(iv) Spin Quantum no. — It is represented by 's'.

An electron can spin either in clock wise direction or in anticlock wise direction. The clock wise spin is represented by $+\frac{1}{2}$ and anticlock wise spin is represented by $-\frac{1}{2}$.

So, $S = +1/2$ and $-1/2$ representing two electron. one making clockwise spin while other making anticlockwise spin.

So total value of s for a given value of l define the no. of electron in orbital.

∴ Maximum electron capacity in orbital, $s = 2(2l+1)$

$$\therefore \boxed{s = 4l+2}$$

for —

s-orbital - $l=0$ $s = 4l+2 = 4\times0+2 = 2$

p-orbital - $l=1$ $s = 4l+2 = 4\times1+2 = 6$

d-orbital - $l=2$ $s = 4l+2 = 4\times2+2 = 10$

f-orbital - $l=3$ $s = 4l+2 = 4\times3+2 = 14$