



UNIVERSITY OF SWAZILAND
Faculty of Health Science

Department of Environmental Health
Sciences

Final Examination 2009

Title of paper: Industrial Hygiene Aspect of Plant Operation 1

Course code: EHS 562

Time allowed: 2 hours

Marks allocation: 100 Marks

Instructions:

- 1) Read the questions and instructions carefully
- 2) Answer ANY 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

Answer all questions

Question 1

The construction industry is increasing at an alarming rate in the Kingdom of Swaziland. Construction poses numerous hazards to the worker and the environment.

- a) Outline 5 physical hazards that employees are exposed to and how the hazards can be controlled. Give 2 examples in each.

[15 Marks]

- b) Explain 2 health hazards that employees are exposed to and how they can be prevented. Give 2 examples in each

[10 Marks]

Question 2

Define the following terms:

- a) Industrial hygiene

[3 Marks]

- b) Prime movers and transmission devices in a machine

[4 Marks]

- c) Escalators and their hazards

[5 Marks]

- d) Functions of an industrial hygienist

[10 Marks]

- e) Safety file in the construction industry

[3 Marks]

Question 3

Farming is a prominent industry in the Kingdom. Farming is mainly at small scale and poses a number of hazards that the operators may not be aware of.

- (i) Explain 2 mechanical hazards in crop farming. Give examples

[6 Marks]

- (ii) Give 4 reasons why farmers have to handle animals

[4 Marks]

- (iii) Using examples, discuss 3 health hazards associated with handling animals

[15 Marks]

Question 4

In a workshop there are a number of tools and machinery that are used when repairing or maintaining equipment. Housekeeping is very poor: there are cables, oil spillages and objects all over the floor; moving and rotating parts in some machines are not covered; operators are not given any personal protective equipment or clothing.

- a) From the above statement, list the hazards in this workshop [5 Marks]
- b) Assess the risks of the hazards you identified in (a) above in terms of severity and probability, rank them [10 Marks]
- c) Outline possible control measures to each of the assessed hazards [10 Marks]