



MASEÑO UNIVERSITY

UNIVERSITY EXAMINATIONS 2012/2013

SECOND YEAR SECOND SEMESTER EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN AQUATIC RESOURCES CONSERVATION & DEVELOPMENT WITH INFORMATION TECHNOLOGY (MAIN CAMPUS)

SZA 210: MARINE FISHERIES

Date: 19th July, 2013

Time: 11.00 a.m. – 1.00 p.m.

INSTRUCTIONS:

1. Answer ALL questions in Section A (60 marks).
2. Answer ANY TWO questions in Section B (40 marks).
3. Illustrate answers with labeled diagrams whenever appropriate.

SZA 210: MARINE FISHERIES

Date Time

Instructions: Answer all the questions in **section A (60 marks)** and any two questions from **section B (40 marks)**. Illustrate answers with labeled diagrams whenever appropriate.

SECTION A (60 Marks)

Answer ALL the questions in this section

- Q1. With regard to marine fisheries, define the concept of optimum sustainable yield in terms of:
- (a). Population ecology and economics
 - (b). Environmental science
- Q2. Kenya's marine capture fisheries potential is estimated at 150,000 (one hundred and fifty thousand) metric tons while the current production averages only 7,000 (seven thousand) metric tons. Briefly state the cause of this scenario.
- Q3. Name any five marine protected areas in Kenya, and explain the basis for their establishment.
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- Q4. In terms of economic contributions by living marine resources to the Kenyan economy, name the species involved as follows:
- (a). five fin-fishes,
 - (b). three crustaceans
 - (c). two mollusks and
 - (d). one echinoderm
- Q5. State the management strategies that strive to limit the mortalities of the following non-target marine organisms: sharks, sea birds, and turtles.
- Q6. Write the following abbreviations in full and state how each is relevant in a named marine fisheries management.
- (a) EEZ
 - (b) TAC
 - (c) IPOA-IUU
 - (d) UNCLOS
 - (e) IOTC
- Q7. Use a well labeled diagram to show the structure of an otter trawl fishing gear and make a brief statement on its operation.
- Q8. Comment on the following statement, "Kenya has adequate incentives to invest in the mariculture of sea cucumbers".
- Q9. Name, describe and state global distribution of any three members of economically important marine fishes in the family Scombridae.
- Q10. Stating the species involved, compare contributions of marine demersal and pelagic fisheries toward Kenya's economy.

SECTION B (40 Marks)

Answer any TWO questions from this section

- Q11. Discuss the ecosystems approach to the management of marine fisheries resources

- Q12. Discuss maximum sustainable yield as a tool in the management of marine fisheries.
- Q13. Describe and explain the use of, target and limit reference points approach in the management of marine fisheries.
- Q14. Write an essay on the fisheries of the economically important marine shellfishes.

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