



(University of Choice)

**MASINDE MULIRO UNIVERSITY OF
SCIENCE AND TECHNOLOGY
(MMUST)**

MAIN CAMPUS

**UNIVERSITY EXAMINATIONS
2021/2022 ACADEMIC YEAR**

FIRST YEAR SECOND SEMESTER EXAMINATIONS

**FOR THE DEGREE
OF
BACHELOR OF SCIENCE IN MEDICAL LABORATORY SCIENCES**

COURSE CODE: BML 117

COURSE TITLE: HIV/AIDS AND STI EDUCATION

DATE: 27/04/2022

TIME: 8.00 -10.00AM

INSTRUCTIONS TO CANDIDATES

Answer ALL questions

TIME: 2 Hours

MMUST observes ZERO tolerance to examination cheating

This Paper Consists of 4 Printed Pages. Please Turn Over. ►

SECTION A - (MULTIPLE CHOICE QUESTIONS) - 20 MARKS)

Instructions: Answer all Questions; Choose one best option that fits the stem statement.

1. HIV is a retrovirus that infects and colonizes cells in the _____.
 - a. immune system
 - b. immune system and the central nervous system
 - c. endocrine system
 - d. immune system and endocrine system
2. In 2015, the global prevalence of HIV infection was _____.
 - a. 0.2%
 - b. 0.4%
 - c. 0.6%
 - d. 0.8%
3. The most common cause of inpatient admission to hospital for those living with HIV is _____.
 - a. tuberculosis and other mycobacterial infections
 - b. cardiovascular disorders
 - c. bacterial infections
 - d. none of these
4. When was HIV first recognized in the U.S.?
 - a. 1970
 - b. 1975
 - c. 1981
 - d. 1986
5. Which of these is a symptom of HIV infection?
 - a. Swollen lymph nodes
 - b. Fever
 - c. Tiredness
 - d. All of the above
6. A person has AIDS when which of these occurs?
 - a. Exposure to HIV
 - b. HIV antibodies are found in the blood
 - c. The CD4+ count is lower than 200 or opportunistic infections develop in an HIV-infected person
 - d. A person has HIV for 5 years
7. There is no vaccine against HIV because of which of the following?
 - a. The virus is so antigenically variable
 - b. Such a vaccine would be too expensive
 - c. The virus can be controlled by a change in sexual habits
 - d. Latency can abrogate any vaccine effect
8. Which of the following is NOT an enzyme found in the HIV virus?
 - a. DNA polymerase
 - b. Integrase
 - c. Protease
 - d. Reverse Transcriptase
 - e. None of the above. (all are enzymes found in the HIV virus)
9. What enzyme is responsible for resistance?
 - a. DNA polymerase
 - b. Integrase
 - c. Protease

- d. Reverse Transcriptase
10. Primary infection is.....?
 - a. The time period when a person first test positive for HIV.
 - b. The first person in a family to become HIV infected.
 - c. The time period when the HIV virus remains dormant at low levels in the body.
 - d. Characterized by very high viral loads.
 11. Which of the following is NOT a WHO 1 Condition?
 - a. Papular Puritic Eruption
 - b. Asymptomatic
 - c. Persistent generalized lymphadenopathy
 - d. None of the above
 12. Which of the following is NOT a WHO 2 condition?
 - a. Papular Puritic Eruption
 - b. Persistent generalized lymphadenopathy
 - c. Molluscum Contageosium
 - d. Herpes Zoster
 13. Why is adherence so important in ARV therapy?
 - a. It is an important factor in ensuring successful outcomes.
 - b. Short-term lapses in adherence may lead to resistance.
 - c. Poor adherence can lead to cross-resistance.
 - d. All of the above.
 14. Which of the following is NOT a WHO stage 4 condition?
 - a. Lymphocytic Interstitial Pneumonitis
 - b. Kaposi's Sarcoma
 - c. Pneumocystis jiroveci pneumonia
 - d. CNS Lymphoma
 15. Which of following group of organisms includes the pathogens most often identified as causing acute epididymitis in men who have sex with men?
 - a. Neisseria gonorrhoeae, Treponema pallidum, and Mycoplasma genitalium
 - b. Chlamydia trachomatis, Proteus species, and Staphylococcus aureus
 - c. Neisseria gonorrhoeae, Chlamydia trachomatis, and Escherichia coli
 - d. Mycoplasma genitalium, Trichomonas vaginalis, and Ureaplasma urealyticum
 - e. Escherichia coli, Proteus mirabilis, and Klebsiella pneumoniae
 16. Which of the following are the most common causes of genital ulcers among young sexually active persons with HIV?
 - a. Chancroid and syphilis
 - b. Herpes simplex virus (HSV) and chancroid
 - c. Herpes simplex virus (HSV) and syphilis
 - d. Lymphogranuloma venereum (LGV) and herpes simplex
 - e. Lymphogranuloma venereum (LGV) and chancroid
 17. Which one of the following is a recommended antimicrobial treatment for chancroid?
 - a. Doxycycline 100 mg orally twice daily for 7 days
 - b. Doxycycline 100 mg orally twice daily for 14 days
 - c. Benzathine penicillin G 2.4 million units as a single intramuscular dose
 - d. Azithromycin 1 g orally as a single dose
 18. Which one of the following is the most sensitive test for the diagnosis of chlamydia urethritis?
 - a. Midstream void urine culture
 - b. First-void urine culture
 - c. Urethral swab for enzyme immunoassay (EIA)
 - d. First-void urine nucleic acid amplification test (NAAT)

19. the chemokine receptor cell present in the host macrophages that helps in the primary attachment of HIV is.....?
- CxRC 4
 - CCR5
 - CCR4
 - CRC5
20. Which of the following is an important HIV antigen in determining the early detection of HIV infection?
- p24
 - gp120
 - Pol gene
 - gp41

SECTION B: SHORT ANSWER QUESTIONS – 40 Marks

- Outline the replication cycle of HIV (8 marks)
- Explain the pathogenesis of HIV (8 marks)
- Describe the diagnostic tests for HIV (8 marks)
- Explain factor affecting Sexually transmitted Diseases (8 marks)
- Outline common causes of vaginal discharge

SECTION C: LONG ESSAY QUESTIONS - 40 Marks

- Discuss the structural organization of HIV genome (20 marks).
- Identify and highlight sections in Kenyan constitution punitive laws that do not support HIV prevention and management (20 marks)