

Elemental & Environmental Chemistry**Assignment 3**

1. State aerobic and anaerobic products of decomposition of organic matter containing:
- (a) Carbon /2
 - (b) Nitrogen /2
 - (c) Phosphorus /2
 - (d) Sulphur /2
- 2.
- (a) Describe the process of photosynthesis. /2
 - (b) Write an equation for the process of aerobic respiration involving glucose. /2
3. Describe the operation of the nitrogen cycle, including equations, and covering at least the following points:
- lightning
 - nitrogen-fixing bacteria
 - decay
- /5
4. (a) Describe one fertiliser manufacture process, including at least one equation. /3
- (b) Explain why plants tend to grow better when a fertiliser is added to the soil. /2
5. (a) Explain how the greenhouse effect works. /3
- (b) Discuss why the greenhouse effect is necessary for life on Earth and explain the consequences for the environment of the enhanced greenhouse effect. /3
- (c) Discuss how human actions could enhance the greenhouse effect and how the enhanced greenhouse effect could impact human society. /3
- TOTAL /31