

# 26

2020 OCTOBER

DAY 300 - 066 WEEK 44

MONDAY

10	October 2020						
Wk	M	T	W	T	F	S	S
40				1	2	3	4
41	5	6	7	8	9	10	11
42	12	13	14	15	16	17	18
43	19	20	21	22	23	24	25
44	26	27	28	29	30	31	

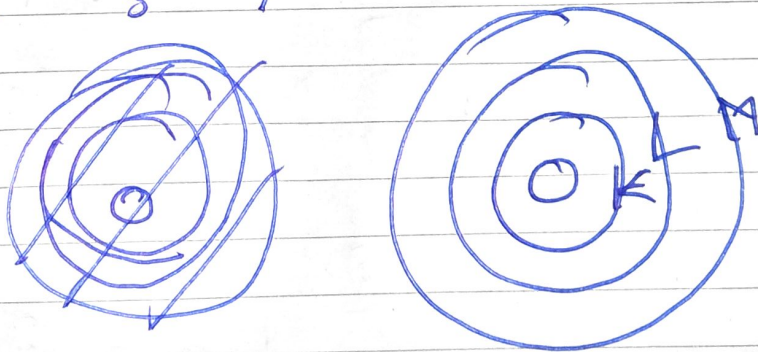
APPOINTMENT / MEETING  
Date - 2.7.20 Class VIII  
Chapter - 4 Atomic structure  
Sub - Chemistry Part 2

8

9 ① What are orbits or shells?  
Ans: Electrons revolve around the nucleus in imaginary paths called orbits.

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12 ② What is 1st and 2nd orbit?  
Ans: The orbit closest to the nucleus is called first orbit. The next orbit is called the second orbit and so on. They are labelled as:  
K, L, M, N - - - or  
1, 2, 3, 4



NOTES

WK	M	T	W	T	F	S	S
44/49	30						1
45	2	3	4	5	6	7	8
46	9	10	11	12	13	14	15
47	16	17	18	19	20	21	22
48	23	24	25	26	27	28	29

## APPOINTMENT / MEETING

③ Why are the orbits known as energy level?

Ans: Each of these shells contain different no. of electrons depend upon the amount of energy associated with them. The shell closest to the nucleus has the lowest amount of energy and hence contains the least no. of electrons.

④ State Bohr Bury rule.

Ans: The maximum no. of electrons in each shell or orbit is determined by a formula  $2n^2$ .

K shell	$n=1$	no. of electrons	$2 \times 1^2 = 2$
L "	$n=2$	" "	$2 \times 2^2 = 8$
M "	$n=3$	" "	$2 \times 3^2 = 18$
N "	$n=4$	" "	$2 \times 4^2 = 32$

⑤ State the 2nd rule of Bohr's model.

Ans: Electrons are not accommodated in a given shell, unless the inner shells are filled. That is, the shells are filled in a step wise manner.

NOTES



APPOINTMENT / MEETING

## Electronic Configuration

APPC

8	Element	A.N.	1<	2L	2A	2B	2C
9	Hydrogen	1	1				
10	Helium	2	2				
	Lithium	3	2	1			
	Beryllium	4	2	2			
	Boron	5	2	3			
12	Carbon	6	2	4			
	Nitrogen	7	2	5			
1	Oxygen	8	2	6			
	Fluorine	9	2	7			
2	Neon	10	2	8			
	Sodium	11	2	8	1		
3	Magnesium	12	2	8	2		
	Aluminium	13	2	8	3		
4	Silicon	14	2	8	4		
	Phosphorus	15	2	8	5		
5	Sulphur	16	2	8	6		
	Chlorine	17	2	8	7		
6	Argon	18	2	8	8		1
	Potassium	19	2	8	8		2
	Calcium	20	2	8	8		

NOTES

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APPOINTMENT / MEETING

⑥ State Octet ~~rule~~. Duplet rule  
 Ans: If the atom has only one shell, as in case of hydrogen and helium, the outermost (single shell) can have only 2 electrons, called duplet rule.

⑦ State Octet rule.  
 Ans: However, the outermost orbit of an electrically neutral atom cannot have more than 8 electrons.

Homework  
 State the no. of protons, neutrons and electrons and their electronic configuration

$^{20}_{10}\text{N}$ ,  $^{23}_{11}\text{Na}$ ,  $^{27}_{13}\text{Al}$ ,  $^{12}_6\text{C}$ ,  $^{40}_{18}\text{Ar}$ ,  $^{39}_{19}\text{K}$

P.S. 2.4.20

NOTES