



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2016/2017

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF MASTER OF SCIENCE
(BIOCHEMISTRY/MEDICAL BIOCHEMISTRY)

SBC 803: BIOCHEMISTRY OF PROTOZOA

DATE: Wednesday, 10th May, 2017

TIME: 9.00 a.m. - 12.00 p.m.

INSTRUCTIONS:

SECTION A: *Answer all questions (5 marks each)*

- 1) Describe the different types of pathogenic mechanisms associated with parasitic diseases.
- 2) Outline the process of folate biosynthesis in protozoa parasites.
- 3) Describe the specific inhibitors of glycerophosphate oxidase complex in African trypanosomiasis.
- 4) Describe the different stages of malarial paroxysm.
- 5) Outline the pathway of polyamine biosynthesis in protozoa.
- 6) Explain the different methods used in collecting duodenal contents for diagnosis of *Giardiasis*.
- 7) Outline the key characteristic features of the haematolymphatic stage of African trypanosomiasis.
- 8) Describe the pathogenic changes associated with *Entamoeba histolytica* infection.

SECTION B: *Answer any **THREE** questions (20 marks each)*

- 1) Discuss any two energy metabolism special pathways found in protozoa parasites.
- 2) Discuss the pathogenesis, clinical manifestation, diagnosis, treatment and control of *Lieshmania* disease.
- 3) Discuss the characteristics and mode of action of three drugs available in the market that targets glycolytic enzymes of protozoa parasite.
- 4) Discuss different types of DNA based molecular techniques used to diagnose protozoa parasites in clinical specimens.