

**MAASAI MARA UNIVERSITY**

**REGULAR UNIVERSITY EXAMINATIONS**

 **2016/2017 ACADEMIC YEAR**

**THIRD YEAR FIRST SEMESTER**

**SCHOOL OF TOURISM AND NATURAL RESOURCE MANAGEMENT**

**BACHELOR IN ENVIRONMENTAL STUDIES**

**(ENVIRONMENTAL BIOLOGY AND HEALTH)**

**COURSE CODE: EBH 306**

**COURSE TITLE: ENVIRONMENTAL CHEMISTRY**

**DATE: 2ND FEBRUARY, 2017 TIME: 0830 – 1030HRS**

**INSTRUCTIONS TO CANDIDATES**

Answer **ALL** questions in section **A** and any other **THREE** in section **B.**

***This paper consists of 2 printed pages. Please turn over***

**SECTION A**

1. Gaseous atmospheric chemical component have several classification. Name five classification **(5marks)**
2. Explain why nitrogen cycling in wetlands progresses more rapidly where there is thin oxygenated soil layer present. **(3marks)**
3. What is nitrogen immobilization **(2marks)**
4. Climate change is currently one of the biggest global challenges due to high carbon levels in the atmosphere. Explain 3 different ways through which carbon is pumped back into the atmosphere **(6marks)**
5. What are the benefits of recycling? **(6marks)**
6. What challenges faces land filling as a waste disposal strategy.**(5marks)**
7. Explain two techniques (giving examples) used in soil remediation                                                                                             **(4marks)**
8. Why is monitoring an important practice? **(3marks)**

**SECTION B**

1. Assuming you are part of the Narok county, environmental committee. Give advice on how to deal with surface water pollution from non point sources **(10marks)**

b. Explain how a stabilization pond works **(5marks)**

1. Using diagrams, explain how a land fill cell works **(12marks)**

b. How is leachate management done **(3marks)**

1. Which factors should be considered before selecting a sampling methodology **(7marks)**

b. What is a constructed wetland? **(2marks)**

c. Name the constituent parts and their functions **(6marks)**

4. Where does ground water pollution come from? **(4marks)**

 b. How does thermal pollution affect aquatic ecosystems **(3marks)**

 c. Making use of a diagram, explain the phosphorous cycle **(8marks)**

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