



**TECHNICAL UNIVERSITY OF MOMBASA**  
**FACULTY OF APPLIED AND HEALTH SCIENCES**

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**DEPARTMENT OF MEDICAL SCIENCES**

**UNIVERSITY EXAMINATION FOR:**

**MSC**

**5113: MOLECULAR PARASITOLOGY**

**END OF SEMESTER EXAMINATION**

**SERIES: APRIL 2016**

**TIME: 2 HOURS**

**DATE: 16 Apr 2016**

**Instructions to Candidates**

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **FIVE** Question(s). Attempt any **THREE** questions.

**Do not write on the question paper.**

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**Question ONE** Describe the pathogenesis of African Trypanomiasis

**Question TWO** a) Discuss the differences in pathology between the Rhodesian disease and the Gambian disease?

- b) What is the first symptom of infection with African trypanosomes?
- c) Why is it important to treat the disease prior to entry of the parasites into the CNS?
- d) Which type of trypanosomiasis would be difficult to diagnose early enough?
- d) Explain the phenomenon winterbottoms sign

**Question THREE** Explain the following terms as used in molecular parasitology

- a) Okazaki fragment
- b) Primer
- c) RNA
- d) mRNA
- e) tRNA

**Question FOUR** Discuss protein synthesis with emphasis on

- a) Replication
- b) Transcription
- c) Translation
- d) Splicing

**Question FIVE)**

- a) What are house keeping genes
- b) What are introns and what are their functions in protein synthesis
- c) What are proteomics
- d) What is the function of metabolomics