



(Knowledge for Development)

KIBABII UNIVERSITY

**UNIVERSITY EXAMINATIONS
2020/2021 ACADEMIC YEAR**

FOURTH YEAR FIRST SEMESTER

SUPPLEMENTARY/SPECIAL EXAMINATIONS

FOR THE DEGREE OF BACHELOR OF EDUCATION

COURSE CODE: SZL 421

COURSE TITLE: FISH AND FISHERIES BIOLOGY

DATE: 20TH JANUARY 2022

TIME: 11.00 - 1.00 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 3 printed pages. Please Turn  over

KIBU observes ZERO tolerance to examination cheating

1. (a) Explain the following concepts/terms
 - i. Evolutionary species concept
 - ii. Phylogenetic species concept
 - iii. Biological species concept
 - iv. Aquaponics
 - v. Cladistics method (5 marks)
 - (b) Write short notes on Ray fish (5 marks)
 - (c) Explain the challenges facing aquaculture systems in Kenya. (5 marks)
 - (d) List the type of fishes cultured in aquaculture systems in Kenya (5 marks)
 - (e) Write short notes on the blue economy (5 marks)
 - (f) Explain the classification of fishing gear used in fish harvesting (5 marks)
2. Discuss locomotion in fishes. (20 marks)
 3. Describe osmoregulation in fresh water fish (20 marks)
 4. Discuss the optimal foraging theory in fish feeding (20 marks)
 5. Discuss the methods used in fish breeding in Kenya (20 marks)