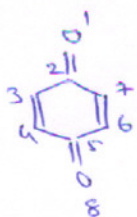


15. Set up the Hückel matrix for p-quinone



$k_{(=O)} = 1$ $k_{(C=O)} = 1$

$$\begin{bmatrix} \alpha+1 & 1 & 0 & 0 & 0 & 0 & 0 & 0 \\ 1 & \alpha & 1 & 0 & 0 & 0 & 1 & 0 \\ & & & \text{etc} \dots & & & & \end{bmatrix}$$

Solve it!

16. Draw the d-orbital splitting diagram for

a linear ML_2 complex using AOM.



$d_{z^2} : 2e_{\sigma}$

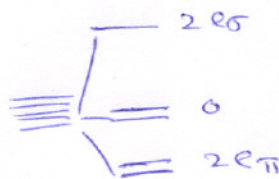
$d_{x^2-y^2}, d_{xy} : 0$

$d_{xz}, d_{yz} : 2e_{\pi}$



(π -donor Ligand)

Check with the
table of
AOM factors



(π -acceptor
Ligands)