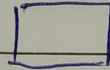


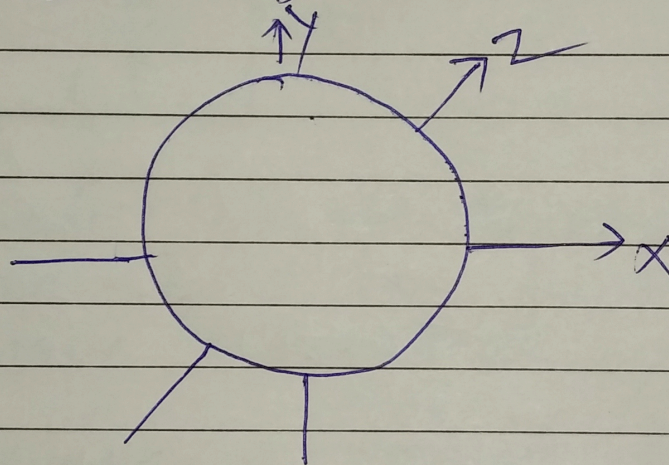
Shape of orbitals

For s-orbital —

for s-orbital, $l=0$ This value shows that it has only one value of m . i.e. $m=0$ $m=0$



Shape of s orbital is spherical which is three dimensional

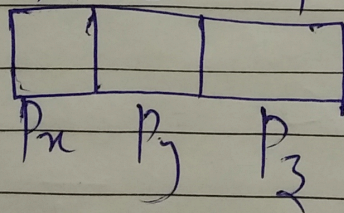


For p-orbital —

for p-orbital $l=1$

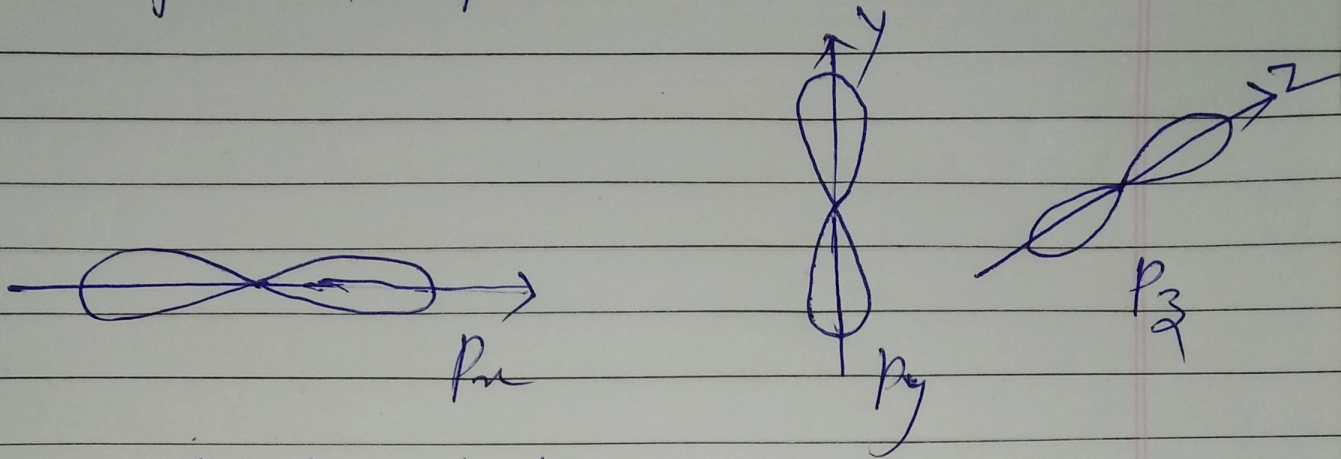
$\therefore m = +1, 0, -1$

$m = +1 \quad 0 \quad -1$



These three values of m show that it has three shapes.

Shape of p-orbital is dumb-bell.

