

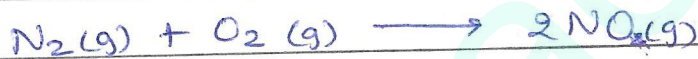
## Nitrogen and Sulphur

Q1) Nitrogen



V strong covalent bond.

Lightning provides the activation energy needed for  $\text{N}_2$  &  $\text{O}_2$  to react



It further is oxidised to form nitric acid which falls to the earth as acid rain.

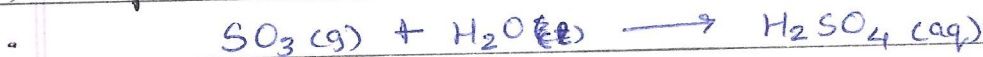
In this way nitrogen is turned into nitrates ( $\text{NO}_3^-$ ) which plants use to make proteins

Q2) Uses of Nitrogen containing compounds

- Ammonium: Fertilisers, Nitric acid (TNT, dyes etc.) <sup>(explosives)</sup>

↳ But it can cause eutrophication

Q3) Sulphur & its oxides



- It causes acid rain, destroying buildings, plants, & rivers

- $\text{SO}_2$  is used to preserve food → kills bacteria

- Sulphuric acid → slows down oxidation

- Fertilisers

- Detergents

- Paints

- Pigments

- Dyes

- Synthetic fibers

↳ Reducing agent.