



(Knowledge for Development)

KIBABII UNIVERSITY

UNIVERSITY EXAMINATIONS 2020/2021 ACADEMIC YEAR

SECOND YEAR SECOND SEMESTER SUPPLEMENTARY EXAMINATION

FOR THE DEGREE OF BACHELOR OF SCIENCE

COURSE CODE: SZL 223

COURSE TITLE: ZOOLOGICAL TECHNIQUES

DATE: 11TH JANUARY 2022

TIME: 2.00 – 4.00 PM

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) Define the following terms
a) Preservative
b) Single staining
c) Microtony
d) Stain
e) Molecular labelling Technique (5 marks)
- (ii) Write short notes on
a) Bourns fluid (5 marks)
b) Leishman stain
- (iii) State the parts and functions of a rotary microtome (5 marks)
- (iv) Explain the technique involved in lipid staining (5 marks)
- (v) Explain the composition of Alfalfa medium for culturing ciliates. (5 marks)
- (vi) Briefly explain applications of microtomes. (5 marks)
- Q2 Discuss how the following stains/reagents are prepared.
(a) Acetocarmine
(b) Benedicts solution
(c) Fehlings solution A and B
(d) Methylene blue (20 marks)
- Q3 Discuss the process of paraffin wax and embedding as a technique in tissue processing. (20 marks)
- Q4 Discuss the techniques involved in culturing
(a) Euglena
(b) Planaria
(c) Daphnia
(d) Hydra (20 marks)
- Q5 Enumerate and Explain Periodic Acid Schiff (PAS) reaction as a histochemical technique for detection of glycogen. (20 marks)