

**UNIVERSITY OF SWAZILAND**

**FACULTY OF HEALTH SCIENCES**

**FINAL EXAMINATION DECEMBER 2013**

**COURSE CODE: HSC 113**

**COURSE TITLE: HIV PREVENTION INFECTION AND MANAGEMENT OF AIDS**

**TIME ALLOWED: 2 HOURS**

**MARKS: 75**

**THIS EXAMINATION HAS SEVENTEEN (17) PAGES**

**INSTRUCTION:**

1. ANSWER ALL QUESTIONS
2. CIRCLE THE LETTER THAT CORRESPONDS WITH THE MOST CORRECT ANSWER IN YOUR ANSWER SHEET

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**INSTRUCTIONS:** For each of the following questions / statements, select the **MOST** correct answer and circle the letter that corresponds with it in your answer sheet e.g. 1 (B)

1. Which of the following is a mode of HIV transmission?
  - A. Urine
  - B. Human bite
  - C. Saliva
  - D. Tears
  
2. Sigwili is less than two (2) years old and tested positive at 19 months after stopping breastfeeding, to promote survival Sigwili has to be initiated on ART;
  - A. Immediately after testing
  - B. At his 2<sup>nd</sup> birthday
  - C. At his 3<sup>rd</sup> birthday
  - D. At 5<sup>th</sup> birthday
  
3. Zanele is pregnant and living with HIV and she has been initiated on prophylaxis (drugs to prevent mother to child transmission [PMTCT].) She is worried that her baby will test positive. She has decided not to breastfeed her baby after delivery. To your understanding how old will be the baby when the mother finally knows the baby's HIV status?
  - A. 6 months
  - B. 6 weeks
  - C. 19 months
  - D. 24 months
  
4. The combination of three (3) ARVs effectively slows down infection rate  
The effect of ARVs include the following, EXCEPT:
  - A. Prevent HIV from entering the nucleus
  - B. Prevent the formation of double strands of DNA
  - C. Prevent formation of double strands of RNA
  - D. Prevent formation of the provirus

5. The stage of dying where the person's self-concept is overshadowed by gloom and the inability to imagine life beyond the new diagnosis is called;

- A. denial stage
- B. anger stage
- C. bargaining stage
- D. depression stage

6. The psychosocial issues of an individual living with HIV must be attended to from the perspective of the all the following EXCEPT \_\_\_\_\_;

- A. partner
- B. caregiver
- C. Patient
- D. health care provider

7. Fanazi is a first year student at UNISWA in stage 2 of HIV and AIDS he is presenting with a skin problem. He heard some of his friends gossiping about his HIV status and cried. Determine what word best suits this situation of Fanazi.

- A. discrimination
- B. stigma
- C. judgement
- D. critique

8. Fanazi could use the following coping strategies EXCEPT;

- A. talk back
- B. be strong and prove himself
- C. talk to people he feels uncomfortable with
- D. try to explain the facts

9. The consequences of stigma and discrimination in PMTCT is likely to result to the following EXCEPT \_\_\_\_\_.
- A. Prevent access to HIV testing, counseling and PMTCT services
  - B. Encourage disclosure of HIV test results to partner (s)
  - C. Discourage acceptance of Prevention Mother To Child Transmission intervention
  - D. Discourage access to Antenatal care services

**Scenario:** A 20 year old man Seluleko Dlamini, comes to the hospital for his medical examinations (including HIV testing) following his admission at the University of Swaziland. When the laboratory results came Mr Dlamini was told that he is HIV positive. He became apprehensive because his girlfriend had informed him in the previous month that she is pregnant. He then sought further information on how he could protect his unborn child.

