

UNIVERSITY OF SWAZILAND
FACULTY OF HEALTH SCIENCES
DEPARTMENT OF GENERAL NURSING
FINAL EXAMINATION, DECEMBER 2016

COURSE TITLE: HIV PREVENTION, INFECTION AND MANAGEMENT
OF AIDS

COURSE CODE: GNS 113

TIME ALLOCATED: TWO (2) HOURS

MARKS ALLOCATED: 75

INSTRUCTION:

1. ANSWER ALL QUESTIONS ON THE SEPARATE ANSWER SHEET PROVIDED
2. THERE ARE 15 PRINTED PAGES INCLUDING COVER PAGE

DO NOT OPEN THIS QUESTION PAPER UNTIL YOU ARE TOLD TO DO SO BY THE INVIGILATOR

Instructions: For each question, choose the **MOST** correct response and circle in your answer sheet the corresponding letter only, e.g. 7. B. Each correct response carries 1 mark.

1. _____ are a type of immune cells that protect the body from infection. When someone is infected with HIV, the level of this type of immune cells _____.
 - A. Macrophages, increase
 - B. Red blood cells, decrease
 - C. CD4 cells, increase
 - D. CD4 cells, decrease

2. HIV is passed from person-to-person through certain body fluids. For transmission to occur, these fluids must come into direct contact with _____.
 - A. A lymph node
 - B. A mucous membrane
 - C. Pores on the skin
 - D. The intestinal tract

3. What is the relationship between CD4 cell count and opportunistic infection?
 - A. As CD4 cell count rises, the risk for opportunistic infections decreases
 - B. As CD4 cell count decreases, risk for opportunistic infections decrease
 - C. As the number of opportunistic infections is equal to the CD4 cell count
 - D. As the CD4 cell count rises, the risk of opportunistic infections increases

4. Other than HIV, what sexually transmitted infection (STI) is incurable?
 - A. Syphilis
 - B. Chlamydia
 - C. Gonorrhoea
 - D. Genital Herpes

Scenario: Themba was diagnosed with HIV. He disclosed his status to some of his co-workers. Questions 5- 8 relate to this scenario.

5. Now he notices that his co-workers do not invite him for braai parties anymore. This is an example of _____.
- A. External Stigma
 - B. Internal Stigma
 - C. Secondary Stigma
 - D. Discrimination
6. After some time, Themba stops going to church because he feels that he is not worthy of going to church anymore.
- A. External Stigma
 - B. Internal Stigma
 - C. Secondary Stigma
 - D. Discrimination
7. At work Themba's boss fires him from his job. His boss explained that he can't have someone sick at the office all the time. This is an example of _____.
- A. External Stigma
 - B. Internal Stigma
 - C. Secondary Stigma
 - D. Discrimination
8. Themba's wife starts to notice that she is no longer getting invited to social events or weddings. This is an example of _____.
- A. External Stigma
 - B. Internal Stigma
 - C. Secondary Stigma
 - D. Discrimination

9. HIV testing is recommended for sexually active people every _____, especially those living in countries with high HIV prevalence
 - A. Six weeks
 - B. Six months
 - C. After any sexual experience
 - D. Six years

10. Taking antiretroviral therapy (ART) as prescribed, or _____, is important because missing doses can allow HIV to mutate.
 - A. Adherence to treatment
 - B. Clinical care
 - C. Counselling
 - D. Harm reduction

11. What does the term "window period" mean?
 - A. The period of time from age of first sexual intercourse to HIV infection
 - B. The period of time from infection to three months post infection during which a person can receive a false negative HIV test result
 - C. The period of time after infection when a person with HIV should start antiretroviral therapy
 - D. The period of time after infection to when symptoms first appear.

