

**Bago University**  
**Department of Chemistry**  
**Second Semester Examination, September 2019**

**Third Year**  
**(Chemistry Specialization)**  
**Answer any six Questions**

**Chem 3111**  
**Environmental Chemistry**  
**Time Allowed: (3) hours**

1. (a) Fill in the blanks with the correct word(s), unit(s), and etc., as necessary.
  - (i) In the troposphere region, temperature decreases with \_\_\_\_\_ altitude.
  - (ii) Zinc is also an important cell component in several \_\_\_\_\_.
  - (iii) Arsenic is poisonous to fishes, animals and \_\_\_\_\_.
  - (iv) The length of time, water typically spends in a compartment is called \_\_\_\_\_.
  - (v) Health is a state of complete \_\_\_\_\_, mental and social well-being.
  - (vi) Trihalomethanes are products of water \_\_\_\_\_.(b) Select the correct statement(s), word(s), unit(s) and etc., given in the followings.
  - (i) Ozone layer is found in the (stratosphere, troposphere, ionosphere).
  - (ii) When nitrogen is deposited on the soil, it can act to promote (plant, animals, sulphur) growth.
  - (iii) Man has greatly amplified the concentration of heavy metals in his (environment, muscle, lungs).
  - (iv) Areas where water infiltrates into an aquifer are called (zone of saturation, artesian well, recharge zones).
  - (v) (Mutagens, Teratogens, Carcinogens) are substances that cause cancer.
  - (vi) (Civil, Case, Criminal) Law prohibit wrongs against the state or society.
2. (a) Classify the regions of the atmosphere and explain any one.  
(b) Briefly explain the radiation pollutions arise in our environment.
3. (a) Mention the term "air quality". Classify an air quality as good and poor.  
(b) Briefly account on the effect of Iron and Copper pollutants on the environment.
4. (a) Classify the biodegradable and non-biodegradable pollutants.  
(b) Explain about the low cost pollution control technique.
5. (a) Explain the water hydrologic cycle with diagram.  
(b) List the water compartments in our environment and explain about the major water compartments.
6. (a) Explain the following terms.
  - (i) infiltration            (ii) water table            (iii) aquifers.(b) How are the dangerous chemicals divided? Explain briefly.
7. (a) What are neurotoxins? Explain with examples.  
(b) Discuss two categories of standard with regard to the drinking water.

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