**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2017/2018**

**EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN (ZOOLOGY, GENOMIC SCIENCE, APPLIED BIOLOGY, MICROBIOLOGY, BIOLOGICAL SCIENCES AND BIOTECHNOLOGY)**

**SBT 2170: MICROBIAL DIVERSITY**

**DATE: JANUARY 2018 TIME: 2 HOURS**

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

**QUESTION ONE**

1. Define the following terms as used in microbial diversity;
2. Microorganisms (1 marks)
3. Ecosystems (1 mark)
4. Lichen (1 mark)
5. Pathogen (1 mark)
6. Halophile (1 mark)
7. Describe the general characteristics of fungi (6 marks)
8. Outline Koch’s postulates (4 marks)
9. Draw a well labeled diagram of a bacteriophage (5 marks)
10. List six diseases caused by protozoa and their respective genera (6 marks)
11. Outline four differences between Prokaryotes and Eukaryotes (4 marks)

**QUESTION TWO**

1. Briefly discuss how Lazzaro Spallanzani and Luis Pastuer contributed to restructure and combine the history of microbiology. (10 marks)
2. Discuss different groups of Archaebacteria (10 marks)

**QUESTION THREE**

Discuss the economic importance of microorganisms giving relevant examples (20 marks)

**QUESTION FOUR**

Discuss the Thallus formation and reproduction in cyanobacteria (20 marks)