12. Which region of the world accounts for 71% of the global HIV prevalence, even though it only makes up around 13% of the world's population?
 - A. Western and Central Europe
 - B. Sub-Saharan Africa
 - C. Latin America and the Caribbean
 - D. Eastern Europe and Central Asia

13. What's the most deadly opportunistic infection for people with HIV in Swaziland?
- A. Tuberculosis
 - B. Meningitis
 - C. Pneumocystis Pneumonia
 - D. Invasive fungal infections
14. How could you protect yourself from re-infection with HIV?
- A. Faithfulness to partner
 - B. Falling in love with an age mate
 - C. Consistent condom use
 - D. Have another boyfriend
15. If you don't get treatment, what is a possible outcome of late stage syphilis?
- A. Painless wounds all over the body
 - B. Rash on soles of feet and palms of hands
 - C. Growths in the brain
 - D. Itchy vaginal discharge
16. Tuberculosis is most often contracted by
- A. Ingesting the bacterium
 - B. Poor hand washing
 - C. The bacterium entering the body through broken skin
 - D. Inhaling the bacterium from the air

Scenario: Zodwa is at a local clinic to get tested for HIV. Questions 17 – 21 relate to the above scenario.

17. Which of her statements would suggest the highest risk for contracting HIV?
- A. "I found out my cousin has HIV and I shared her lipstick at a wedding last weekend"
 - B. "My boyfriend and I are in a committed, monogamous relationship, but we use condoms"
 - C. "I visited my grandmother in the hospital and one of the patients sneezed near me"
 - D. "I have several boyfriends, sometimes we use condoms"

18. In this scenario, Zodwa's testing for HIV is also referred to as _____
- A. Client initiated HIV testing and counselling
 - B. Provider initiated HIV testing and counselling
 - C. Post- testing counselling
 - D. Pre-testing counselling
19. Zodwa's HIV test is negative. This means that _____
- A. She definitely does not have HIV but should be counselled on HIV prevention methods
 - B. She may have HIV and should be retested in 3 months
 - C. She has HIV and should be started on antiretroviral therapy immediately
 - D. She has HIV but should not be started on antiretroviral therapy because she does not have any symptoms
20. Zodwa suspects that her boyfriend has HIV because he is frequently sick. What are some other common signs and symptoms of HIV disease?
- A. Penile discharge
 - B. Confusion and disorientation
 - C. Fever lasting longer than a month
 - D. Coughing up blood
21. You encourage Zodwa to talk to her boyfriend about getting tested for HIV. You understand that many people are hesitant to get HIV testing because _____
- A. HIV tests will cost the individual a lot of money
 - B. It takes multiple trips to a clinic to obtain the results
 - C. Health care workers are required to disclose an individual's HIV status to their community
 - D. Of stigma and discrimination

22. Personal protective equipment includes:
- i. Gloves, gowns,
 - ii. Masks, goggles
 - iii. Aprons, footwear, gloves
 - iv. Eye shields, aprons, masks
- A. i, & iv
 - B. i, ii, & iii
 - C. ii, iii, & iv
 - D. i, ii, iii, iv
23. What facilitates the prevention of mother-to-child transmission (PMTCT) of HIV?
- A. Delay in starting to attend clinic services when pregnant
 - B. Being fond of traditional medicine (*timbita*)
 - C. Lack of trust in health care system
 - D. Involving father in treatment decisions
24. The aim of health education on HIV and AIDS prevention and control should focus on the following **EXCEPT** _____
- A. Modification of sexual orientation
 - B. Reduce the risk of exposure to HIV and transmission
 - C. Avoid psychological stress
 - D. Helping individuals to develop the ability to cope with situations
25. The following statements are true with regards to antiretroviral therapy (ART), **EXCEPT** that it _____
- A. Increases survival rate
 - B. Increases hospitalization
 - C. Reduces HIV progression to AIDS
 - D. Reduces hospitalization

26. Spousal, family and peer support are components of:
- (i). Psychosocial support
 - (ii). Spiritual support
 - (iii). Emotional support
 - (iv). Physical support
- A. i, & iv
B. i, ii, & iii
C. ii, & iii
D. i, ii, iii, & iv
27. One of the effects of HIV on an individual's nutritional status is to increase energy requirements. Which one of the following reasons justifies the increase in energy requirements?
- A. Decreased nutrient loss
B. Food scarcity
C. Viral multiplication and opportunistic infections
D. Decreased basic metabolic functions
28. Which of the following influences the choice of an ART drug regimen?
- A. Other existing medical conditions
B. Race
C. Sex
D. Diet
29. Regarding nutrition, an HIV positive person _____.
- A. Should eat just like anybody else
B. Should reduce food intake to avoid obesity, heart diseases, diabetes and others
C. Needs additional food intake to cater for increased demand for nutrients
D. Needs reduced food intake to cater for decreased demand for nutrients

