



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2017/2018 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER SUPPLEMENTARY/SPECIAL EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE IN BIOLOGY

COURSE CODE: SBL 221
COURSE TITLE: BASICS OF LABORATORY PRACTICE AND SAFETY

DATE: 10TH October, 2018 **TIME:** 11:30 a.m. -1:30 p.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: 3 Hours

This paper consists of 2 printed pages. Please Turn Over



KIBU observes ZERO tolerance to examination cheating

- Q1 (i) Define the following terms
a) laboratory quality
b) Quality management system
c) Quality control
d) Quality assurance
e) Quality manual (5 marks)
- (ii) State factors addressed by Quality Management System (5 marks)
- (iii) Explain the essential requirements of a Biological Sciences laboratory. (5 marks)
- (iv) Compare and contrast Biosafety Level 2 (BSL2) and Biosafety Level 3 (BSL3) laboratories. (5 marks)
- (v) Distinguish between
a. Cabinet and suit laboratory
b. Open and closed laboratories
c. Interstitial space and service corridor
d. Physical and Ergonomic hazards
e. Class C and D fires (5 marks)
- (vi) (a) State common laboratory hazards in the laboratory (2 mks)
(b) Explain how such hazards can be controlled (3 mks)

Q2 As the Virologist in charge, you receive blood samples from a patient allegedly infected with *Ebola virus*. Describe the biosafety level containment laboratory you will use to handle the samples (20 marks)

Q3 Discuss Fire safety and its elements (20 marks)

Q4 Discuss International Institutions and Organisations involved in quality assessment and accreditation of laboratories. (20 marks)

Q5 Describe Standard Operating Procedures (SOPs) (20 marks)