Questions 10 – 12 are based on above situation

10. All of the following are necessary for Seluleko to consider since he is infected with HIV EXCEPT?
- A. To protect himself from getting infected with sexually transmitted infections
  - B. To prevent re-infection with other HIV strains
  - C. To use condoms
  - D. To increase length of sexual intercourse
11. Re-infection can occur from all of the following EXCEPT \_\_\_\_\_.
- A. A second time after forgetting to take ARV's
  - B. A second time after a needle prick
  - C. A second time while having unprotected sex with another infected person.
  - D. A second time after getting blood transfusion
12. The following are risk factors for HIV transmission that could have occurred with Seluleko EXCEPT:
- A. Multiple sexual partners
  - B. Intravenous drug abuse
  - C. Ulcerative STI (e.g. syphilis, chancre, gonorrhoea)
  - D. Medical male Circumcision

13. Which maternal (a breastfeeding mother) decrease the risk of HIV transmission through breast milk?
- I. Recent HIV infection
  - II. High viral load
  - III. High CD4 count
  - IV. Mastitis (infection of the breast)
- A. I and IV
  - B. I and II
  - C. III only
  - D. IV only
14. The following are high risk of getting HIV infection EXCEPT:
- A. Swallowing semen
  - B. Using personal sex toys
  - C. Vaginal or anal sex with condom using lubricant (Vaseline)
  - D. Contact with menstrual blood
15. In the history of HIV, 1986 marks the year when \_\_\_\_\_
- A. The first HIV positive person died in Swaziland
  - B. The first case of HIV was recorded in the United States of America
  - C. Antiretroviral drugs were discovered
  - D. The first HIV positive person in Swaziland was identified
16. Which of the following modes of HIV transmission accounts for the largest number of transmissions in Swaziland?
- A. Blood transmission
  - B. Mother to child transmission
  - C. Heterosexuality
  - D. Needle pricks

17. Which of the following is correct about HIV progression in the human body?

- A. Viral load initially rises sharply and later on gradually.
- B. Age has no influence of the disease progression
- C. HIV 2 progresses faster than HIV 1
- D. A and B

**Scenario:** You realised that your 42 year old uncle has developed some pink, red and purplish spots on the skin, without any other sign of illness. As you continue probing into his health he finally discloses to you that he is HIV positive. Apparently he had not been getting any medical care, nor taking any antiretroviral medication. He doesn't want anyone to know about his status.

Questions 18-19 are based on this scenario?

18. In what stage of HIV progression would you categorize him?

- A. Stage I
- B. Stage II
- C. Stage III
- D. Stage IV

19. Which of the following statements is likely to be true about the uncle?

- A. The viral load is low
- B. The spots have nothing to do with his HIV status
- C. He is not yet infectious, that is, his chances of transmitting the virus to other people is very low
- D. The viral load is high

20. Which of the following would be correct about the care of your uncle in the context of Swaziland?

- A. The HIV counselling that he got might have been ineffective.
- B. He should seek medical advise
- C. He has no right to keep his status secret because this affects treatment and promote HIV spread
- D. A and B

21. Which of the following diseases is both an opportunistic infection and a sexually transmitted disease?
- A. HIV
  - B. Thrush
  - C. Gonorrhoea
  - D. Meningitis
22. Which of the following is involved in HIV testing and counselling?
- A. Be given counseling alone without being tested
  - B. Be tested and leave without receiving any counseling
  - C. Start by receiving counselling then get tested
  - D. All of the above
23. Which of the following is correct about HIV testing and counselling?
- (i) Health professionals do not need counselling if they wish to be tested
  - (ii) It is an ongoing process
  - (iii) It shortens the grieving process
  - (iv) It can be voluntarily sought
- A. i, ii, iv
  - B. ii, iii, i
  - C. iii, iv, i
  - D. ii, iii, iv
24. Epidemiology refers to
- A. study of the distribution of diseases, their causes, transmission mechanism, trends and determinants.
  - B. the occurrence of a disease in community or region.
  - C. the constant occurrence of a disease or infectious agent in a given geographical area or population group.
  - D. a disease occurring over a wide geographical area e.g. section of a nation, or an entire nation.

25. Nozipho who is known to be HIV positive happened to sneeze and some of the saliva splashed Sethu's face. In your opinion, the correct action for Sethu is to \_\_\_\_\_.

- A. test for HIV as soon as possible.
- B. go for HIV counselling.
- C. wash his face with an antiseptic.
- D. ignore all above action and just continue with life.

