

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

## JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

**UNIVERSITY EXAMINATIONS 2018/2019**

**SPECIAL/SUPPLEMENTARY EXAMINATION FOR THE BACHELOR OF SCIENCE IN AGRICULTURE**

**AHS 2012: GENERAL MICROBIOLOGY**

**DATE: JULY 2019 TIME: 2 HOURS**

**INSTRUCTIONS: Answer Question One and any other two questions**

QUESTION ONE (30 MARKS)

a) Outline the differences between the following:

i) Archeabacterin and Enbactarin (2 marks)

ii) Heterotrophs and autotrophs (2 marks)

iii) Complex medium and synthetic medium (2 marks)

b) Describe the significance of Quorum sensing (6 marks)

c) State the differences between Prokaryotes and Eukaryotes (6 marks)

d) Describe microbial association (6 marks)

e) Explain the process of Grain staining (6 marks)

QUESTION TWO (20 MARKS)

Discuss how environmental factors affect microorganisms

QUESTION THREE (20 MARKS)

Discuss mycorrhizal associations

QUESTION FOUR (20MARKS)

Discuss the future of microbiology