



UNIVERSITY EXAMINATIONS

FIRST YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR OF SCIENCE IN NURSING THIRD SEMESTER, 2023/2024

NUR 122: MEDICAL MICROBIOLOGY 11

STREAM: Y1S3

TIME: 3 HOURS

DAY: MONDAY, 9.00AM-12.00PM

DATE:22/07/2024

INSTRUCTIONS

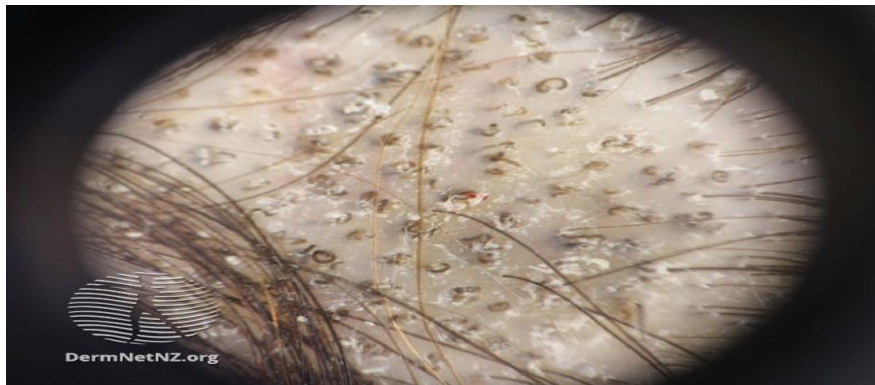
- 1. Do not write anything on this question paper.***
- 2. Answer all questions in both sections A, B and C.***

SECTION A:(20 MARKS)-ANSWER ALL QUESTIONS FROM THIS SECTION

1. The following explains dimorphism in fungi:
 - a) Unicellular yeast cells
 - b) Mycelial and yeast like growth forms
 - c) Mould growth characteristic
 - d) Mycelial growth
2. Phaeoid fungi are characterized by:
 - a) Melanin pigments in the cell wall
 - b) Hyaline in the cell wall
 - c) Sporangia at the sporangiophore
 - d) Absence of any pigment in the cell wall

3. Nodular organ hyphae contain the following specialized structures:
 - a. Regular enlargement at one end of each segment
 - b. spirally coiled hyphae
 - c. Enlargement in the mycelium
 - d. Unilateral projections from the hyphae

4. One of the following fungal species is not associated with the fungal infection shown below:



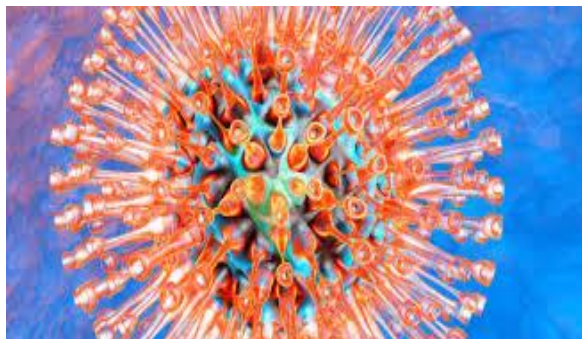
- a. *Epidermophyton floccosum*
 - b. *Microsporum canis*
 - c. *Cryptococcus neoformans*
 - d. *Trichophyton rubrum*

5. is not antifungal agent for systemic mycoses:
 - a. Ketoconazole
 - b. Gentomycin
 - c. Clotrimazole
 - d. Miconazole

6. ____ is a stain usually used in staining fungal infected human tissue:
 - a. Giemsa's stain
 - b. Calcofluor
 - c. Periodic Acid-Schiff stain (PAS)
 - d. Gram stain

