

W1-2-60-1-6

**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2016/2017**

**SPECIAL/SUPPLEMENTARY EXAMINATIONS FOR THE DEGREE OF BACHELOR OF SCIENCE IN APPLIED BIOLOGY**

**SZL 2217: LABORATORY SAFETY AND DESIGN**

**DATE: SEPTEMBER 2017 TIME: 2 HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE**

1. Define the following;
2. Laboratory manager. [2 marks]
3. Preventive maintenance as used in laboratory management. [2 marks]
4. Material safety data sheet. [2 marks]
5. Primary barriers in a laboratory. [2 marks]
6. Gangways. [5 marks]
7. List down FIVE factors that guide on storage of laboratory chemicals. [5 marks]
8. Give a guideline on storage of at least five named classes of chemicals. [5 marks]
9. List down FIVE necessary precautions against infections in a busy laboratory. [5 marks]
10. Briefly discuss the duties of a laboratory safety office. [5 marks]

**QUESTION TWO**

Explain the design of a laboratory with respect to safety of the laboratory users. [20 marks]

**QUESTION THREE**

Compare and contrast primary and secondary barriers in a laboratory. [20 marks]

**QUESTION FOUR**

Describe the roles/duties of a laboratory manager. [20 marks]

**QUESTION FIVE**

Discuss the various bench styles in a laboratory and the advantages and disadvantages of each. [20 marks]