



**TECHNICAL UNIVERSITY OF MOMBASA**

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**FACULTY OF APPLIED AND HEALTH SCIENCES**

**DEPARTMENT OF MEDICAL SCIENCES**

**UNIVERSITY EXAMINATION FOR:**

**DEGREE**

**AML 4307 : MEDICAL MYCOLOGY**

**SPECIAL/ SUPPLIMENTARY EXAMINATIONS**

**SERIES: SEPTEMBER 2018**

**TIME: 2 HOURS**

**DATE:** Pick Date Sep 2018

**Instructions to Candidates**

You should have the following for this examination

-Answer Booklet, examination pass and student ID

This paper consists of **TWO** Section(s). Attempt ALL questions.

**Circle the correct answer in section A.**

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Section A

1. Which of the following fungi is nutritious?

- a) *Aminata* species
- b) *Trichophyton* species
- c) *Claviceps purpurea*
- d) *Agaricis bisporus*
- e) *Fusarium moniliforme*

2. The following statements on *Candida albicans* are true except

- a) It is Gram negative
- b) Pregnant women are susceptible
- c) It is normal flora
- d) It is Gram positive
- e) It can be isolated in the laboratory

3. The function of 2% agar in fungal media is \_\_\_\_\_
- a) Allow growth of molds
  - b) To soften the medium
  - c) To act as an inhibitor for bacteria
  - d) To provide nutrients
  - e) To solidify media
4. Sporotrichosis can be caused \_\_\_\_\_
- a) Inhalation
  - b) Consumption of contaminated food
  - c) Skin contact
  - d) Sexual transmission
  - e) a thorn prick
5. Ability of fungi to grow at 37°C is called \_\_\_\_\_
- a) Thermotolerance
  - b) Dimorphism
  - c) fungal pathogenicity
  - d) Life cycle
  - e) sporulation
6. Which of the following structure is detected by Indian Ink staining technique?
- a) Mycelium
  - b) Hyphae
  - c) Germ tube
  - d) Capsule
  - e) spores
7. Zygospore is a thick spore which is \_\_\_\_\_
- a) Budding
  - b) Asexually by fragmentation
  - c) Sexually produced by the fusion of two hyphae
  - d) Produced by Ascomycetes
  - e) Motile
8. Production of keratinase is important for the following infection \_\_\_\_\_
- a) Lungs
  - b) Skin
  - c) bones
  - d) blood vessels
  - e) Vaginal membrane

9. Waste of caged parrots can be a good source for the transmission of \_\_\_\_\_
- a) *Pneumocystis carinii*
  - b) *Candida albicans*
  - c) *Coccidioides immitis*
  - d) *Rhizopus oryzae*.
  - e) *Penicillium species*
10. Fungi and plant cell share the following structures except
- a) Enclosed nucleus
  - b) Mitochondria
  - c) Chloroplast
  - d) Cell wall
  - e) Cytoplasm
11. 1. Which one of the following fungi is a normal vaginal flora?
- a) *Fusarium*
  - b) *Aspergillus*
  - c) *Candida*
  - d) *Lactobacillus*
  - e) *Mobilincus vaginalis*
12. The following are predisposing factors for fungal infection except \_\_\_\_\_
- a) HIV status
  - b) Kidney failure
  - c) Malaria
  - d) Prolonged use of antibiotics
  - e) Diabetes
13. Which one of the following enzymes is associated with infection of the nails?
- a) Collagenase
  - b) mutase
  - c) lipase
  - d) Keratinase
  - e) gelatinase
14. Antifungal treatment is usually given before laboratory confirmation mainly because of the following reason
- a) It is dangerous to culture fungi
  - b) Fungi produce spores
  - c) Mycological media are expensive
  - d) Special incubators are required for fungal cultures
  - e) Isolation and identification of fungi may take several weeks

15. Network of fungal hyphae is called\_\_\_\_\_

- a) Haustorium
- b) Mycelia
- c) Rhizoid
- d) Colony
- e) Coenocytic hyphae

16. The first antibiotic to be discovered was obtained from\_\_\_\_\_

- a) *Cephalosporium*
- b) *Alterneria*
- c) *Neurospora*
- d) *Penicillium*
- e) *Aspergillus*

17. All of the following statements are true about mycotoxins except that the toxins\_\_\_\_\_

- a) are heat sensitive
- b) Can be detected in animal feed
- c) Are produced by members of the deuteromycetes
- d) Can cause liver disease
- e) Are not produced by all known fungal species

18. Motile fungal spores are characteristically produced by

- a) Chytridiomycota
- b) Basidiomycota
- c) Zygomycota
- d) Ascomycota
- e) Deuteromycota

19. Which one of the following fungal disease is the most debilitating and disfigures facial appearance of the patient?

- a) Tinea
- b) Aspergilloma
- c) Blastomycosis
- d) Zygomycosis
- e) Madurella

20. Pneumonia caused by the following fungi cannot be treated with antifungal drugs \_\_\_\_\_
- a) *Cryptococcus neoformans*
  - b) *Pneumocystis carinii*
  - c) *Histoplasma capsulatum*
  - d) *Aspergillus* species
  - e) *Legionella mikdadi*
21. The most poisonous fungi which may be confused with mushrooms is \_\_\_\_\_
- a) *Agaricus bisporus*
  - b) *Candida albicans*
  - c) *Aspergillus niger*
  - d) *Saccharomyces cerevesiae*
  - e) *Aminata phalloides*
22. Which of the following body system is affected by zearalenone?
- a) Immune
  - b) Respiratory
  - c) Digestive
  - d) Nervous
  - e) Reproductive
23. Which of the following fungi is commercially cultivated for food?
- a) *Aminata* species
  - b) *Agaricis bisporus*
  - c) *Claviceps purpurea*
  - d) *Fusarium moniliforme*
  - e) *Trichophyton* species
24. Bird seed agar media is used in isolation of the following fungi
- a) *Candida tropicalis*
  - b) *Candida albicans*
  - c) *Cryptococcus neoformans*
  - d) *Coccididis immitis*
  - e) *Mucor*
25. A thick spore which is sexually produced by the fusion of two hyphae \_\_\_\_\_
- a) Asci
  - b) zygospores
  - c) basidiospores
  - d) Arthrospores
  - e) Sporangiospores

26. Production of keratinase is important for the following infection \_\_\_\_\_

- a) *Peumocystis carinii* pneumonia
- b) Oral thrush
- c) fungemia
- d) Onchomycosis
- e) aspergilloma

27. Which of the following fungi cause pneumonia in persons with low CD4 counts?

- a) *Cryptococcus neoformans*
- b) *Histoplasma capsulatum*
- c) *Aspergillus species*
- d) *Absidia species*
- e) *Pneumocystis carinii*

28. One gene –one enzyme concept was developed through studies of the following fungi

- a) *Cephalosporium*
- b) *Neurospora*
- c) *Alterneria*
- d) *Penicillium*
- e) *Aspergillus*

29. All of the following statements are true about common molds except that

- a) Produce spores
- b) Can cause mycosis
- c) Grow faster than most fungi under laboratory conditions
- d) Can cause liver disease
- e) Do not produce mycotoxins

30. Chytridiomycota produce the following spores

- a) Arhtrospores
- b) Conidia
- c) Zygo spores
- d) Zoospores
- e) Basidiospores

Section B

- 31.
- a) Discuss in brief nutritional and environmental requirements for culturing fungi (10 Marks)
  - b) Describe the tests carried for sensitivity of antifungal drugs (10 Marks)
- 32.
- a) Discuss mycosis in details under classification and epidemiology (20 Marks)