



NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
SCHOOL OF SCIENCE AND TECHNOLOGY
MAY/JUNE 2012 EXAMINATION

HEM 602 Basics of HIV/AIDS (3 CR)
Time Allowed: 3 hours

Total Score: 100 marks

Instruction: Answer all questions in Section A and any 4 questions in section B (Total = 5 questions)

SECTION A: (Compulsory 20 marks)

1. According to ----- theory of HIV, HIV virus was manufactured as part of a biological warfare programme
2. HIV is a lentivirus and like all viruses of this type, it is known to attack the -----system
3. Lentivirus literally means -----
4. The most virulent, pandemic strain of HIV is -----
5. HIV M, N and O are subgroups of -----
6. When a viral transfer between animals and humans take place, it is known as -----.
7. The most commonly accepted theory of HIV is the ----- theory
8. When CD4+ T cell numbers begin to decline below a critical level, ----- immunity is lost.
9. One controversial theory of HIV asserts that HIV was transferred iatrogenically, i.e. via -----
10. The diagram of HIV indicates that the virus is ----- in shape
11. The diagram of HIV shows that it is composed of ----- copies of positive single-stranded RNA
12. Colonialism Theory of HIV origin was first proposed in 2000 by -----
13. The Vaccine Chat is associated with ----- theory of HIV
14. ----- theory of HIV is also known as Heart of Darkness theory
15. A disease present in a population or geographical area all the time is referred to as ----- disease
16. The less virulent strain of HIV is -----
17. The first conference on HIV/AIDS in Asia and the Pacific took place in Turkey. True or false: -----
18. An abnormal redistribution of body fat with accumulation in abdominal area and dorso-cervical pads is known as -----
19. Koch postulates of HIV is made up of ----- postulates

20.HIV evades the body's immune system through the process of -----

SECTION B - Answer any 4 questions in this section

Question 1:

- a. What is HIV? (5 marks)
- b. What is AIDS? (5 marks)
- c. HIV primarily infects vital cells in the human immune system through three main mechanisms. Identify them (6 marks)
- d. HIV particles surround themselves with a coat of fatty material known as the viral: --- (1 mark)
- e. The three enzymes inside the viral core of HIV which are required for HIV replication are called: ----(3 marks) *(Total: 20 marks)*

Question 2:

- a. In February 1999 a group of researchers from the University of Alabama announced that they had found a type of SIVcpz that was almost identical to HIV-1. Briefly discuss their findings. *(20 marks)*

Question 3

Give a detailed description of the following theories of HIV

- a. The Hunter Theory (5 marks)
- b. The Oral-Polio Vaccine Theory (5 marks)
- c. The Contaminated Needle Theory (5 marks)
- d. The Colonialism Theory (5 marks) *(Total: 20 marks)*

Question 4

- a. In the nineteenth century, the German scientist Robert Koch developed a set of postulates to guide people who are trying to prove that a germ causes a disease. List the postulates (8 marks)
- b. Enumerate the assumptions of the Conspiracy Theory (6 marks)
- c. Below is timetable of important events in the global history of HIV/AIDS. Please identify an event that corresponds with each date listed below.
 - i. Pre 1980 period
 - ii. 1981
 - iii. 1982
 - iv. 1983
 - v. 1985
 - vi. 1986 (6 marks) *(Total: 20 marks)*

Question 5

- a. Explain the following terms
 - i. Prevalence (2 marks)
 - ii. Endemic (2 marks)
 - iii. Incidence (2 marks)
 - iv. Epidemic (2 marks)
 - iv. Pandemic (2 marks)
- b. What is an abstinence-based approach to sex education? (5 marks)

- c. How does abstinence-based approach to sex education differ from comprehensive sex education? (5 marks) *(Total: 20 marks)*

Question 6

- a. Explain what happens inside the body when a person is infected with HIV (15 marks)
- b. What are the symptoms of AIDS (5 marks) *(Total: 20 marks)*