

**University of Swaziland  
Faculty of Health Sciences  
Department of Environmental Health Science  
July 2015 Supplementary Examination**

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**Title of Paper: Principles of Occupational Safety and Health.**

**Course Code: EHM 211**

**Time Allowed: 2 Hours**

**Marks Allocation: 100 Marks**

**Instructions:**

- **Read the questions and Instructions carefully.**
- **Answer all questions**
- **Each question carries 25 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 THIS PAPER UNTIL PERMISSION IS GRANTED  
BY THE INVIGILATOR**

**Question 1:**

- a) What is meant by Occupational Hygiene? **(4 marks)**
- b) Define the following terms used in occupational hygiene and safety.
- i) Permissible Exposure Level (PEL) **(2 marks)**
  - ii) Immediately Dangerous to Life or Health (IDLH) **(2 marks)**
  - iii) Time Weighted Average (TWA) **(2 marks)**
- c) What is a material safety data sheet (MSDS)? and List any five (5) items that may be listed in MSDS **(10 marks)**
- d) List any five (5) types of injury that may be caused of incorrect manual handling of loads. **(5 marks)**

**(Total = 25 marks)**

**Question 2:**

- a) Outline five (5) main categories of guards and safe guarding devices that may be used to minimize the risk of contact with dangerous parts of machinery. **(5 marks)**
- b) The protection of chemical hazards relies on the basic principles and policies of substitution, enclosure of process, controlled exposure and personal protection. Discuss these principles in detail and give examples on each.

**(20 marks)**

**(Total = 25 marks)**

**Question 3:**

- a) Outline the hazard recognition procedure **(12 marks)**
- b) Discuss the differences between irritant contact dermatitis and allergic contact dermatitis **(8 marks)**
- c) What is the difference between a mutagen and a teratogen **(5 marks)**

**Question 4:**

- a) Outline the component of a workplace Health and Safety Risk Management **(10 marks)**
- b) List the factors that make children vulnerable to chemicals. **(10 marks)**
- c) What is child labour? And briefly discuss its effects. **(5 marks)**

**(Total = 25 marks)**