

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

FACULTY OF APPLIED SCIENCES

DEPARTMENT OF ENVIRONMENTAL SCIENCE AND HEALTH

FINAL EXAMINATIONS

ENVIRONMENTAL HEALTH: ESH 2105

January 2013

Time Allowed: 3 Hours

Total Marks 100

INSTRUCTIONS TO CANDIDATES:

Answer Question 1 in Section A and any Three Questions in Section B

SECTION A

Question 1

- a) Describe the main facets of environmental health **(10 marks)**
- b) Briefly describe the obligations of a local authority relating to water supply as enshrined in the Public Health Act Chapter 15:09 of Zimbabwe. **(15 marks)**

SECTION B

Question 1

The Bulawayo City Council declared a water emergency early August 2012 as officials announced shock water rationing measures set to result in water supplies cut to some residents for 24 hours, twice a week. Discuss the public health implications surrounding this decision.

Question 2

- a) Describe the various roles of an Environmental Health Officer in food quality monitoring. **(15 marks)**
- b) Describe the critical environmental health measures that should be put in place in the event of a natural disaster so as to ensure public health. **(10 marks)**

Question 3

Below is an extract from an online article published on the ZIMDIASPORA Newspaper dated 25/07/2012:

“A typhoid outbreak has hit Harare and Chitungwiza, with at least 111 confirmed cases by yesterday. City officials attributed the outbreak to water shortages in the city and its satellite towns of Chitungwiza, Norton, Ruwa and Epworth. Chitungwiza, Norton, Ruwa and Epworth receive water from Harare whose water treatment plant is facing mechanical problems. The majority of the cases are in Chitungwiza where at least 83 people were treated for the disease.”

Critically analyse this extract, identifying the major environmental health issues in the concerned communities and suggest practical interventions to address the issues you identified.

Question 5

“Until effective standards for the domestic environment are devised, it is likely that children will continue to be employed as biological indicators of substandard housing.” Relative to housing and planning standards, discuss this statement by Donald Barltrop.

Question 6

- a) Discuss the objectives of the Environmental Health Department in Zimbabwe. **(15 marks)**
- b) Give a comparative analysis of the various solid waste treatment and disposal methods used to ensure prevention of public health nuisance. **(10 marks)**

End of question Paper

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ENVIRONMENTAL HEALTH: ESH 2105

Year 2013

Time Allowed: 3 Hours

Total Marks 100

INSTRUCTIONS TO CANDIDATES:

Answer any FOUR questions. Each question carries 25 marks

Question 1

- a) Describe the composition of, functions and services provided by the Environmental Health Department in Zimbabwe. **(15 marks)**
- b) Briefly discuss the various facets of Environmental Health. **(10 marks)**

Question 2

With the aid of practical examples, discuss the impacts of uncontrolled construction of houses on health in Zimbabwe.

Question 3

Select one water-borne disease and discuss it under the following headings:

- a) causative organism and mode of transmission **(10 marks)**
- b) prevention and control **(15 marks)**

Question 4

“The City of Bulawayo has been experiencing serious water shortages of late marked by prolonged water shedding schedules which have seriously impacted on the sewer reticulation system leading to numerous sewer blockages and bursts.”

Analyse this statement and identify major environmental health issues related to this scenario and suggest practical potential interventions to address the issues you identified.

Question 5

Describe and explain the critical aspects of premises and food inspection highlighting the legal provisions for this function in the Public Health Act 15:09 and other relevant legislation.

Question 6

Discuss (with justification) the various on-site liquid waste treatment technologies you can recommend for implementation to ensure public health in a remote location such as Murewa Rural District Council.

End of Question Paper