

Packet 7C

1) Define the following terms:

- a) wave function
- b) electron density
- c) radial probability
- d) atomic orbitals

2) List the four quantum numbers and define what they represent.

3) (2pts) Draw the shapes of an *s* orbital and a *p* orbital.

4) List the possible quantum numbers for each of the following orbitals.

3p	2s	3d _{xy}	5f
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5) Circle the orbital at a higher energy.

- a) 4p 3d
- b) 3s 3p