JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

SCHOOL OF AGRICULTURAL AND FOOD SCIENCES

FOURTH YEAR SECOND SEMESTER UNIVERSITY EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN FOOD SECURITY

2016/2017 ACADEMIC YEAR

REGULAR

COURSE CODE: AAS 3427

COURSE TITLE: AQUACULTURE

EXAM VENUE: **STREAM: BSc. (Food Security)**

DATE: **EXAM SESSION:**

TIME: 2 HOURS

Instructions:

1. **Answer ALL questions in section A and ANY other 2 Questions in section B.**
2. **Candidates are advised not to write on question paper.**
3. **Candidates must hand in their answer booklets to the invigilator while in the examination room.**

SECTION A   [30 MARKS]

Answer ALL questions from this Section.

1. Define the following: weed fishes, seining, and monk.   (3marks)

2. State the quality considerations of the composition of feed water in fish ponds.

                                                                  (4marks)
3. State the optimal pH requirement for fish.   (2marks)

4. Briefly explain the following:

   a). The harm that can be caused by introduction of exotic fish species. (4marks)
   b). The benefits that can be realized from introduction of exotic species.(4marks)
5. Briefly explain why Tilapia is a most suitable aquaculture species.   (4marks)

6. Attempt a classification of fish into different feeding classes.   (3marks)
7. Explain why fish may stop feeding.   (3marks)

8. Briefly explain, giving examples, the use of fish in biological control of aquatic weeds.

                                                                  (3marks)

SECTION B   [40 MARKS]

Answer ANY TWO questions from this Section.

9. a). Discuss, giving examples, how toxic substances generated in fish ponds affect fish.

                                                                  (10marks)

   b). Explain why the aeration of fish ponds means the regulation of dissolved oxygen
content   of the pond water and not necessarily the increase of it.   (2marks)

   c). Discuss pond sanitation with respect to timing and methods of liming. (8marks)

9. a). Explain why fish is a more efficent producer of protein than the cow or the chicken.
                                                                  (7marks)
   b).Discuss the advantages and disadvantages of Tilapia as a candidate aquaculture
species.
                                                                  (6marks)
   c). Distinguish among monoculture, polyculture and integrated aquaculture.   (7marks)

10. a). Discuss the selection criteria for desirable characteristics of aquaculture organisms.

                                                                  (6marks)

   b). Give an account of the control of predatory and weed fishes.   (6marks)

   c). Enumerate the species suited for culture in stagnant and semi-stagnant ponds.
   (3marks)

d). How can fish production be increased in ponds?   (5marks)