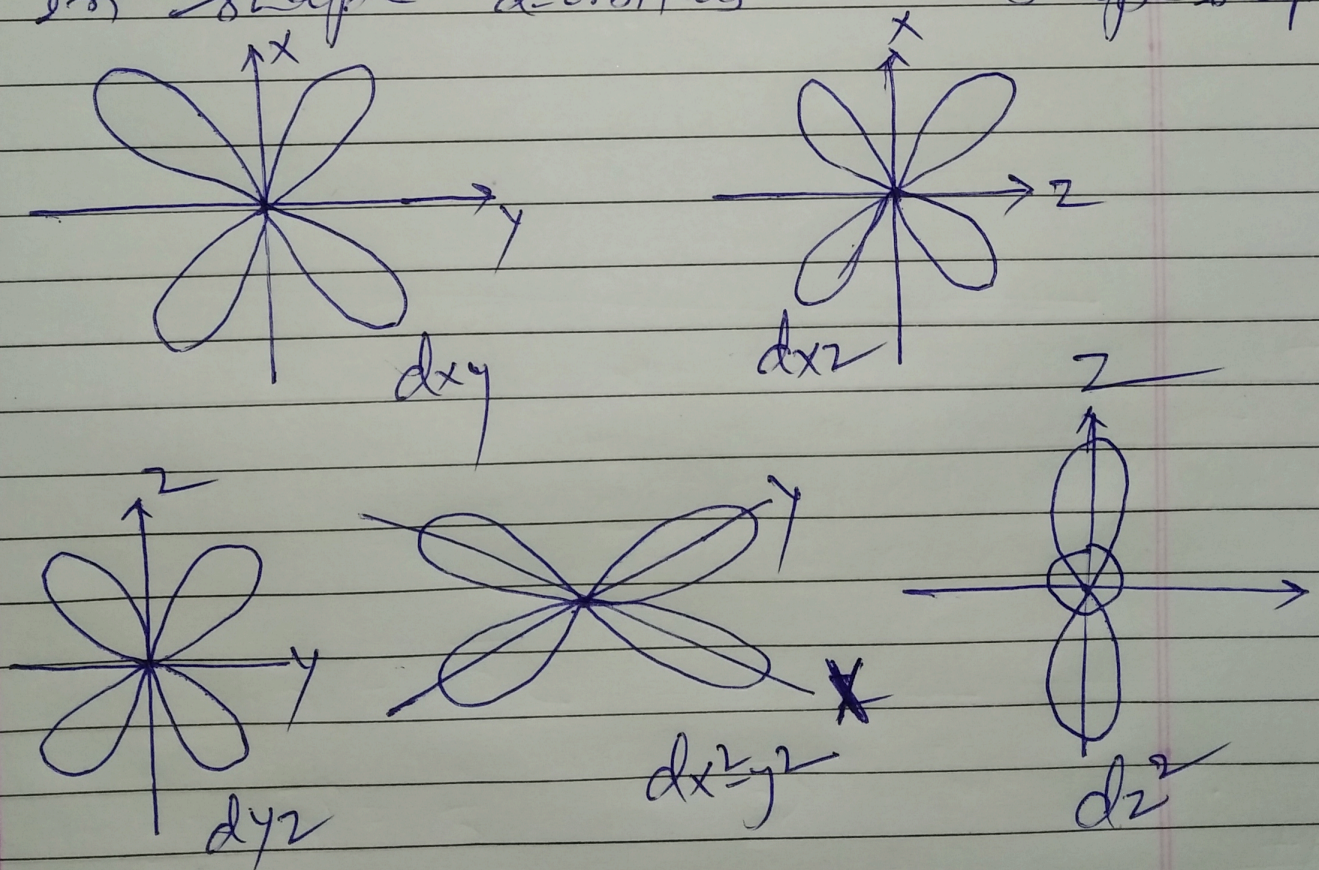


Shape of d-orbitals

$$\text{for } l=2 \quad \therefore m=2l+1=5$$

There are five values of $m = +2, +1, 0, -1, -2$.

Shape of d-orbitals are double dumb-bell in shape. d-orbitals have shape shape



Shape f-orbital — Unknown.