

BINDURA UNIVERSITY OF SCIENCE EDUCATION
FACULTY OF AGRICULTURE AND ENVIRONMENTAL SCIENCES
DEPARTMENT OF ENVIRONMENTAL SCIENCES
BACHELOR OF SCIENCE HONOURS DEGREE IN SAFETY, HEALTH AND
ENVIRONMENTAL MANAGEMENT

ESM116 (3): INTRODUCTION TO ENVIRONMENTAL SCIENCE

DURATION: 2 HRS

TOTAL MARKS: 70

INSTRUCTIONS TO CANDIDATES

Answer question 1 and any other two.

OCT 2024

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1. (a) Define the following:
 - (i) Environmental management, [2 Marks]
 - (ii) Biological oxygen demand, [2 Marks]
 - (iii) Eutrophication, [2 Marks]
 - (iv) Greenhouse gas, [2 Marks]
 - (v) Particulate matter. [2 Marks]
 - (b) Explain the causes of soil erosion. [10 Marks]
 - (c) Outline the potential impacts of climate change on Zimbabwe's natural resources. [10 Marks]
 2. (a) Using appropriate chemical equations, describe the processes involved during formation and destruction of ozone in the stratosphere. [10 Marks]
 - (b) Explain how urbanization has contributed to water pollution in Zimbabwe. [10 Marks]
 3. (a) Describe the role of wetlands in purification of polluted aquatic systems. [5 Marks]
 - (b) Describe the sources, transformations and sinks for any five environmental pollutants. [15 Marks]
 4. Anthropogenic processes are more responsible for climate change impacts than natural processes. Discuss. [20 Marks]

5. Discuss the socio-economic and environmental advantages and disadvantages of mining for a country.

[20 Marks]

END OF PAPER