26. The period between the time of becoming infected by HIV and the production of HIV antibodies is known as

- A. incubation period
- B. window period.
- C. primary infection phase.
- D. A and C

27 Which enzyme(s) assists with changing the injected viral RNA to DNA upon entry into the host cell?

- A. protease.
- B. reverse transcriptase.
- C. integrase.
- D. B and C.

28. The most infectious period(s) in an individual with HIV infection is (are):

- (i) soon after contracting the infection.
- (ii) half way through the infection period.
- (iii) when the individual has full blown AIDS
- (v) Soon after starting ART

- A. i & ii
- B. ii & iii
- C. i & iii
- D. iii & iv



29. Viral replication leads to all of the following EXCEPT \_\_\_\_\_.
- A. destruction of CD4 cells.
  - B. progressive decrease in body's immune system.
  - C. susceptibility to opportunistic infections (OIs).
  - D. boosted immune system
30. After several years of being ART all of the following occur EXCEPT \_\_\_\_\_.
- A. the CD4 count return to their normal range
  - B. no HIV antibodies are traceable in the blood.
  - C. the HIV dies.
  - D. the HIV replication is halted
31. Which type of HIV is most prevalent in Swaziland?
- A. HIV type 4.
  - B. HIV type 3.
  - C. HIV type 2.
  - D. HIV type 1.
32. As a result of HIV and AIDS, the family structure in Swaziland has evolved to more nuclear family forms, including the \_\_\_\_\_.
- i. Single parent families
  - ii. Grandparent families
  - iii. Child-headed families
  - iv. Homosexual families
- A. i, ii, iv
  - B. i, iii, ii
  - C. ii, iii
  - D. i, iii

33. In the Swazi context, which people will the head of the family consult for critical issues?
- A. Grandparents, paternal aunts and uncles
  - B. Grandparents, maternal aunts and uncles
  - C. Paternal grandparents and paternal uncles only
  - D. Maternal grandparents, paternal aunts and maternal uncles
34. Which of the following have contributed to social change, giving rise to non-traditional families in Swaziland?
- A. Single parent families
  - B. Urbanization and modern development processes
  - C. The solid family networks
  - D. non-consultation with the elders of the family.
35. Which of these cultural practices had positive influence on the prevention of HIV transmission?
- i. Having sex with many women to prove manhood- *inganwa*
  - ii. Sexual debut which is sanctioned by marriage
  - iii. Virginity testing for both girls and boys
  - iv. The use of ridicule to sanction negative sexual behaviour
- A. i,ii,iii
  - B. i,ii,iv
  - C. ii,iii,iv
  - D. i,iii,iv
36. How was one dealt with if his shrub (*lusekwane*) wilted?
- A. As punishment he was beaten by his peers
  - B. He would be asked to uproot another one
  - C. He would be asked to marry the woman who has made him loose his virginity
  - D. He would be taken for questioning

**Scenario:** Mr X. is a well-respected member of the Siphofaneni community; he is married to three wives and has an extra marital affair with a woman whom he is renting a flat for in Manzini. He and two of his wives are having repeated attacks of chest infections for about three months. When he visited his girlfriend in Manzini, he found her very sick with chest infection. She told him that she had gone for HIV testing and tested positive and, therefore, was requesting him to use a condom. He strongly refused to use a condom and said “I am the man and am paying your rent, who are you to suggest that I should use a condom?” She then agreed to have sex without a condom risking re-infection. Even though Mr. X’s girlfriend advised him to go for testing and counseling together with his wives, he remained adamant until one of his wives became seriously ill with AIDS. He even sent his ill wife back to her home because he did not want the community to know that his wife had AIDS. Questions 37 – 40 relate to this situation.

37. With reference to Mr. X’s actions which statements are true about culture?

- i. Culture influences attitudes and behaviour related to the HIV/AIDS pandemic
  - ii. Culture influences the choice of taking or not taking the risk of contracting HIV
  - iii. Culture influences the legibility for ART
  - iv. Culture determines the level of discrimination against people living with HIV and AIDS
- A. i, ii, iii
  - B. ii, iii, i
  - C. ii, i, iv
  - D. iv, iii, i

38. When Mr. X refused to use a condom and the girlfriend agreed, what made her agree to have sex with him is (are) all BUT \_\_\_\_\_.

