



MASENO 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 204: PLANKTON ECOLOGY

Date: 23rd July, 2013

Time: 11.00 a.m. – 1.00 p.m.

INSTRUCTIONS:

1. Answer ALL questions in Section A.
2. Answer ANY TWO questions in Section B.
3. Illustrate answers with labeled diagrams whenever appropriate.
4. Questions in each section carry equal marks.

SZA 204: PLANKTON ECOLOGY

Date Time

Instructions: - Answer ALL the questions in *Section A* and any TWO in *Section B*.
Illustrate answers with well labeled diagrams whenever appropriate. Questions in each section carry equal marks.

SECTION A (60 Marks)

Answer ALL the questions in this section

- Q1. Briefly explain the role plankton ecosystems play in the biogeochemical cycles.
 - Q2. Provide the names of major sub-groups of zooplankton giving examples within each sub-group.
 - Q3. Briefly explain how seasonal succession in Phytoplankton occurs.
 - Q4. Describe the grazing copepod cycle in the temperate zone.
 - Q5. Give a description of the salient features for Cyanophyta and Prochlorophyta algal divisions.
 - Q6. Give the distribution of algal divisions in the various habitats.
 - Q7. Give a description of mechanisms underlying algal periodicity
 - Q8. Explain phytoplankton biomass variability.
 - Q9. Provide importance of the biological pump.
 - Q10. Explain principles of Gross Primary Production (GPP).
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SECTION B (40 Marks)

Answer ANY TWO questions from this section

- Q11.** Giving examples, discuss plankton groupings.
 - Q12.** Provide summaries of the major groups of algae classified into Divisions.
 - Q13.** Discuss diel vertical migration in plankton.
 - Q14.** Describe primary production in an aquatic ecosystem and how it is estimated.
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