TECHNICAL UNIVERSITY OF MOMBASA

Faculty of Applied & Health Sciences

Department of Environment & Health Sciences

University Examination for the Degree of Bachelor of Science in Marine
Resource Management

BSMR 14S/YEAR 2/SEMESTER 2

Code: AES 4211: RESOURCE ASSESSMENT AND MONITORING TOOLS PAPER 2

SEMESTER EXAMINATION

SERIES: MAY/2016

TIME: 2HRS

Instructions to Candidates

This paper consists of FIVE questions

Answer question ONE (COMPULSORY) and any other TWO questions

This paper consists of one printed pages

QUESTION ONE (30 MARKS)

a) (i) What is resource monitoring (1 mark)

   (ii) State the reasons why resource monitoring should be conducted (4 marks)

b) (i) Name any two relevant parameters that can be monitored in an ecological monitoring program (2 marks)

   (ii) Name the three types of resource monitoring protocols (3 marks)

c) (i) Define Geographical Information System (GIS) (2 marks)

   (ii) Differentiate between spatial and non-spatial data in GIS (3 marks)

d) State the typical questions that can be answered by a GIS (5 marks)

e) (i) Define Rapid Assessment Programmes (RAPs) (1 mark)

   (ii) State the reasons for conducting RAPs (4 marks)

f) (i) Define remote sensing (1 mark)

   (ii) List the characteristics that are used to identify remotely sensed objects (4 marks)

QUESTION TWO (20 MARKS)

Discuss the following methods used in Rapid Assessment Programmes (RAPs) or Rapid Ecological Assessments (REAs):

a)   Eye on the reef   (10 marks)

b)   Resilience Assessment   (10 marks)

QUESTION THREE (20 MARKS)

The Kenya Wildlife Service (KWS) has established monitoring programs for all Marine Protected Areas (MPAs) along the Kenya coast. Discuss the key elements that are associated with these monitoring programs (20 marks)

QUESTION FOUR (20 MARKS)

Discuss the following types of natural resource monitoring methods:

a)   Ecological resource monitoring   (10 marks)

b)   Community resource monitoring   (10 marks)

QUESTION FIVE (20 MARKS)

The Line Intercept Transect (LIT) is the most common method of sampling used in resource monitoring. Explain the main features associated with this method (20 marks)