



*(University of Choice)*

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

**MAIN CAMPUS**

**UNIVERSITY EXAMINATIONS  
2018/2019 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<sup>TH</sup> MAY 2019**

**TIME: 3.00 - 5.00 PM**

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**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 I - ( MULTIPLE CHOICE QUESTIONS) - 20 MARKS)**

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

1. Genital herpes are caused by the herpes simplex viruses:
  - a. HSV-1 and HSV-2.
  - b. HIV, HSV-1 and HSV-2.
  - c. HTLV1.
  - d. HPV, HSV-1 and HSV-2.
2. Lymphadenopathy refers to:
  - a. Cancer of the lymph nodes.
  - b. Swollen or enlarged lymph nodes.
  - c. Shrunken lymph nodes.
  - d. Infected lymph nodes.
3. Syphilis is a complex systemic sexually transmitted infection caused by:
  - a. A virus.
  - b. The spirochete.
  - c. A fungus.
  - d. A helminth.
4. Which of the following is a mode of transmission of HIV?
  - a. Saliva.
  - b. Urine.
  - c. Human bite.
  - d. Tears.
5. Which of these is a health problem that can be caused by STDs in women?
  - a. Pelvic inflammatory disease (PID)
  - b. Ectopic pregnancy
  - c. Higher risk for cervical cancer
  - d. All of the above
6. Which is the most common STD caused by bacteria?
  - a. Gonorrhea
  - b. Syphilis
  - c. Chlamydia
  - d. Genital warts
7. Which of these is NOT a type of STDs?
  - a. Chancroid
  - b. Scabies
  - c. Molluscum contagiosum
  - d. HTLV
8. To lower your risk of getting an STD:
  - a. Use a male condom
  - b. Don't have multiple sex partners
  - c. As a young person, delay having sexual relations as long as possible
  - d. All of the above
9. The p24 molecule is a component of which part of the HIV.

- a. Core
  - b. Envelope
  - c. Reverse transcriptase
  - d. Fusion domain
10. The highest proportion of infected HIV persons is in which of the following age groups?
- a. 10-14 years
  - b. 15-24 years
  - c. 25-34 years
  - d. 35-44 years
11. As of 2009 the rate of HIV-diagnoses in the United States is increasing only in which risk group?
- a. Injection drug users
  - b. Men who have sex with men
  - c. Heterosexuals
  - d. Health care workers
12. The highest risk of acquiring HIV infection is to the:
- a. Women in vaginal intercourse
  - b. The receptive partner in anal intercourse
  - c. The male partner in vaginal intercourse
  - d. The male partner in oral intercourse
13. The most sensitive test for detection of the HIV currently commonly used is:
- a. Elisa for p24 antigen
  - b. Polymerase chain reaction (PCR)
  - c. Virus culture
  - d. Elisa for p17 antigen
14. The single most important factor in confronting the HIV-epidemic in a country is:
- a. Availability of anti-retroviral drugs
  - b. Political commitment from the top levels of government
  - c. A low prevalence of injection drug users
  - d. Incarceration of sex workers
15. The biggest single barrier to control of HIV globally is:
- a. Availability of treatment
  - b. Stigmatizing attitudes
  - c. Inadequate supply of condoms
  - d. The limited number of methadone clinics
16. A small proportion of individuals can resist infection by HIV because they lack the:
- a. CCR 5 receptor
  - b. CXCR 4 receptor
  - c. The fusion domain
  - d. The GP41 receptor
17. Protease inhibitors block:
- a. Entry of HIV
  - b. Transcription of HIV RNA to HIV DNA
  - c. Integration of HIV DNA into the host DNA

- d. Packaging of the progeny HIV
18. The following is NOT associated with primary infection by HIV
- High viral load
  - lowered CD4 cells count
  - High CD4 cells count
  - fatigue
19. The highest risk of transmission from an HIV-infected mother to her infant occurs:
- In utero
  - During the birth process
  - Through breast feeding
  - Equal risk at each stage
20. Mutation of HIV is responsible for:
- Drug resistance
  - Escape from the immune system
  - Increased replication potential
  - All of the above

### **SECTION B: SHORT ANSWER QUESTIONS – 40 Marks**

1. Explain the global and national response to the HIV pandemic (8marks)
2. Outline the modes and determinants of HIV transmission ( 8marks)
3. Describe high risk behaviours associated with HIV transmission ( 8marks)
4. Describe social cultural barriers to behaviour change in HIV transmission prevention ( 8marks)
5. Explain the obligations and responsibilities of healthcare workers in addressing legal and ethical issues in management of HIV infections ( 8 marks)

### **SECTION C: LONG ESSAY QUESTIONS - 40 Marks**

1. Using the ART target sites discuss the groups of HIV treatment regimes citing appropriate examples ( 20marks)
2. Discuss the pathophysiology of Sexually Transmitted I infections associated with genital ulcers ( 20marks)