

$n=1$	$\rightarrow l=0$	$\rightarrow s\text{-subshell}$
$n=2$	$\rightarrow l=0,1$	$\rightarrow s,p\text{-subshell}$
$n=3$	$\rightarrow l=0,1,2$	$\rightarrow s,p,d\text{-subshell}$
$n=4$	$\rightarrow l=0,1,2,3$	$\rightarrow s,p,d,f\text{-subshell}$

3: Magnetic Quantum number "m"

$$m=(2l+1) \quad \text{or} \quad m=+l,0,-l$$

Gives information about the orbitals.

- No of electrons in one orbital=2
- In magnetic field orbitals degenerate ($dx^2y^2, dyz, dzx, dx^2-dy^2, dz^2$)

$l=0=s$	$m=0$	
$l=1=p$	$m=3$	or $m=+1,0,-1$
$l=2=d$	$m=5$	or $m=+2,+1,0,-1,-2$
$l=3=f$	$m=7$	or $m=+3,+2,+1,0,-1,-2,-3$

4: Spin Quantum number "s"

$$s=+1/2 \downarrow (\text{clockwise})$$

$$s=-1/2 \uparrow (\text{anticlockwise})$$

- Due to the opposite magnetic field, the electrons don't repel each other, rather attract each other.