



**UNIVERSITY OF SWAZILAND**  
**Faculty of Health Sciences**  
**Department of Environmental Health Science**  
**May Main Examination, 2014**

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**Title of paper: HEALTH RISK ASSESSMENT**

**Course code: EHM 312**

**Time allowed: 2 HOURS**

**Marks allocation: 100 Marks**

**Instructions:**

- 1) Answer ANY FOUR (4) questions**
- 2) Each question is weighted 25 marks**
- 3) Write neatly and clearly**
- 4) Begin each question on a separate sheet of paper**

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

### QUESTION ONE

Define these terms as they apply to risk management.

- (a) A part (3)
- (b) A unit (3)
- (c) A subsystem (3)
- (d) A system (3)
- (e) What is a system accident? (5)
- (f) Outline the different categories of victims as they apply in a system accident (8)

### QUESTION TWO

- (a) Outline the historical (past and present) changes that have been observed in risk assessment and management in recent times (15 Marks)
- (b) What questions should be asked before embarking on a biological monitoring exercise in a health risk assessment? ( 10 Marks)

### QUESTION THREE

- (a) Differentiate between a hazard and a risk (4)
- (b) Outline the steps involved in an occupational risk assessment procedure (10 marks)
- (c) Outline control measures used in occupational settings to avoid injury, disease and/or death (11 Marks)

### QUESTION FOUR

- (a) Under exposure risk assessment name the three broad processes and activities that generate the majority of exposures in the workplace. Under each category list the activities that give rise to different exposures ( 15 Marks)
- (b) In exposure assessment, there are usually complicating factors that complicate the process of understanding exposure. What are these factors? (4 Marks)
- (c) What are the health effects of the under-listed dusts
  - i. Silica dust (3 Marks)
  - ii. Coal dust (3 Marks)

## QUESTION FIVE

(a) Certain people are presenting with symptoms of the under-listed diseases at the Outpatient Department at the Mbabane Government Hospital. Trace each disease in terms of exposure (people exposed and how they might have acquired the disease) back to its source.

1. Tuberculosis ( 5 Marks)
2. New variant Crutzefeldt Jacob's Disease (nv CJD) ( 5 Marks)
3. Legionnaires disease ( 5 Marks)
4. Hepatitis B ( 5 Marks)
5. Q Fever ( 5 Marks)