



UNIVERSITY OF SWAZILAND

FACULTY OF HEALTH SCIENCES

DEPARTMENT OF ENVIRONMENTAL HEALTH SCIENCE

BSc DEGREE IN ENVIRONMENTAL HEALTH SCIENCES

SUPPLEMENTARY EXAMINATION, JULY, 2017

TITLE OF PAPER : HEALTH RISK MANAGEMENT

COURSE CODE : EHM 312

TIME : 2 HOURS

TOTAL MARKS : 100

INSTRUCTIONS:

- 1. QUESTION 1 IS COMPULSORY**
- 2. ANSWER ANY OTHER THREE QUESTIONS**
- 3. ALL QUESTIONS ARE WORTH 25 MARKS EACH**
- 4. BEGIN THE ANSWER TO EACH QUESTION IN A SEPARATE SHEET OF PAPER.**

DO NO OPEN THIS EXAMINATION PAPER UNTIL PERMISSION HAS BEEN GRANTED BY THE INVIGILATOR.

QUESTION 1

- a) The risk of hearing loss from high noise environments depends on the noise level and the length of time of exposure.
- b) The conduct of occupational hygiene surveys and studies is only one phase in the overall effort in determining occupational health hazards.
- c) Dose-response assessment is the relationship between level and probability of effect
- d) Improvement in the workplace conditions and increase of illness or disability are due to actions within the workplace and result from the implementation of risk prevention and control measures.
- e) Occupational Exposure Limit (OEL) is the airborne concentration of chemical agents and levels of physical agents and represents conditions under which it is believed that nearly all workers may be repeatedly exposed day after day with adverse effect.
- f) Ergonomics is the science of fitting workplace conditions and job demands to the capabilities of the working population.
- g) Risk management is synonymous with hazard identification and risk assessment.
- h) The risk of hearing loss from high noise environments depends on the noise level and the length of time of exposure.
- i) The conduct of occupational hygiene surveys and studies is only one phase in the overall effort in determining occupational health hazards.
- j) The risk assessment process ensures that factors influencing health are fully understood and adequately quantified so that decisions are taken in a consistent and cost-effective manner.
- k) One of the most important aspects of risk assessment is accurately identifying the potential hazards in the workplace

(22 marks)

II.

Define prevalence as applied in occupational health

(3 marks)

QUESTION 2

- a) Define occupational health
- b) Define occupational health services
- c) Describe administration controls under the following headings:
 - i. Employee rotation and reduction of exposure times

(3 marks)

(3 marks)

(5 marks)

- ii. Housekeeping (5 marks)
- iii. Personal hygiene (4 marks)
- iv. Maintenance programs (5 marks)

QUESTION 3

- a) Describe air-borne pollutants and give one example of each and stipulate its source and an occupational health problem or disease associated with it. (10 marks)
- b) Describe a health and safety risk management framework (15 marks)

QUESTION 4

- i. Define the following types of contaminants:
 - a) Aerosol [2]
 - b) Dust [2]
 - c) Fumes [2]
 - d) Smoke [2]
 - e) Mist [2]
 - f) Vapour [2]
 - g) Gas [2](14 marks)
- ii. Describe risk assessment under the following headings:
 - a) Definition of a risk assessment (2 marks)
 - b) Importance of risk assessment (3 marks)
 - c) How is a risk assessment carried out? (3 marks)
 - d) How are hazards identified? (3 marks)

QUESTION 5

- a) Describe four characteristics of successful emission and exposure controls (8 marks)
- b) Describe the elements of an effective occupation health management policy. (5 marks)
- c) Describe the purpose of an occupational health assessment (10 marks)
- d) Describe risk communication (2 marks)