
5. Distinguish between a definitive and intermediate host of protozoa parasites (3 marks)
6. Differentiate between *Babesia* and *Plasmodium* parasites based on their vectors, natural reservoirs and erythrocytic multiplications (3 marks)
7. Describe any three pathologies associated with *Trichomonas vaginalis* infection. (3 marks)
8. Outline three advantages of a secondary and tertiary host to protozoa parasites (3 marks)
9. Describe three mechanisms evolved by vertebrate hosts to reduce the risk of succumbing to protozoa infections (3 marks)
10. Name a protozoa parasite transmitted through sexual intercourse, insect bite, and contaminated food and water (3 marks)

## **SECTION B: ESSAY QUESTIONS (40 MARKS)**

11. Discuss the biology of *Entamoeba histolytica* under the following sub-headings (10 marks)
- (a) Body forms (10 marks)
- (b) Life cycle (10 marks)
12. Protozoa parasites and their hosts have evolved together over many millions of years. Describe adaptive strategies devised by the parasites to enhance survival inside and outside their hosts' body (20 marks)
13. Discuss various methods used to diagnose protozoa infections (20 marks)
14. Using specific examples, discuss the historical classification of protozoa into four major classes based on the means of locomotion (20 marks)