

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

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2020/2021**

**FIRST YEAR SUPPLEMENTARY/SPECIAL EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN MICROBIOLOGY AND BIOTECHNOLOGY**

**SBT 2179: BIOLOGICAL TECHNIQUES AND LAB SAFETY I**

**DATE: FEBRUARY 2021 TIME: 2 HOURS**

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

**QUESTION ONE: 30 MARKS**

a. Outline ten essential requirements of a typical laboratory. (5 marks)

b. Distinguish between personal safety and laboratory safety. (4 marks)

c. Explain the importance of records in a laboratory. (3 marks)

d. Briefly describe the four aspects of laboratory management. (4 marks)

e. Explain why it is important to wear a lab cotton coat over polythene lab coat during laboratory sessions. (3 marks)

f. Briefly describe the types of optical instruments used in the lab. (6 marks)

g. Illustrate a five triangle. (3 marks)

h. Enumerale ways in which chemicals can **?????** into contact with human in the laboratory. (2 marks)

**QUESTION TWO: 20 MARKS**

Discuss the control of microbial growth in a biological laboratory using chemical and

physical agents.

**QUESTION THREE: 20 MARKS**

Discuss the various staining techniques in the laboratory.

**QUESTION FOUR: 20 MARKS**

Explain the importance of minimizing hazards in the laboratory.