# BINDURA UNIVERSITY OF SCIENCE EDUCATION

## FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCE

### DEPARTMENT: NATURAL RESOURCES

### PROGRAMME: BSc NATURAL RESOURCES MANAGEMENT

### COURSE CODE: NR 124 (1): Introduction to Wildlife and Aquatic Resources

**DURATION: 2 HOURS**                                          **TOTAL MARKS: 70**

**INSTRUCTIONS TO CANDIDATES**               5 JUN 2023

Answer **THREE** questions out of the following five questions. You must answer question **One** from **SECTION A** and any **Two** questions from **SECTION B**.

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## SECTION A (COMPULSORY)

1) a) With the aid of examples from Zimbabwe, explain the following terms;

      i.    Subsistence fishing,        **[2 Marks]**

      ii.    Commercial fishing,        **[2 Marks]**

      iii.   Recreational fishing,        **[2 Marks]**

      iv.   Passive fishing gear,        **[2 Marks]**

      v.    Active fishing gear.        **[2 Marks]**

  b) Outline 5 categories of specialist feeders in fish populations.    **[5 Marks]**

  c) List the common types of distribution in living organisms.    **[5 Marks]**

  d) Classify the African lion under the seven classification groups of living organisms.    **[10 Marks]**

## SECTION B

2) Describe the process of digestion in a named ruminant.    **[20 Marks]**

3) a) State the formula for the Mark-Release-Recapture method and explain the meaning of each variable.    **[10 Marks]**

  b) In a Mark-Release-Recapture study on an offshore island, 100 saddlebacks were caught using mist nets and marked with colour

bands before being released. A second capture was conducted one week later. A total of 60 saddlebacks were caught, and 40 of these were recaptures. Estimate the abundance of saddlebacks on the island. **[10 Marks]**

4) a) Outline 5 categories of aquatic ecosystems. **[10 Marks]**

   b) Describe any 5 factors that affect fish distribution. **[10 Marks]**

5) Discuss current threats to the freshwater fishes of Southern Africa. **[20 marks]**

**END OF PAPER**