

**University of Swaziland  
Faculty of Health Sciences  
Department of Environmental Health Science  
May 2015 Main Examination**

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**Title of Paper: Risk Assessment, Management, and  
Communication**

**Course Code: EHS 568**

**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.**

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BY THE INVIGILATOR**

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**Question 1:**

- a) What is meant by risk communication? **(4 marks)**
- b) Outline the steps involved in good risk communication **(6 marks)**
- c) Outline ten (10) deadly sins of presenting a risk to a group of people. **(10 marks)**
- d) Before undertaking a risk communication it is important to design a risk communication strategy. Outline the factors you would take into consideration. **(5 marks)**

**(Total = 25 marks)**

**Question 2:**

- a) Outline the hierarchy of controls and briefly discuss the advantages and/or disadvantages of each. Your discussion should also indicate effectiveness of control and the business value they present. **(15 marks)**
- b) Give an outline of the components of a workplace Health and Safety Risk Management. **(10 marks)**

**(Total = 25 marks)**

**Question 3:**

Read the following case study and answer the questions below:

**Risk Assessment for maintenance work in a factory**

ABC Engineering manufacture parts for the motor industry. The company employs 40 people on a site built in the 1990s.

The managing director reviewed the company's health and safety arrangements and found that although risk assessments for the production, storage and distribution of products were done and the necessary risk control measures had been put in place, no risk assessment had been done and measures had been put in place, no risk assessment had been done and recorded for maintenance work in the factory. The Managing Director (MD) told the maintenance manager (the 'fitter') to do this risk assessment and to put its findings into practice.

Where possible, maintenance work at the factory is done in-house by the fitter. His main job is to support production by, for example, maintaining plant,

machinery and tools and undertaking minor jobs on the building fabric. The company also uses outside contractors, for example for most building repairs, detailed repairs to machinery, and most electrical work and work on the Local Exhaust Ventilation (LEV) system. The fitter's job includes the selection of contractors and with the works manager, the oversight of their work.

The fitter works out of a small workshop, which has some basic engineering machinery, a welding kit and secure storage for solvents and flammables. His work, however, takes him to all parts of the factory.

Discuss how you would undertake a simple risk assessment of the above premises. Your discussion should include the following:

- i) The types of hazards
- ii) Who might be harmed by the hazard and how?
- iii) What action is necessary
- iv) Who should take the action
- v) And any other pertinent questions answer.

**(25 marks)**

**Question 4:**

- a) What is the difference between an accident and an incident? **(5 marks)**
- b) Who should undertake an accident investigation, you may refer to the Swaziland Occupational Safety and Health act 2001. **(5 marks)**
- c) Discuss in detail the accident causation model. **(15 marks)**

**(Total = 25 marks)**