30. All the following are strategies for improving adherence to ART, **EXCEPT**
- _____
- A. Anticipating and treating side effects
 - B. Involvement of a treatment supporter
 - C. Simplifying treatment regimens
 - D. Taking 10 tablets per day
31. The following are consequences of HIV re-infection in people who are on ART:
- (i). Drop in the immune system
 - (ii). Viral load will increase
 - (iii). Resistance to ARVs
 - (iv). Emergence of new opportunistic infections
- A. i, ii, iii & iv
 - B. i, ii, & iii
 - C. ii, & iii
 - D. i, & iv
32. Immune cells that are targeted by HIV in the body are classified as _____
- A. Lymphocytes
 - B. Phagocytes
 - C. Dendritic cells
 - D. Neutrophils
33. Goals of ART includes all of the following, **EXCEPT**;
- A. Prolongation of life and improvement of Quality of Life.
 - B. Curing HIV from the body
 - C. Rational sequencing of drugs, limiting drug toxicity, and facilitation of adherence.
 - D. Greatest possible reduction in viral load for as long as possible.

34. Which of the following is a threat to the nutritional status of an individual living with HIV?
- A. Good appetite
 - B. Healed oral sores
 - C. Vomiting
 - D. Adequate energy intake
35. Which of the following are challenges associated with adherence to ART?
- i. Low pill burden
 - ii. Side effects
 - iii. Stigma
 - iv. Flexibility of treatment regimen
- A. i, & iv
 - B. i, & ii, & iii
 - C. ii, & iii
 - D. i, ii, iii, & iv
36. Social support may be achieved through all of the following **EXCEPT**
- A. Peer support
 - B. Secrecy
 - C. Family support
 - D. Productive work
37. Failure to disclose one's HIV status may be a function of all of the following, **EXCEPT**
- i. Fear of external stigmatization
 - ii. Fear of social isolation
 - iii. Avoiding to be discriminated against
 - iv. Fear of internal stigma
- A. i, & ii
 - B. i, ii, & iii
 - C. i, ii, iii, & iv
 - D. ii, iii & iv

38. Nombuso and Solomon's daughter is in a day-care center where there was a child who has just been diagnosed with HIV. What should they do to ensure that their daughter will not be exposed to the virus?
- A. Nothing, transmission is highly unlikely in this casual environment
 - B. Move her to another day-care centre immediately, after making sure
 - C. Tell their daughter to avoid contact with the child with HIV
 - D. Try to have the child with HIV removed from the day care centre
39. According to Swazi culture, the head of the family has power over family members, but he exercises most of his power in consultation with which relatives?
- A. Paternal grandparents, aunts and uncles
 - B. Maternal grandparents, aunts and uncles
 - C. Paternal grandparents and uncles
 - D. Maternal grandparents, aunts
40. The child-headed household is a new phenomenon in the Swazi culture; this phenomenon is related to _____
- A. Missing generation of parents due to HIV and AIDS
 - B. Parents dying due to Kaposi sarcoma
 - C. Parent failure to impose discipline to their children
 - D. Missing generation of parents due to aging process
41. Which of the following Swazi cultural practices has increased the risks of spreading HIV amongst families in Swaziland?
- i. Polygamy
 - ii. Wife inheritance
 - iii. Multiple concurrent partners (*bunganwa*)
 - iv. Male dominance
- A. i & ii
 - B. i, iii & iv
 - C. i, ii, iii & iv
 - D. i & iv

42. Which traditional healers' practice increases the risk of transmitting HIV?
- The incision with sterilized razors
 - The incision with unsterilized razor blades and sucking of blood.
 - Steaming of individuals sick with meningitis
 - Delayed admission thinking that individual is possessed by evil spirits.

Instructions: Match the following definitions with the appropriate term. For each definition there is only one corresponding answer e.g. 1. D

Definition	Appropriate term
43. Protein on the surface of HIV that binds to receptors on the CD4 cells	A. Reverse Transcriptase
44. Enzyme that fuses the HIV DNA into the human DNA	B. Glycoprotein
45. Converts the viral RNA into DNA, which is compatible with human genetic material.	C. Integrase
46. Enzyme that breaks down newly made HIV proteins which helps make a mature virus.	D. Protease
47. HIV's genetic material that provides instructions for the virus to replicate.	E. Viral RNA

Scenario: A 70 year-old lady is caring for her 24-year-old granddaughter, Sebe, who was employed in one industrial area. Owing to the fast progression of HIV disease in her, Sebe was requested to terminate her employment as she was too weak to work. Her grandmother is looking after her. Based on the scenario, state whether each of the following statements, 48-51, is true (T) or false (F). Circle the corresponding letter only.

