



MASENO UNIVERSITY
UNIVERSITY EXAMINATIONS 2016/2017

**THIRD YEAR FIRST SEMESTER EXAMINATION FOR DEGREE OF
BACHELOR OF SCIENCE IN FISHERIES & AQUACULTURE AND
BACHELOR OF SCIENCE IN AQUATIC RESOURCES CONSERVATION
AND DEVELOPMENT WITH INFORMATION TECHNOLOGY**

MAIN CAMPUS

**AFN 301: FISHERIES RESOURCE DEVELOPMENT, ECONOMICS
AND MANAGEMENT**

Date: 22nd November, 2016

Time: 8.30 - 11.30am

INSTRUCTIONS:

- Answer ALL Questions in Section A and in Section B Question 9 any other THREE



Section A: Answer ALL questions from this section (40 marks)

1. Define the following terminologies used in economics (4 marks)
 - a) Price
 - b) Demand
 - c) Scarcity
 - d) Profit

2. Explain the term catch-per-unit-effort in a fisheries resource management (5 marks)

3. Using appropriate curves, explain the relationship between the following parameters used in fisheries bio-economic models
 - a) Stock size and Fishing Effort (3 marks)
 - b) Fishing effort and fish catch (3 marks)

4. Using appropriate examples, explain the cost and revenue functions in fisheries management (6 marks)

5. Explain the following terminologies (5 marks)
 - a) Fishing effort
 - b) Marginal revenue

6. Explain any **FIVE** biological restrictions applicable in managing open-access capture fisheries resources. (5 marks)

7. Using appropriate illustrations, describe indifference curve of an aggregate consumer (5 marks)

8. Describe the attributes of a good property right as a Fisheries management system. (4 marks)

Section B:

Answer question No. 9 and any other THREE questions from this section (30marks)

- 9 a) By use of a static model explain the concept of profit maximization in an open-access fishery (6 marks)
b) Describe any **THREE** fisheries management measures based on economic restrictions on the fishery (3 marks)
10. a) Using appropriate curves, describe how price of a commodity would affect its demand and supply in the market (5 marks)
b).Using appropriate example, distinguish between movement along demand curve and shift in demand curve (2 marks)
11. a) Using illustrations, explain the concept of production possibility frontiers as used in addressing the problem of scarcity. (4 marks)
b) With the help of example, explain the concept of opportunity cost (2 marks)
c) Explain how technological development in the fishery would impact on a production possibility curve of a given commodity. (1 marks)
12. a). Using appropriate curves, describe how price of a commodity would affect its demand and supply in the market. (5 marks)
b). Distinguish between movement along demand curve and shift in demand curve. (2 marks)
13. Using a simple model, describe the forces that influences stock size in any fishery (7 marks)