

- 16) Sketch a  $3p_z$ -AO (radial factor of wave function; point density; radial shell density; contour plot of  $\psi$  in a plane).
- 17) What gives the lower energy for a two-electron system? 2 coupled, antiparallel spins, or two non-paired parallel spins? Why is it so?
- 18) Construct MO schemes, discuss them, give the respective Lewis formula: for HB.
- 19) And for  $C_2$  and NF.
- 20) Describe the localized and delocalized MOs of  $H_2S$ .