- Universal precautions are necessary when the grandmother is assisting Sebe to pass urine.
- No other family member should ever use Sebe's bed linen.
- When there are no rubber gloves the grandmother can use plastic shopping bags to clean a wound on her granddaughter.
- The grandmother may hug her granddaughter for a brief period like 10 seconds only.

52. It is a legal requirement in Swaziland that an HIV positive woman discloses her status to the husband.

Instructions: Match the following sexually transmitted infection (STI) with the most accurate description. For each STI there is only one corresponding answer e.g. 1. D

STI	Description
53. Genital Herpes	A. May have no signs or symptoms for 10 years
54. HIV	B. Can lead to serious conditions such as blindness or mental illness
55. Gonorrhoea	C. Men may or may not have penile discharge; women may have no symptoms
56. Hepatitis B or C	D. Increases chances of getting cervical cancer
57. Syphilis	E. Associated with painful blisters like cold sores on the genitals
58. Human Papillomavirus (HPV)	F. Transmitted in the same ways as HIV, it has no current cure and causes liver failure

59. You could definitely protect yourself from contracting HIV by:

- A. Having only one sexual partner
- B. Being faithful to your only partner
- C. Completely abstaining from sexual intercourse
- D. Using two condoms when engaging in sexual intercourse

60. You could use all of the following to add lubrication to the condom, **EXCEPT**

- A. Saliva
- B. K-Y jelly
- C. Vaseline
- D. Plain yoghurt

61. Of the following, what is the most risky sexual practice?

- A. Phone sex
- B. Oral sex
- C. Anal sex
- D. Showering together

Instructions: For each of the following situations, please determine if that action can or cannot transmit HIV. Circle either A or B in your answer sheet.

A. Can transmit HIV

B. Cannot transmit HIV

62. Being bitten by a mosquito
63. Sharing saliva with an HIV positive person
64. Being injected with an HIV contaminated needle
65. Sharing utensils or meals
66. Breastfeeding from HIV positive mother

Match the HIV life cycle phase with the corresponding letter in the following picture

