

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

**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2015/2016**

**FOURTH YEAR SECOND SEMESTER EXAMINATION FOR THE**

**DEGREE OF BACHELOR OF SCIENCE IN MICROBIOLOGY/**

**BACHELOR OF SCIENCE IN BIOTECHNLOLOGY**

 **SBT 2445: DISCOVERY STRATEGIES IN BIOTECHNOLOGY**

**DATE: DECEMBER 2015 TIME: 2 HOURS**

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

**QUESTION ONE**

1. Outline the principles of biology. [5 marks]
2. Describe the approaches used to characterizes species

 diversity in an area. [6 marks]

1. State the requirements during search for exploitable biology. [6 marks]
2. Briefly describe factors that affect organism biogeography. [6 marks]
3. Define the following terms:
4. Biopanning [1 mark]
5. Epibionts [1 mark]
6. Patents [1 mark]
7. Bioprospecting [1 mark]
8. Bioinformatics [1 mark]
9. List limitations encountered during search for new drugs. [2 marks]

**QUESTION TWO**

Discuss selective isolation and characterization of micro-organisms

for production of antimicrobial compounds. [20 marks]

**QUESTION THREE**

Conservation of biodiversity is key to future advancements in the

field of bioprospecting. Discuss. [20 marks]

**QUESTION FOUR**

Discuss the use of genomics and proteomics in biotechnology. [20 marks]