



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE (MEDICAL LABORATORY SCIENCE)

HML 209: MYCOLOGY

DATE: MONDAY, 26TH MARCH 2012

TIME: 11.00 A.M. – 1.00 P.M.

Section A: Answer ALL questions (5 marks each)

1. What are yeasts and moulds (5mks)
2. Briefly discuss the specific factors that increases fungal virulence (5mks)
3. Briefly describe the collection of hair, skin and nails for fungal analysis (5mks)

Section B: Answer only ONE question (20 marks)

4. a) Describe the clinical presentation of *Malassezia furfur* infection (8mks)
c) Discuss sporotrichosis infection (12mks)
5. a) Discuss aflatoxicosis (10mks)
b) Describe pulmonary cryptococcosis (10mks)

Section C: Answer ALL questions by circling the correct answer (½ mark each)

1. The following statements are true about fungi except?
 - a) They are saprophytic
 - b) They are parasitic
 - c) They are commensals
 - d) Majority of them are not obligate aerobes
2. Which one of the following is not among the moulds of medical importance?
 - a) Dermatophytes
 - b) Zygomycetes
 - c) *Aspergillus* species
 - d) *Trichosporon beigilli*
3. Which one of the following disease is not a systemic mycosis infection.
 - a) *Malassazia furfur* infection
 - b) Histoplasmosis
 - c) Blastomycosis
 - d) Paracoccidioidomycosis.
4. Which one of the following is not true about dermatophytosis:-
 - a) It is an infection of the skin and nails
 - b) It invades the living tissue
 - c) Metabolic products causes allergy
 - d) It uses an enzyme keratinase

5. Tinea unguium affects?
 - a) The nails
 - b) The nails
 - c) The skin
 - d) The scalp
6. How can chromoblastomycosis be managed?
 - a) Surgical excision of the infected tissue
 - b) Administration of flucytosine
 - c) Administration of Terbinafine
 - d) By use of shampoo
7. Which one is not true about phaeohyphomycosis
 - a) An infection of human as lower animals
 - b) Caused by dematiaceous mycelial agents
 - c) It occurs true traumatic implantation of the fungi
 - d) It is an infection of the hair
8. Which is the causative agent of mycotic mycetoma?
 - a) *Fusarium*
 - b) *Tinea pedis*
 - c) *Phialophora*
 - d) *Wangiella*
9. *Loboa loboi* causes
 - a) Hypholobomyiosis
 - b) Lobomycosis
 - c) Zygomycosis
 - d) Phaeohyphomycosis
10. The following are clinical material/specimen used for laboratory diagnosis of histoplasmosis except
 - a) Sputum
 - b) Skin scrapings
 - c) Urine
 - d) Nails
11. Which one of the following is true about deep mycosis:
 - a) The pathogen enter through inhalation of conidia
 - b) The primary site is usually the nose.
 - c) Caused by trauma implantation
 - d) None of the above.
12. *Mallassezia furfur* is:-
 - a) Mould
 - b) Yeast like
 - c) Both mould and yeast
 - d) All are correct about *M. furfur*

13. Spores are not:-
- a) Multicellular cells
 - b) Reproductive cells
 - c) Contained in the sporangium
 - d) Formed at the top of supporting hyphae
14. Fungi can be divided into the following except:-
- a) Yeast
 - b) Moulds
 - c) Dimorphic fungi
 - d) Conidia
15. The following are the factors that contribute to the high prevalence of fungal infection in the tropical countries except?
- a) Heat
 - b) Humidity
 - c) Malnutrition
 - d) High fertility
16. Which of the following is a predisposing feature of acute invasive pulmonary Aspergillosis?
- a) Prolonged neutropenia
 - b) Mycotoxicosis
 - c) Allergy
 - d) Peripheral eosinophilia
17. The following are the predisposing factors of opportunistic mycoses except?
- a) Post transplantation chemotherapy
 - b) Walking bare footed
 - c) Poverty
 - d) Hydrolytic enzymes
18. In laboratory diagnosis of cryptococcosis, direct microscopy is used to demonstrate?
- a) Encapsulated yeast cells
 - b) Filaments
 - c) Dematiaceous fragments
 - d) None of the above
19. *M. furfur* is easily recognized in
- a) KOH preparation of skin scrapping
 - b) Culture
 - c) Through serology techniques
 - d) None of the above
20. The following are predisposing factors of pulmonary zygomycosis except?
- a) Hematological malignances
 - b) Severe neutropenia
 - c) Diabetes
 - d) TB

21. Oesophageal candidiasis is associated with
- a) Leukemia
 - b) Use of broad spectrum antibiotics
 - c) IV catheterization
 - d) None of the above
22. Endothrix is-----
- a) Infection outside the hair shaft
 - b) Infection inside the hair shaft
 - c) Infection of the hair follicle
 - d) None of the above
23. Why superficial mycoses are called cosmetic mycoses?
- a) Observes as spot
 - b) Attach the surface of the skin
 - c) No scratching
 - d) None of the above
24. Why most of the fungal infections are mild and self limited?
- a) High level of innate immunity
 - b) They are saprophytic
 - c) Fungi are less infective
 - d) None of the above
25. What is the key characteristic of osteoporosis sporotrichosis?
- a) Stiffness and pain in large joint
 - b) Haemoptysis
 - c) Cough
 - d) None of the above
26. The net work of hyphae is called
- a) Yeast
 - b) Conidia
 - c) Mycelium
 - d) Pseudohyphae
27. Fungi are said to be achlorophyllus, meaning?
- a) They have chlorophyll
 - b) They lack chlorophyll
 - c) Chemo-organotrophic
 - d) None of the above
28. Elongated budding cells often link together to form branching chains called----
- a) Mycelium
 - b) Pseudohyphae
 - c) Conidiophore
 - d) None of the above

29. Aflatoxins are products of the fungal of the genus-----

- a) *Aspergillus*
- b) *Cryptococcus*
- c) *A. flavus*
- d) None of the above

30. The following are metabolites of aflatoxins except?

- a) A. B1
- b) A. B2
- c) A. M1
- d) Aflatoxin B and G