7. Keloidal, verrucoid nodular lesions in the sub-epidermal part of the skin are associated with:
- Lacazia loboi infection
 - Acremonium sp.* infection
 - Madurella sp.* infection
 - Rhinosporidium seeberi* infection
8. One of the following Zygomycosis is manifested by nasal bleeding:
- Pulmonary zygomycosis
 - Gastrointestinal zygomycosis
 - Cutaneous zygomycosis
 - Zygomycosis
9. ____Is the common mode of *Coccidioides sp.* transmission:
- Ingestion of mycelial agents
 - Inhalation of arthroconidia
 - Ingestion of arthroconidia
 - Contact with infected surface
10. Histoplasmosis is best treated with:
- Penicillin
 - Corticosteroids and azoles
 - Pasiconazole only
 - Surgical removal
11.is not a causative agent of fungal Mycetoma:
- Fusarium sp.*
 - Aspergillus sp.*
 - Candida sp.*
 - Madurella sp.*
12. ____Is a mode of viral transmission from the maternal body to the foetal body:
- Mechanical transmission
 - Human to human transmission
 - Vector transmission
 - Vertical transmission

13. Dengue fever virus infection manifest mainly through:
- a) Diarrhoea
 - b) convulsions
 - c) jaundice
 - d) Haemorrhage
14. _____Is a vector for yellow fever virus:
- a) *Aedes aegypti*
 - b) *Culex tarsalis*
 - c) *Phlebotomus papatasi*
 - d) *Culex theileri*
15. One of the following viruses manifest through pockmarks on the skin:
- a) Dengue fever virus
 - b) Smallpox virus
 - c) Measles virus
 - d) Mumps virus
16. The sketch below is of a viral particle that targets the CNS, identify the virus



- a) Polio virus
- b) Herpes simplex virus
- c) Hepatitis B virus
- d) Rabies virus

17. One of the following is not a method of Hepatitis B virus transmission :
- a) Sexual intercourse with infected person
 - b) Transfusion of contaminated blood
 - c) Mosquito bite
 - d) Sharing contaminated scalpels
18. The presence of anogenital, cutaneous warts and oral papillomatosis indicate infection by:
- a) Human Papilloma virus
 - b) Variola virus
 - c) Polyoma virus
 - d) Chickenpox virus
19. The Influenza type A virus virus manifest through the following signs except :
- a) Runny nose
 - b) Myalgia
 - c) Sore throat
 - d) Diarrhoea
20. Is not responsible for disseminated viral infections:
- a) Measles virus
 - b) Hepatitis B virus
 - c) Human papilloma virus
 - d) Polio virus
 - e)

SECTION B :(40 MARKS)-ANSWER ALL QUESTIONS FROM THIS SECTION

QUESTION ONE

Discuss briefly medical importance of fungi.

(5marks)

QUESTION TWO

With an aid of a diagram describe sexual and asexual reproduction cycles in fungi.

(5marks)

QUESTION THREE

Explain the clinical signs manifested by a patient with histoplasmosis. (5marks)

QUESTION FOUR

Explain clinical conditions that will develop in an immunosuppressed patient with disseminated aspergillosis. (5marks)

QUESTION FIVE

Explain how HIV-1 evades the immune system. (5marks)

QUESTION SIX

Explain the pathophysiology of the Rotavirus infections in children. (5marks)

QUESTION SEVEN

(a) Describe clinical manifestations in patients infected with Echovirus infections (5marks)

QUESTION EIGHT

Explain clinical features you will use to identify a case of paediatric measles infection. (5 marks)

SECTION C: ANSWER ALL QUESTIONS FROM THIS SECTION(40 MARKS)

QUESTION ONE

As a nursing student, you have been invited to give a talk on Human papilloma virus infections to College Students. Discuss the following areas to be covered in your presentation:

- a. Transmission (2marks)
- b. Pathogenesis (10marks)
- c. Diagnosis (5marks)
- d. Prevention and management (3marks)

QUESTION TWO

Discuss the aetiology, pathogenesis, diagnosis and management of the following fungal infections:

- a. Coccidioidomycosis (10 marks)
- b. Blastomycosis (10 marks)