



CRAWFORD UNIVERSITY

FAITH CITY, KM 8, ATAN AGBARA ROAD,

HARMATTAN SEMESTER EXAMINATION

COLLEGE: NATURAL AND APPLIED SCIENCES

DEPARTMENT: BIOLOGICAL SCIENCES

PROGRAMME: BIOCHEMISTRY

COURSE CODE: BCH 425 COURSE UNIT: 2 TIME ALLOWED: 2HOURS

COURSE TITLE: BIOCHEMISTRY OF VIRUSES AND PARASITES

INSTRUCTION: ANSWER ANY FOUR QUESTIONS

(1a) What are viruses?

(b) Discuss the structure, lytic and the lysogenic cycles of the H1N1 virus. Illustrate your answers with a well-labeled diagram.

(2a) Discuss briefly, the genome assembly and the process of attachment to host cell of HIV virus.

(b) Explain the Replication cycle of HIV virus. Illustrate your answers with a well-labeled diagram.

(3) Write briefly on the mechanisms involved in the viral- host cell defense. Explain clearly with diagrams.

(4a) Describe the glucose metabolism of *Plasmodium falciparum*.

(b) Comment on the energetic of the process.

(5) Explain fully the process of synthesis of: (a) Nucleotides (b) Nucleic acids in the parasite *Plasmodium falciparum*

(6) Discuss the process of (a) hemoglobin degradation and (b) food vacuole of *Plasmodium falciparum*. Illustrate your answer with labeled diagrams.