

**UNIVERSITY OF SWAZILAND**  
Faculty of Health Science

Department of Environmental Health Sciences

Final Examination 2010/2011

Title of paper: Risk Assessment, Management and Communication I

Course code: EHS 567

Time allowed: 2 hours

Marks allocation: 100 Marks

Instructions:

- 1) Read the questions and instructions carefully
- 2) Answer ALL questions
- 3) Each question is weighted 25 marks
- 4) Write neatly and clearly

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

**Answer ALL questions**

**QUESTION 1**

i) In relation to hazard identification methods:

a) What is an Inductive approach [3 Marks]

b) What is a Deductive approach [3 Marks]

ii) In relation to risk assessment

a) How can you define severity of a hazard [4 Marks]

b) How can you define likelihood of occurrence [5 Marks]

c) Outline the matrix for prioritizing intervention and its interpretation [10 Marks]

**QUESTION 2**

a) Define a task and its characteristics. [5 Marks]

b) Outline the phases of a system life cycle. [8 Marks]

c) Outline the 6 categories that are addressed by task analysis. [12 Marks]

**QUESTION 3**

Briefly discuss any five (5) of the following risk-identification methods.

- Hazard and Operability
- Preliminary Hazard Analysis
- Failure Mode and Effect Analysis
- Fault Tree Analysis
- Fault or Functional Hazard Analysis
- Job Safety Analysis

[25 Marks]

**QUESTION 4**

a) What is Hierarchical Task Analysis?

[5 Marks]

b) Using an example of your choice prepare a hierarchical task analysis and present it in both table form and diagram.

[20 Marks]