



**NATIONAL OPEN UNIVERSITY OF NIGERIA
14-16 AHMADU BELLO WAY, VICTORIA ISLAND LAGOS
MARCH/APRIL 2016 EXAMINATION**

SCHOOL OF SCIENCE AND TECHNOLOGY

COURSE CODE: CHM 314:
COURSE TITLE: Environmental Chemistry

Time: 2 Hours

INSTRUCTION: Question one is compulsory, answer question one and any three questions.

QUESTION ONE

With the aid of chemical equation, explain the following:

- i.) The primary source of hydroxyl radical (OH) in the troposphere.
- ii.) Two roles of the hydroxyl radicals in the troposphere that could result in environmental degradation.

(25 MARKS)

QUESTION TWO

Explain briefly the consequences on the atmosphere (stratosphere) the increased use of fertilizers.

(15 MARKS)

QUESTION THREE

- a.) What are the modes of chemical pollutant release?
- b.) Planting of trees has been advocated as a means/method of removing CO₂ emitted into the environment. Explain how this can be achieved by plants.
(15 MARKS)

QUESTION FOUR

Write briefly on soil pollution by heavy metals.
(15 MARKS)

QUESTION FIVE

- a.) What is incineration?
- b.) State two advantages and two disadvantages of incineration.
(15 MARKS)

QUESTION SIX

- a.) Discuss briefly the causes of colour in water.
- b.) How can negatively charged colloidal particles be removed from water.
- c.) Differentiate between apparent colour and true colour.
(15 MARKS)