- (i) She was afraid that he would beat her up.
- (ii) She wanted to avoid argument
- (iii) She agreed because he was drunk
- (iv) She feared losing the financial support and the flat she was living in

- A. i, ii, iii
- B. ii, iii, iv
- C. i, iii, iv
- D. i, ii, iv

39. Which of Mr. X's cultural practices placed him at risk of contracting or spreading HIV?

- i. Polygamy
- ii. Having extramarital relationship
- iii. Refusing advice of using a condom coming from a woman
- iv. Supporting his girlfriend financially
- v. Sending his seriously ill wife back to her home

- A. ii, iii, i
- B. ii, iii, v
- C. iv, i, ii
- D. ii, iii, iv

40. If Mr. X asks you to give him advice what advice would you give him in order to reduce the HIV transmission risk?

- A. To practice safer sex with his wives and use a condom correctly and consistently
- B. To go and collect his wife from her home so that she may die in her marital home
- C. To reject his girlfriend because she has infected him with HIV
- D. To divorce the other wives and remain with one

- 41. In a health body, the CD4 count ranges between \_\_\_\_\_ cells/mm<sup>3</sup>.
  - E. 500 - 1200
  - F. 350 - 450
  - G. 200 - 350
  - H. 100 – 250
  
- 42. A person is said to be suffering from AIDS when the CD4 count reaches \_\_\_\_\_ cell/mm<sup>3</sup> and below.
  - A. 500
  - B. 350
  - C. 200
  - E. 50
  
- 43. Progression from HIV stage to AIDS stage is promoted by all of the following, EXCEPT:
  - A. Stress
  - B. Repeated sexually transmitted infections
  - C. Safer sex
  - D. Genetic differences
  
- 44. What does celibacy relate to?
  - A. Enjoying sex with partners of both sexes
  - B. Having no sex drive
  - C. Deliberate abstaining from sexual activities
  - D. Sexual intercourse between blood relatives
  
- 45. What does gerontosexual relate to?
  - A. Sexual pleasure gained by rubbing ones' genitals against another
  - B. Sexual pleasure derived from soiled underwear
  - C. Sexual intercourse with animals
  - D. Sexual intercourse with old people
  
- 46. Which of the following sexually transmitted infections manifests with a typical rash on the palms and soles?
  - A. Syphilis
  - B. Gonorrhoea
  - C. Chancroid
  - D. Chlamydia

47. Which of the sexually transmitted infections is not curable?
- A. Gonorrhoea
  - B. Syphilis
  - C. Herpes
  - D. Chancroid
48. One complication that could occur as a result of suffering from genital warts is \_\_\_\_\_.
- A. A baby's flat nose
  - B. Ectopic pregnancy
  - C. Infertility
  - D. Cancer of the cervix

INSTRUCTIONS: State if each of the following statement is TRUE or FALSE, by circling T / F in your answer sheet.

49. Unprotected penetrative anal sex has low risk of HIV transmission if the rectum is not torn. T F
50. It is not necessary to use condoms if both partners are HIV positive? T F
51. While people cannot stop having sex they need to be empowered to practice safer sex. T F
52. Families currently have less contact with each other, reducing the safety nets that existed in traditional society T F
53. The traditional Swazi family controls, but does not safeguard all actions of its members even if consulted before any member makes major decision T F
54. Girls should be forced to wear the tassel (*uncwasha*) because it prevents the spread of HIV. T F
55. You are visiting your friend Dudu who is very sick from AIDS. Would it be wise to say to him he will get well soon. T. F.
56. Heavy drinking of alcohol enhances progression from HIV to AIDS. T or F
57. ARVs are three different drugs which could be given as one pill or separately T.F.
58. Disinfection only destroys some germs on instruments. T or F
59. Chemical disinfectants are very reliable than sterilization. T or F
60. Lesbians can contract HIV if they share dildos. T or F

**INSTRUCTIONS:** Match each of the following opportunistic infections with the correct corresponding statement; circle the letter accompanying the correct response /responses e.g. 43. A, B, D (select all the correct answers). Each correct response is one (1) mark.

