

Practice Questions

Practice Question 1

1. Draw the Lewis structure for XeF_4 .
2. Predict the VSEPR geometry at xenon.
3. Determine a hybridization scheme to rationalize the geometry.

Practice Question 2

Draw the MO diagram for He_2 . Calculate the bond order and show the electronic configuration of He_2 molecule.

Practice Question 3

Draw the MO diagram for H_2^- . Calculate the bond order and show the electronic configuration of H_2^- molecule.

Practice Question 4

Draw the MO energy diagram for O_2^+ . What is the bond order? Is it paramagnetic or diamagnetic? Compare the bond length of O_2^- , O_2 and O_2^+

Practice Question 5

Draw the MO energy diagram for BC. What is the bond order? What is the valence electronic configuration?

Practice Question 6

Fill in the MO energy diagram for CO. What is the bond order?

