



MASEHO UNIVERSITY
UNIVERSITY EXAMINATIONS 2013/2014

**THIRD YEAR SECOND SEMESTER EXAMINATIONS FOR THE
DEGREE OF BACHELOR OF SCIENCE MEDICAL LABORATORY
SCIENCE WITH INFORMATION TECHNOLOGY**

(MAIN CAMPUS)

PMT 322: MEDICAL MYCOLOGY

Date: 17th July 2014

Time: 11.00 - 1.00 pm

INSTRUCTIONS:

- Answer ALL questions in section A
- Answer question 11 and ANY OTHER question in section B



SECTION A (40 MARKS). Answer ALL the questions in this section.

1. Briefly describe systematic classification of fungi? (4 mks)
2. Differentiate between a yeast and a mould. (4 mks)
3. What are the cultural characteristics of *Blastomyces dermatitidis* on Sabouraud agar (or blood agar) without cycloheximide. (4 mks)
4. Briefly describe the procedure for specimen collection for diagnosis of mycetoma? (4 mks)
5. Briefly describe the germ tube test to identify *C. albicans* (4 mks)
6. Briefly describe the concept of de-scaling in the use of Fluconazole in the treatment of fungal infections. (4 mks)
7. Differentiate between primary and secondary antifungal resistance (4 mks)
8. Describe morphological versatility as a virulence factor of *Blastomyces dermatitidis* (4 mks)
9. Explain how alteration of yeast cell wall composition in *Histoplasma capsulatum* makes the fungus to persist within the phagolysosome of a macrophage and add to its pathogenicity. (4 mks)
10. Outline the treatment for *Cryptococcal meningitis* infection (4 mks)

SECTION B: Answer **TWO (2)** questions from this section. **Question 11 is compulsory** (Each question is 15 marks).

11. Discuss the chemical composition of the fungal cell wall. (15 mks)

12. Discuss laboratory diagnosis of dermatomycoses. (15 mks)

13. Discuss the use of cerebrospinal fluid in the detection of *Cryptococcus neoformans* (15 mks)