Opportunistic infection	Symptom / mode of spread
61. tuberculosis	A. watery itchy vaginal discharge
62. meningitis	B. aggressive skin cancer
63. Kaposi sarcoma	C. night sweats
64. candidiasis / thrush	D. Severe headache
	E. Deep kissing
	F. Inhalation of droplets
	G. neck stiffness

65. Maintaining good nutritional status is important to support overall health and immune system function for people with HIV/AIDS. Many HIV-related conditions affect and are affected by the body's nutritional status. Which of the following is not part of the link between nutrition and HIV?

- A. Malnutrition
- B. Impaired immune system
- C. Decreased susceptibility to infections
- D. Increased loss of nutrients

66. Inadequate nutrition in people with HIV infection may NOT result from one of the following factors:

- A. Diarrhoeal infections
- B. Increased absorption of nutrients
- C. Decreased food intake
- D. Oral sores

67. One of the effects of HIV on the nutritional status on an individual 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
68. Which one of the following factors is less likely to negatively influence the nutritional status of HIV- infected individuals?
- A. Inadequate nutrition knowledge
  - B. Lifestyle factors such as smoking, substance abuse and alcoholism
  - C. Adherence to anti-retroviral therapy
  - D. Nutrient losses due to diarrhoea and vomiting
69. Which viral receptor is involved in HIV attachment to the host cell?
- A. gp41
  - B. gp120
  - C. gp24
  - D. gp17
70. People who are infected with HIV can infect others:
- A. Only after they have had a positive HIV-antibody test result.
  - B. If they have symptoms of AIDS.
  - C. After they become infected, even if they look and feel healthy.
  - D. If they develop an opportunistic infection.
71. What does an HIV positive blood test mean?
- A. A person's body has developed detectable signs of HIV.
  - B. A person has AIDS.
  - C. Nothing for sure-there is a 50 percent chance that the result may be wrong.
  - D. A person is definitely not infected.



72. Someone who lives with a person who has AIDS should avoid contact with:

- A. The eating utensils he or she uses.
- B. His or her blood.
- C. The bathroom he or she uses.
- D. Reading newspapers the person suffering from AIDS has read.

**TOTAL 75 MARKS**

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STUDENT ID NO:

STUDENT PROGRAMME:

QUESTION e.g.1	A	B	C	D	QUESTION
1	A	B	C	D	14
2	A	B	C	D	15
3	A	B	C	D	16
4	A	B	C	D	17
5	A	B	C	D	18
6	A	B	C	D	19
7	A	B	C	D	20
8	A	B	C	D	21
9	A	B	C	D	22
10	A	B	C	D	23
11	A	B	C	D	24
12	A	B	C	D	25
13	A	B	C	D	26

27	A	B	C	D
28	A	B	C	D
29	A	B	C	D
30	A	B	C	D
31	A	B	C	D
32	A	B	C	D
33	A	B	C	D
34	A	B	C	D
35	A	B	C	D
36	A	B	C	D
37	A	B	C	D
38	A	B	C	D
39	A	B	C	D
40	A	B	C	D
41	A	B	C	D
42	A	B	C	D
43	A	B	C	D

33	A	B	C	D
45	A	B	C	D
46	A	B	C	D
47	A	B	C	D
48	A	B	C	D
49	T	F		
50	T	F		
51	T	F		
52	T	F		
53	T	F		
54	T	F		
55	T	F		
56	T	F		
57	T	F		
58	T	F		
59	T	F		
60	T	F		

61	A	B	C	D	E	F	G
62	A	B	C	D	E	F	G
62	A	B	C	D	E	F	G
64	A	B	C	D	E	G	G
65	A	B	C	D			
66	A	B	C	D			
67	A	B	C	D			
68	A	B	C	D			
69	A	B	C	D			
70	A	B	C	D			
71	A	B	C	D			
72	A	B	C	D			