

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

## JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY

**UNIVERSITY EXAMINATIONS 2017/2018**

**EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE HORTICULTURE AND ENVIRONMENTAL HORTICULTURE**

**SBT 2102: GENERAL MICROBIOLOGY**

**DATE: DECEMBER 2017 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

QUESTION ONE

a) Define the following terms used in microbiology;

i) Microorganisms (1 mark)

ii) Symbiote (1 mark)

iii) Ecosystem (1 mark)

iv) Spontaneous generation (1 mark)

v) Classification (1 mark)

vi) Pure culture (1 mark)

b) Explain the contribution of Robert Koch’s in Microbiology (6 marks)

c) Differentiate between the following terms;

i) Autotrophs and heterotrophs (3 marks)

ii) Mesopholic and psychropholic bacteria (3 marks)

d) Outline the concept of gram staining (6 marks)

e) State six characteristics of fungi (6 marks)

QUESTION TWO

Discuss microbial growth (20 marks)

QUESTION THREE

Describe isolation and identification of Microorganisms (20 marks)

QUESTION FOUR

Discuss the Economic importance of Microorganisms (20 marks)