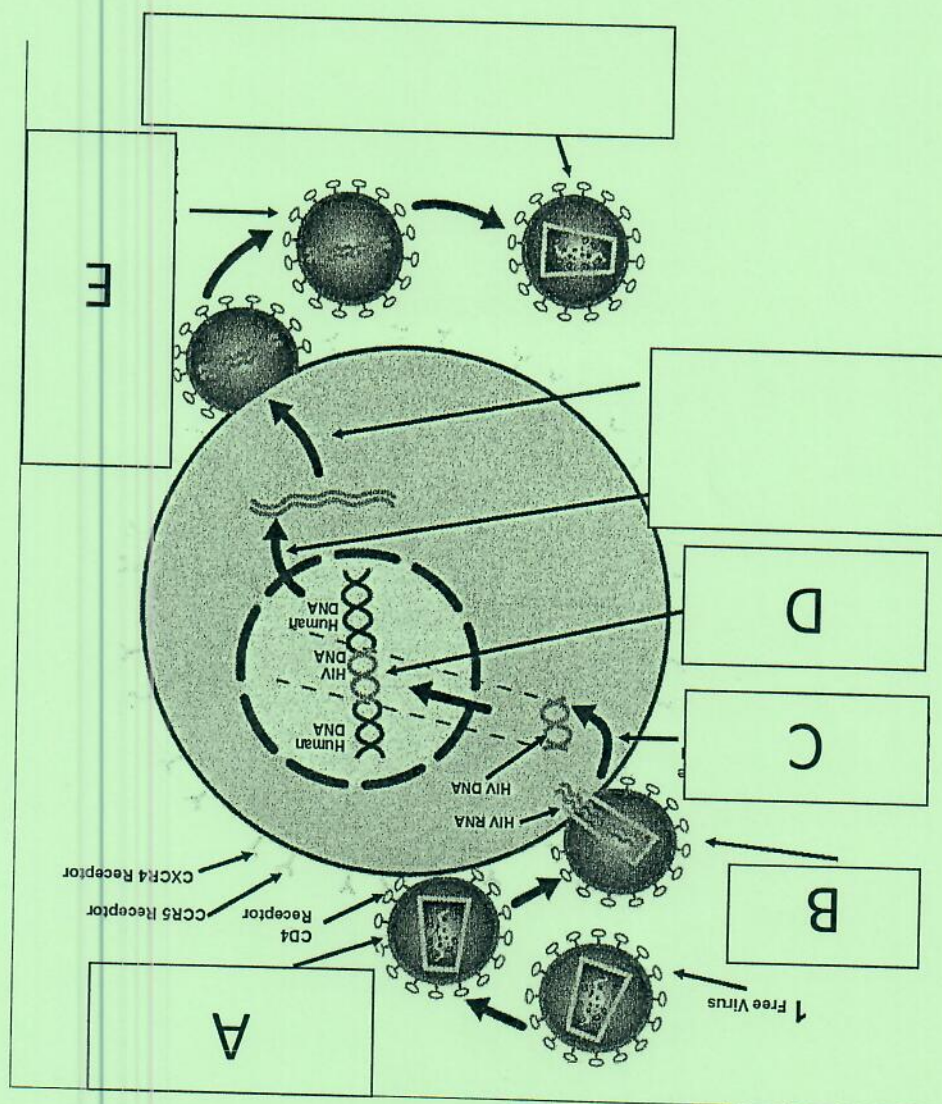
67. Fusion

68. Integration

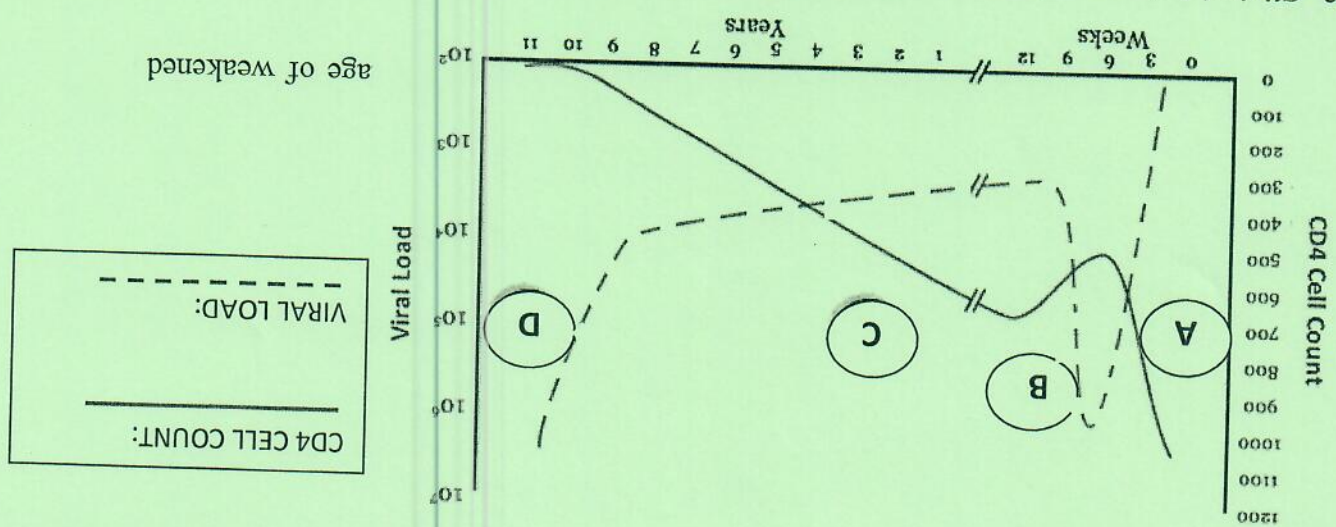
69. Budding and Maturation

70. Binding or Attachment

71. Reverse Transcription



The following graph depicts the life course of untreated HIV. Please match the following description with the corresponding letter



72. Clinical Latency – immune system stabilizes and infected person may remain symptom free
73. Acute Infection – rapid HIV replication that may cause a flu-like syndrome
74. Seroconversion – Point which antibodies begin responding to HIV virus
75. AIDS Stage – CD4 count less than 200 and opportunistic infections present