

Worksheet: Chemical Bonding and Molecular Structure

IB · Class 11 · Chemistry · 5 questions · 14 marks

Name: _____

Date: _____

Score: _____ / 14

Q1. Determine the hybridisation and shape of SF₄. *[3 marks]*

Q2. Why is H₂O bent but CO₂ linear? *[3 marks]*

Q3. Why does water have a higher boiling point than H₂S? *[2 marks]*

Q4. Calculate the bond order of O₂²⁻ (peroxide ion) and predict its magnetic behaviour. *[3 marks]*

Q5. Explain why O₂ is paramagnetic using molecular orbital theory. *[3 marks]*
