

**W1-2-60-1-6**

**JOMO KENYATTA UNIVERSITY OF AGRICULTURE AND TECHNOLOGY**

**UNIVERSITY EXAMINATIONS 2014/2015**

**SPECIAL/SUPPLEMENTARY YEAR IV SEMESTER I EXAMINATION FOR THE DEGREE OF BACHELOR OF SCIENCE IN PUBLIC HEALTH**

**IPH 2403: ENVIRONMENTAL POLLUTION**

**DATE:DECEMBER 2014 TIME: 2 HOURS**

**INSTRUCTIONS:** Answer all questions in Section A and one question in Section B.

SECTION A 48 MARKS

QUESTION ONE

Describe the following terms and their importance

a. Epoxidation. (2 marks)

b. Hydroylsis. (2 marks)

c. Conjugation. (3 marks)

QUESTION TWO

Sulphur is one of the pollutants in the atmosphere. Briefly indicate how sulphur can be removed from the atmosphere. (8 marks)

QUESTION THREE

Identify and explain four categories of carcinogenic agents. (4 marks)

QUESTION FOUR

Briefly discuss white phosphorus as a toxic agent. (6 marks)

QUESTION FIVE

Giving a case study, discuss the sources and biologic effects of mercury to an organism.

 (8 marks)

QUESTION SIX

Differentiate between point source and dispersed source pollutants. (4 marks)

QUESTION SEVEN

Identify and discuss four sources of groundnuts pollution. (8 marks)

QUESTION EIGHT

Identify and discuss four ways pollution can be prevented or managed in a work place. Give specific examples. (4 marks)

QUESTION NINE

a. Define the term environmental chemistry. (2 marks)

b. Using a diagram show the interchange of pollutant species in the atmosphere, hydrosphere, geosphere and biosphere. (12 marks)

c. Discuss major processes that particulate matter undergo in the atmosphere.

 (8 marks)

QUESTION TEN

Municipal waste are major causes of pollution. Discuss the sources and management of municipal waste. Indicate challenges facing its management and why organizations are currently investing in municipal wastes. (22 marks)

QUESTION ELEVEN

a Describe the green house effect. (6 marks)

b. Highlight four types of particulate collectors. (8 marks)

c. Briefly discuss what the government can do reduce pollution of the environment. (8 marks)