(University of Choice)

MASINDE MULIRO UNIVERSITY OF SCIENCE AND TECHNOLOGY
(MMUST)
MAIN CAMPUS
UNIVERSITY EXAMINATIONS
2022/2023 ACADEMIC YEAR
SECOND YEAR REGULAR EXAMINATION
FOR THE DEGREE OF B.Sc. IN:
FISHERIES AND AQUACULTURE

COURSE CODE: AAF222
COURSE TITLE: PRINCIPLES OF AQUACULTURE

DATE: 14.04.2023 **TIME: 3 – 5PM**

INSTRUCTIONS:

*Answer **ALL** Questions in **SECTION A** and **ANY TWO** questions in **SECTION B**.*

Correct and well-illustrated answers will earn you full marks.

SECTION A 30 MARKS

1. Given that the height of a theodolite instrument, the upper, middle and lower readings are 1.5m, 0.85m, 0.82m and 0.8m respectively and the assumed TBM 100m above sea level. Calculate the following:
   i) Elevation **(1.5marks)**
   ii) Distance between the instrument and the stadia **(1.5marks)**
2. Expain briefly the advantages of having an appropriate freeboard height in a pond **(3marks)**
3. Explain three advantages of pond fertilization **(3marks)**
4. Describe briefly factors to consider when selecting fish for transportation **(3marks)**
5. Describe the method used in oyster culture **(3marks)**
6. Discuss briefly the management of aquatic weeds in aquaculture **(3marks)**
7. Describe briefly the factors that influence the carrying capacity of an aquaculture system **(3marks)**
8. Explain briefly the relationship between Sechi Disc visibility and phytoplankton bloom in fish ponds **(3marks)**
9. Describe the factors affecting the diurnal fluctuation of pH in a pond **(3marks)**
10. Explain any three factors that can affect fish production in a pond **(3marks)**

SECTION B: 40 MARKS

11. Discuss the factors to consider when selecting fish species in aquaculture **(20marks)**
12. Discuss the history and current status of aquaculture in Kenya **(20marks)**
13. Discuss the design and construction of a 200 m^2 earthen pond **(20marks)**