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(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2020/2021 ACADEMIC YEAR

FIRST YEAR FIRST SEMESTER MAIN EXAMINATION (JAN-INTAKE)

**FOR THE DEGREE OF BACHELOR OF SCIENCE IN GRICULTURAL
EDUCATION AND EXTENSION, BIOLOGY, BIORESOURCE AND
CONSERVATION**

COURSE CODE: SBL 100
COURSE TITLE: LABORATORY PRACTICE, SAFETY AND
BIOSAFETY.

DATE: Tuesday 18th May, 2021.

TIME: 2:00 – 4:00 a.m.

INSTRUCTIONS TO CANDIDATES

Answer Question one (1) and any other two (2) Questions. Question one is compulsory and carries 30 marks, the other Questions carry 20 marks each.

TIME: 2 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

- Q1 (i) Explain the following terms
a) Material Safety Data Sheets (MSDS) (5 marks)
b) Personal Protective Equipment (PPE) (5 marks)
- (ii) Enumerate the types of laboratories in Biological Sciences (5 marks)
- (iii) Define the following terms
a. laboratory
b. Quality management system
c. Risk assessment
d. Laboratory Associated Infections (5 marks)
e. Fire drill
- (iv) List and explain the type of fire extinguishers and the fires they extinguish (5 marks)
- (v) Explain some of the physical conditions that may require first aid. (5 marks)
- (vi) State factors that must be part of the quality management of facilities and equipment in the laboratory (5 marks)
- Q2 As a Scientist in charge of Microbiology laboratory. You have received sputum samples from a patient allegedly suffering from Tuberculosis caused by *Mycobacterium tuberculosis*. Describe the biosafety level containment laboratory you will use to handle the sample. (20 marks)
- Q3 Discuss the causes and prevention of:
a) Biological hazards (10 marks)
b) Control of biological hazards (10 marks)
- Q4 You have been instructed to draft a Standard Operating Procedure (SOP) for Storage of flammable chemicals. Outline the general format/outline of the report. (20 marks)
- Q5 Discuss some of the safety aspects that have been addressed in Biological and Agricultural Sciences laboratories of Kibabii University. (20 marks)