

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2019/2020**

**FOURTH YEAR FIRST SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN MICROBIOLOGY**

**SBT 2471: MEDICAL VIROLOGY I**

**DATE: DECEMBER, 2019 TIME: 2 HOURS**

INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER ONE QUESTION

**QUESTION ONE: 30 MARKS**

a. Highlight four characteristics of viruses. (3 marks)

b. Explain the nomenclature of viruses. (3 marks)

c. Explain DNA as the carrier of genetic information. (3 marks)

d. Explain receptor-mediated endcytosis (viropexis) (3 marks)

e. Explain gene reassortment in certain RNA viruses. (3 marks)

f. Explain new cell-surface antigens as a consequence of virus infections.

(3 marks)

g. Explain four invasion routes used by viruses to infect their hosts. (3 marks)

h. Explain characteristics of the specific immune responses. (3 marks)

i. Explain properties of transformed cells. (3 marks)

j. Explain periodicity of epidemics. (3 marks)

**QUESTION TWO: 20 MARKS**

Discuss measles.

**QUESTION THREE: 20 MARKS**

Discuss Rhinoviruses

**QUESTION FOUR: 20 MARKS**

Discuss genetic variation in influenza viruses