

CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

**THIRD YEAR EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR
OF SCIENCE IN PUBLIC HEALTH**

PUHE 238: ENVIRONMENTAL POLLUTION & CONTROL

STREAMS: PUHE Y2S2

TIME:2 HOURS

DAY/DATE: THURSDAY 13/04/2023

11.30 A.M. –1.30 P.M.

INSTRUCTIONS

1. Do not write anything on the question paper.
2. Mobile phones and any other reference materials are NOT allowed in the examination room.
3. The paper has three sections. Answer ALL questions in Sections I, II and III.
4. All your answers for Section I (MCQs) should be on one page.
5. Number ALL your answers and indicate the order of appearance in the space provided in the cover page of the examination answer booklet.
6. Write your answers legibly and use your time wisely

SECTION 1: MULTIPLE CHOICE QUESTIONS [10 MARKS]

1. Ozone depletion is caused due to increase in the level of
 - (a) Water vapour
 - (b) Oxygen
 - (c) Chlorofluorocarbon
 - (d) Carbon monoxide
2. What type of chemical weathering is enhanced by acid rain?
 - (a) Hydrolysis
 - (b) Dissolution
 - (c) Oxidation
 - (d) None of the above

3. What process causes the disintegration of rock at or near the earth's surface?
- (a) Physical weathering
 - (b) Chemical weathering
 - (c) Erosion
 - (d) None of the above
4. Which of the following gas affects human health by reducing the blood's ability to carry oxygen to different parts of the body?
- (a) Carbon monoxide
 - (b) Carbon dioxide
 - (c) Sulphur dioxide
 - (d) Nitrous dioxide
5. Nitrogen oxide affects human health by _____
- (a) Causing irritation to the eyes and skin
 - (b) Aggravating asthma problem
 - (c) Decreasing blood's ability to transport oxygen
 - (d) None of the above
6. Which of the following is the main discharge from coal based power plants (thermal plants)?
- (a) SPM
 - (b) Smog
 - (c) Fly ash
7. The best way to dispose plant waste is _____
- (a) Burning
 - (b) Composting
 - (c) Dumping in a hilly area
 - (d) Incineration
8. Which of the following is not one of the major environment problems resulting from human interference in the nitrogen cycle?
- (a) Global warming due to release of nitrous oxide
 - (b) Acid rain
 - (c) Eutrophication
 - (d) Ozone depletion

9. Which of the following is not a major greenhouse gas _____

- (a) Carbon dioxide
- (c) Methane
- (b) Water vapour
- (d) Calcium carbonate

10. Montreal Protocol signed in 1987 was signed to _____

- (a) Phase out the use of CFC's which cause depletion of the ozone layer
- (b) Reduces the greenhouse effect
- (c) Protect endangered species
- (d) Ban nuclear testing in tropical oceans

SECTION II: SHORT ANSWER QUESTIONS [40 MARKS]

1. Define the following terms

- a) Pollution [1 marks]
- b) Eutrophication [2 marks]
- c) Bio-magnification [2 marks]

2. State four (5) types of pollutants which can affect health of populations within Kenyan cities [5 marks].

3. State five (5) key sources of environmental pollutants and how they affect the environment [5 marks]

4. Climate change is real and the effects are being felt in the planet. Explain the process of photochemical smog formation [5 marks]

5. Explain five (5) effects of air pollution following the current climatic transition [5 marks]

6. State five (5) Acts of parliament of Kenya enforced in prevention of environmental pollution (5 Marks)

7. Discuss five (5) particulate matter pollutants and their effects to the Environment [10 marks]

SECTION III: LONG ANSWER QUESTIONS [20 MARKS]

1. Global warming is a serious topic of today for all the countries in the world. Describe the legal framework provided for Environmental pollution Prevention & Control in the world [20 marks]
