



AMREF INTERNATIONAL TRAINING CENTRE

Qualification Code :
Qualification : Environmental Science Level 6
Unit Code : ENV/CU/SCI/CR/01/6/A
Unit of Competency : Ecological Monitoring and Assessment

WRITTEN ASSESSMENT

Time: 3 Hours

INSTRUCTIONS TO CANDIDATE

1. This paper has two sections A and B
2. You are provided with a separate answer booklet
3. Marks for each question are as indicated
4. Do not write on the question paper

This paper consists of five (3) printed pages. Candidates should check the question paper to ascertain that all the pages are printed as indicated

SECTION A: (40 MARKS)

Answer ALL the questions in this section

1. Define the term
 - a) Ecosystem (2 Marks)
 - b) Ecology (2 Marks)
2. Differentiate between ecological niche and ecological balance (4 Marks)
3. One of the key factors considered in environmental management is ecological monitoring. Highlight four importance of ecological monitoring and assessment to the environment (4 marks)
4. The ecosystem is broadly divided into two categories. Identify the two classes of ecosystems (4marks)
5. You are tasked to do ecological monitoring of a small region within a village. List down any four objects that you will use for monitoring (4 marks)
6. Four students were tasked to do an Environmental Impact Assessment for NEMA. Identify any four sampling strategies that they will use (4marks)
7. You are required to collect data for ecological monitoring. Mention any Four data collection methods you will apply (4 Marks)
8. As an environmental officer in an organization, you want the people within your department to do an environmental monitoring and evaluation. Highlight the Four indicators for the need of the assessment in the ecosystem (4marks)
9. Student Y wants to assess the nature of projects being done in his surroundings. Highlight any four characteristics of effective environmental monitoring parameters that the student will use (4marks)
10. A community can choose not to monitor and evaluate its environment and the projects taking place within. Mention any four consequences that the environment is likely to face as a result of neglecting the process (4marks)

SECTION B: (60 MARKS)

Answer any THREE questions in this section.

11. Ecological monitoring is vital in environmental management
 - a) Explain five ways in which ecological monitoring and assessment is applied in environmental management (10 Marks)
 - b) Giving examples, describe Five ecological monitoring techniques (10 Marks)

12. You have been tasked to educate the public on ecological monitoring
 - a) Explain the five stages involved in environmental monitoring (10 marks)
 - b) Analyse five importance of public participation during ecological monitoring and assessment (10 marks)

13. A group of students were assigned a project assignment to propose ideas on how a given ecosystem can be rehabilitated and restored
 - a) Discuss five factors they considered to determine the objectives of restoration and rehabilitation (10 Marks)
 - b) Explain five factors that will influence the implementation of the restoration and rehabilitation plan (10 Marks)

14. The world keeps evolving and new technologies keep emerging globally
 - a) Describe four emerging technologies with regards to environmental monitoring and assessment (8 Marks)
 - b) Explain six disadvantages of the emerging environmental monitoring technologies (12 Marks)