



UNIVERSITY OF SWAZILAND
Faculty of Health Science

Department of Environmental Health
Sciences

Final Examination 2007

- TITLE OF PAPER : AIR SAMPLING AND ANALYSIS
- COURSE CODE : EHS 533
- DURATION : 3 HOURS
- MARKS : 100
- INSTRUCTIONS : READ THE QUESTIONS & INSTRUCTIONS CAREFULLY
- : ANSWER ANY FIVE QUESTIONS
- : EACH QUESTION CARRIES 20 MARKS
- : NO PAPER SHOULD BE BROUGHT INTO NOR OUT OF THE EXAMINATION ROOM
- : BEGIN EACH QUESTION ON A SEPARATE SHEET OF PAPER

DO NOT OPEN THE QUESTION PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

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Answer 5 questions

Question 1

- a) What are gases and vapors? [6 Marks]
- b) What is passive sampling? [2 Marks]
- c) Explain the devices that utilize passive sampling for gases and vapors. [12 Marks]

Question 2

In relation to respirators

- a) Explain the types of respirators [12 Marks]
- b) Explain the testing methods [8 Marks]

Question 3

Explain 5 types of airborne particulates.

[20 Marks]

Question 4

It is important for a worker to know about the chemical he/she is using at the workplace: What document can help him know about the chemical and what is its importance?

[20 Marks]

Question 5

- a) Explain the dangerous characteristics of chemicals [2 Marks]
- b) Briefly explain the body's defence mechanism to inhaled substances or particles that are unhealthy. [6 Marks]
- c) Briefly explain the body's defence mechanism to ingested substances or particles that are unhealthy. [6 Marks]
- d) Briefly explain the body's defence mechanism to substances or particles that penetrate the skin that are unhealthy. [6 Marks]

[6 Marks]

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Question 6

- a) What is the importance of sampling airborne contaminants? [15 Marks]
- b) Define OEL [3 Marks]
- c) Define AL [2 Marks]