

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

## JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

**UNIVERSITY EXAMINATIONS 2020/2021**

**YEAR 2 SEMESTER 1 SPECIAL/SUPPLEMENTARY EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN PUBLIC HEALTH**

**PEH 2208: MICROBIOLOGY**

**DATE: MARCH 2021 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER ALL QUESTIONS IN SECTION A AND ONLY ONE QUESTION IN SECTION B**

**SECTION A: (48 MARKS)**

1) Describe Koch’s postulates of disease causation (6 marks)

2) Describe common colony characteristics observed when bacterial cells are cultured

(6 marks)

3) Outline 6 nutrients important in the culture and growth of bacteria (6 marks)

4) Giving examples, describe food borne intoxications (6 marks)

5) Describe prions (6 marks)

6) Describe the nitrogen fixation process (6 marks)

7) Outline the various steps seen in the growth curve of a bacterial culture (6 marks)

8) Describe the principle of gram staining in microbiology (6 marks)

**SECTION B: (22 MARKS) ANSWER ANY ONE QUESTION**

9) Discuss the classification of bacteria on the basis of environmental requirements

(22 marks)

10) Discuss food preservation (22 marks)

11) discuss the economic importance of microorganisms (22 marks)