



UNIVERSITY OF SWAZILAND
Faculty of Health Science

Department of Environmental Health
Sciences

Final Examination 2009

Title of paper: Introduction to Air Pollution

Course code: EHS 314

Time allowed: 2 hours

Marks allocation: 100 Marks

Instructions:

- 1) Read the questions and instructions carefully
- 2) Answer Four (4) questions
- 3) Each question is weighted 25 marks
- 4) Write neatly and clearly
- 5) Begin each question on a separate sheet of paper

This paper is not to be opened until the invigilator has granted
permission

QUESTION 1

- a) Mention the 3 major air pollution disasters and then discuss about the one that happened in the USA. (10)**
- b) What are the key lessons learnt from the 3 major air pollution episodes (5)**
- c) Define the following terms as related to air pollution and control (10)**
 - Emission factor**
 - Emission standards**
 - Emission rate**
 - Visibility reducing particles**
 - Emission inventory**

QUESTION 2

- a) Why do we carry out air pollution monitoring (16)**
- b) What is the difference between biogenic and anthropogenic pollutants, in each case give 3 examples (9)**

QUESTION 3

- a) Discuss in sequence the processes undergone by air pollutants (12)**
- b) Define weight of evidence (8)**
- c) List 5 effects caused by air pollution on vegetation. (5)**

QUESTION 4

- a. Differentiate between global warming and the greenhouse effect? (12)**
- b. Write short notes on persistent organic pollutant (10)**
- c. What is acid rain? (3)**

QUESTION 5

- a) What are the conditions that are best for the creation of ozone concentration? (6)**
- b) Smog is divided into 2, what are they? (4)**
- c) In a computer model dispersion is calculated by means of different parameters, name them. (5)**
- d) Rain removes pollutants from air, but it indirectly causes other problems, what are they? (3)**