

UNIVERSITY OF SWAZILAND
Faculty of Health Sciences

**BSc DEGREE IN ENVIRONMENTAL
HEALTH SCIENCES**

MAIN EXAMINATION PAPER MAY 2015

TITLE OF PAPER: Environmental Pollution
Management

COURSE CODE : EHM 307

DURATION : 2 HOURS

MARKS : 100

INSTRUCTIONS : ANSWER ANY FOUR QUESTIONS

: EACH QUESTION CARRIES 25 MARKS

: BEGIN EACH QUESTION ON A SEPARATE SHEET
OF PAPER

DO NOT OPEN THIS QUESTION PAPER UNTIL PERMISSION IS GRANTED
BY THE INVIGILATOR

EHM 307P MAY 2015 Environmental Pollution Management Main Exam Paper

QUESTION ONE

- a) There are several tools that can be applied in environmental pollution prevention and control. Describe any two including details about their application thereof. [10]
- b) Is the use of plastics justified? Discuss five negative aspects about plastics in the environment. [10]
- c) You are employed as a marine environmental manager in one of the important shores of Sydney. An oil spill accident occurs in one of the areas under your jurisdiction. What five factors would you focus on in order to evaluate the extent of the damage by the oil spill? [5]

QUESTION TWO

- a) Discuss how human behaviour is continually shaped by theories of environmental responsibility. [9]
- b) Give three factors that determine how pollutants reach ground water [3]
- c) What are the significant impacts of thermal pollution in water bodies? [3]
- d) Differentiate between the Basel Convention and the Stockholm Convention. [5]
- e) Define the following terms related to environmental pollution: [5]
- Eutrophication
 - Bioremediation
 - Biomagnification
 - Bioaccumulation
 - bioconcentration

QUESTION THREE

- a) With examples for each outline at least seven causes of water pollution [7]
- b) How do the following methods help in controlling oil spills in open seas : [10]
- radar systems
 - collision avoidance
 - inspection and certification
 - cleaning of crude oil
 - ballast tanks
- d) List the pieces of legislation that constitute statutory control of pollution in general [8]

QUESTION FOUR

- a) According to Aktar *e-tal* (2009), a pesticide is a chemical agent used to deter, incapacitate, destroy or otherwise discourage pests. Typically, pesticides are categorized according to target organisms and chemical family. Give five names under each categorization to demonstrate your understanding of these pesticides classification systems [10]
- b) Under appropriate categories list the twenty two persistent organic pollutants (POPs) of concern under the Stockholm Convention and explain why the whole world should be concerned about POPs. [11]
- c) What do the following acronyms stand for in environmental management [4]
- BAT
 - BEP
 - ALARA
 - BATNEEC

QUESTION FIVE

- a) With concrete examples drawn from Swaziland give examples of sources of hazardous waste [11]
- b) Differentiate between soil pollution and land pollution [6]
- c) It is important for Municipal Environmental Pollution Managers to understand the concepts on the waste hierarchy, waste life cycle and categories of environmental management tools. Using appropriate graphics and or tables describe waste hierarchy and categories environmental management tools. [8]
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