

**NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY**

**FACULTY OF APPLIED SCIENCES**

**DEPARTMENT OF ENVIRONMENTAL SCIENCE AND HEALTH**

**FINAL EXAMINATION**

**AIR AND NOISE POLLUTION: ESH 4212**

**May 2012**

**Time Allowed: 3 hours**

**Total Marks: 100**

**INSTRUCTIONS:**

**Answer any FOUR questions. Each question carries 25 marks.**

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**Question 1**

- (a) Describe the effect of chlorofluorocarbons entering the atmosphere. (15 marks)  
(b) Describe and explain the difference between stable atmosphere and unstable atmosphere. (10 marks)

**Question 2**

Discuss the concept of The Hierarchy of control in implementation of environmental noise reduction strategies.

**Question 3**

Analyse the major air pollution concerns on the global scale.

**Question 4**

- (a) Give an assessment of the effects of noise pollution on the environment. (12 marks)  
(b) Explore a detailed analysis of cleaner production ways that can be adopted in the quest to promote sustainable development as far as air noise pollution is concerned. (13 marks)

**Question 5**

Give a detailed analysis of cleaner production ways that can be adopted in the quest to promote sustainable development as far as air and noise pollution is concerned.

**Question 6**

Evaluate the effectiveness of air pollution mitigating and management strategies used in Zimbabwe

**End of paper**

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**BACHELOR OF ENVIRONMENTAL SCIENCE HONOURS DEGREE**  
**SUPPLEMENTARY EXAMINATIONS**  
**AIR AND NOISE POLLUTION: ESH 4212**

July 2012

Time allowed: 3 Hours

Total Marks: 100

**INSTRUCTIONS:**

**Answer any FOUR questions. Each question carries 25 marks.**

**Question 1**

Discuss the potential effects of ozone depletion and global warming. Give examples of areas likely to be affected.

**Question 2**

Pollution control does not need administrative framework because it is basically a technical problem. Discuss.

**Question 3**

- a) Outline the major types and sources of air pollution. (10 marks)  
b) How can air pollution from these sources be controlled? (15 marks)

**Question 4**

Analyse the effectiveness of Zimbabwean legal and institutional frameworks in controlling air and noise pollution.

**Question 5**

- a) Briefly describe how you would achieve noise reduction by the use of barriers (5 marks)  
b) Describe the use of Noise Rating (NR) curves in environmental noise control. (10 marks)  
c) Explain the effects of Environmental noise on aquatic ecosystems. (10 marks)

**Question 6**

Discuss the effect of wind and temperature in the refraction of sound waves.

End of Question Paper

