

**Answer question 1 from section A and one question from section B. Both section A and section B carry equal marks.**

**SECTION A (Answer question 1)**

1. Write short notes on EACH of the following:

A. The salient features of a trypanosomatid genome.

B. Three criteria that are used to select appropriate targets for drug discovery and why.

C. How are affinity chromatography and proteomics used for the design of diagnostics?

D. How do Plasmodium and Cryptosporidium resemble and differ from each other with regards to ALL of the following characteristics: Life cycle, population affected and organelles (at least 2 examples)? Provide descriptive examples as evidence of your comparisons.

**SECTION B (Answer one question)**

2. Discuss how target-based drug discovery is performed and the role of structural biology in this process.

3. Compare the mechanisms by which a named Apicomplexan and Kinetoplastid parasite evade the host immune response.

4. Describe the major components of the most advanced malaria vaccine. Evaluate the advantages and disadvantages of this strategy.

**End of paper**