



JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY
SCHOOL OF HEALTH SCIENCES
UNIVERSITY EXAMINATION FOR DEGREE OF BACHELOR OF SCIENCE
PUBLIC & COMMUNITY HEALTH AND DEVELOPMENT
2ND YEAR 2ND SEMESTER 2023/2024 ACADEMIC YEAR
MAIN CAMPUS

COURSE CODE: HBB 9202

COURSE TITLE: MEDICAL MYCOLOGY

EXAM VENUE: STREAM:(BSc. Env. Hlth
Comm.HealthDvpt)

DATE: **EXAM SESSION:**

TIME: 2.00 HOURS

Instructions:

- 1. Answer all the questions in Section A each contain 3 marks and ANY other two questions in Section B each contain 20 marks.**
- 2. Candidates are advised not to write on the question paper.**
- 3. Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A- ANSWER ALL QUESTIONS (30 MARKS)

1. Immunocompromised persons are suffering from several fungal diseases. Which of the following is the least frequently associated
 - a. *Cryptococcus neoformans*
 - b. *Aspergillus fumigatus*
 - c. *Malassezia furfur*
 - d. *Mucor species*
2. Infection with dermatophyte is most often associated with
 - a. intravenous drug abuse
 - b. inhalation of the organism from contaminated bird feces
 - c. adherence of the organism to perspiration moist skin
 - d. fecal-oral transmission
3. Each of the following statements concerning *Candida albicans* is correct except
 - a. *C. albicans* is a budding yeast that forms pseudohyphae when it invades tissue
 - b. *C. albicans* causes thrush
 - c. *C. albicans* is transmitted primarily by respiratory aerosol
 - d. Impaired cell-mediated immunity is an important predisposing factor to disease
4. A girl who pricked her finger while pruning some rose bushes develops a local pustule that progresses to an ulcer. Several nodules then develop along the local lymphatic drainage. The most likely agent is
 - a. *Aspergillus fumigatus*
 - b. *Sporothrix schenckii*
 - c. *Cryptococcus neoformans*
 - d. *Candida albicans*
5. Which one of the following is not the characteristics of histoplasmosis
 - a. Person to person transmission
 - b. Specific geographic distribution
 - c. Yeasts in tissue
 - d. Mycelial phase in the soil
6. Explain briefly the dimorphic nature of fungi (3 marks)
7. Highlight **FOUR** modes of action of antifungals (4marks)
8. Briefly describe the general characteristics of fungi (4 marks)
9. Differentiate between true pathogenic infection and opportunistic infection and give an example in each case (4 marks)
10. Enumerate **FIVE** factors that can predispose one to fungal infections (5 marks)

SECTION B- ANSWER ANY TWO QUESTIONS (40 MARKS)

1. Discuss the clinical classification of fungal infections and give examples of diseases caused by them (20 marks)
 2. Discuss candidiasis as an opportunistic mycosis using the following headings. (20 marks)
 - i. Causative Agent and Epidemiology
 - ii. Pathogenesis
 - iii. Laboratory diagnosis
 - iv. Risk factors
 - v. Management and prevention
 3. Discuss the methods used in laboratory diagnosis of fungi (20 marks)
 4. Individuals living in crowded areas such as a boarding school are at risk of acquiring cutaneous mycoses.
 - a. Discuss **THREE** likely cutaneous mycoses they are at risk of acquiring, giving the clinical manifestation of each (9 marks)
 - b. Discuss other risk factors these individuals are exposed to (5 marks)
- As a public health officer/educationist, discuss the strategies you would take to prevent/control the cutaneous mycoses. (6marks)