



KENYATTA UNIVERSITY

UNIVERSITY EXAMINATIONS 2011/2012

SECOND SEMESTER EXAMINATION FOR THE DEGREE OF SCIENCE (COASTAL AND MARINE RESOURCE MANAGEMENT)

SMR 203: INTRODUCTION TO PHYSICAL OCEANOGRAPHY

DATE: Tuesday 27th March 2012

TIME: 2.00p.m – 4.00p.m

INSTRUCTIONS

Answer ALL questions from Section A and any other ONE Question from Section B.
Illustrate your answers with diagrams where appropriate.

SECTION A: Answer ALL questions (40 marks)

1. Explain the terms; ocean water salinity and density.
2. Explain the relationships between any two properties of sea water.
3. Distinguish between geological and chemical oceanography.
4. Using an illustration, explain the global ocean heat budget.
5. Examine the different aspects of the ocean in the hydrological cycle.
6. Assess the impact of sea floor spreading.
7. Account for the spatial variation of Seas Surface Temperature (SSTs).
8. Explain the significance of acoustic properties of sea water.

SECTION B: Answer any ONE question (30 marks)

9. a) Describe ocean and atmosphere interaction.
b) Discuss the significance of ocean circulation.
10. Examine the consequences of climate change on selected properties of ocean water.
11. a) Explain in details why you would recommend the instrumentation of seawater properties.
b) Describe how any one ocean water property is instrumented.