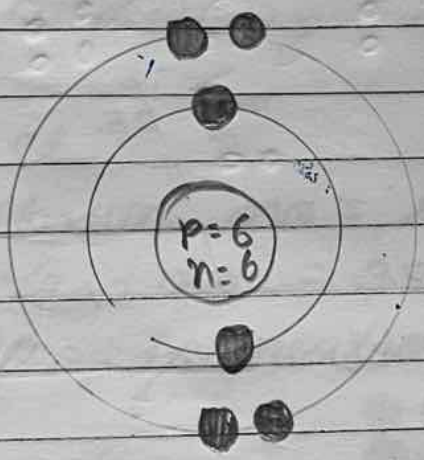
Sto Exercise

Q1. State the mass number, the atomic number, number of net neutrons and electronic configuration of the following atoms. ~~Sto~~ Also draw atomic diagram for each of them.

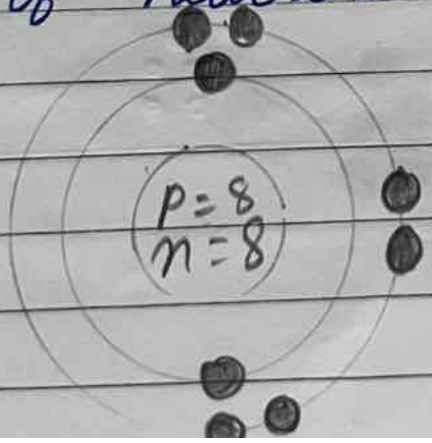
1. $^{12}_{6}C$

mass no. = 12 , number of neutrons = 6
atomic no = 6 , electronic configuration
n = 2, 4



2. $^{16}_{8}O$

mass no = 16, atomic no. = 8,
no of neutrons = 8, ~~electro. conf~~ electronic configuration = 2, 6



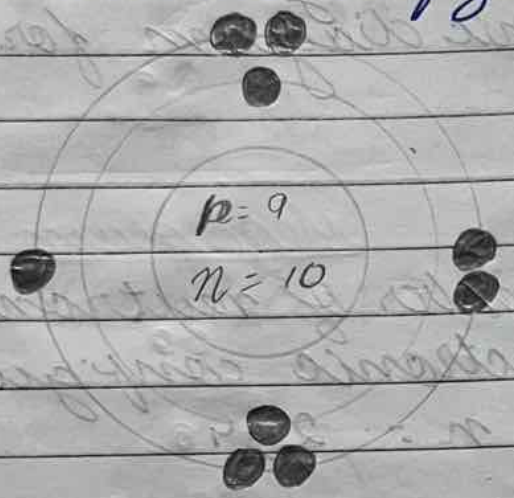
3 $^{19}_{9}F$

mass no. = 19

atomic no. = 9

no. of neutrons = 10

electronic configuration = 2, 7



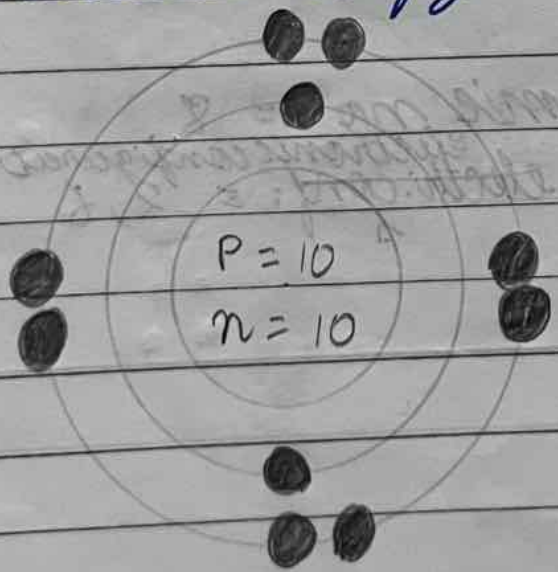
4. $^{20}_{10}Ne$

mass no = 20

atomic no = 10

no. of neutrons = 10

electronic configuration = 2, 8

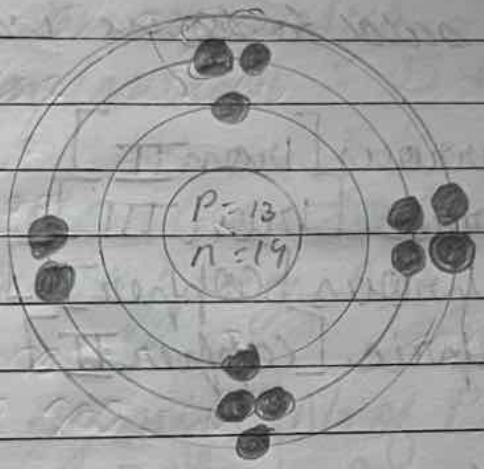


5 $_{13}Al^{27}$

Atomic no = 13

Mass no = 27

no. of neutrons = 14

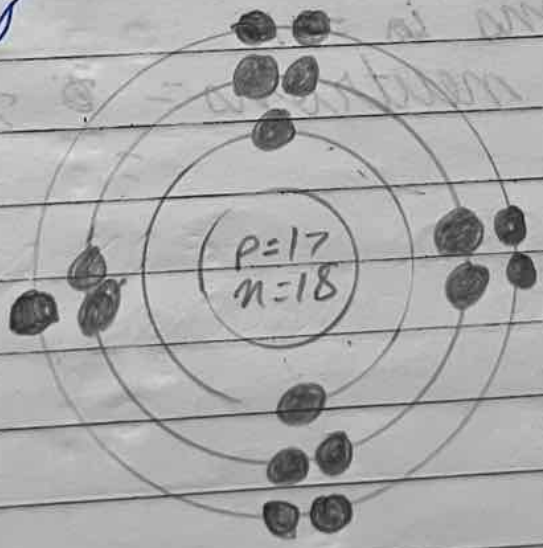


6. $_{17}Cl^{35}$

Atomic no = 17

Mass no = 35

no. of neutrons = 18



Q2. What is variable valency? Name two elements having variable valency and state their valency.

ans. Some elements exhibit more than one valency. They are said to have variable valency.

		(valency)
Iron (Fe) -	Ferrous [Iron II]	2
	Ferric [Iron III]	3
Copper (Cu) -	Cuprous [copper I]	1
	Cupric [copper II]	2

Q3. The atomic number and the mass number of sodium are 11 and 23 respectively. What information is conveyed by this statement?

The information that is conveyed by this statement is as are:

no. of protons = 11

no of neutrons = 23 - 11

= 12

no of electr

The atom of an element is made up of 4 protons, 5 neutrons and 4 electrons what is its atomic ~~no~~ number and mass number?

ans. Atomic ~~no~~ number = 4

Mass number = 5 + 4

= 9

complete the table below by ~~in~~ identifying A, B, C, D, E and F

Element	symbol	No of P	No of n	No of e
Fluorine	${}_{9}F^{19}$	9	10	9
Aluminium	~~10~~ Al^{27}	13	14	13
Potassium	${}_{19}K^{39}$	19	20	19

Revision

Q1) Why do $^{35}_{17}Cl$ and $^{37}_{17}Cl$ have the same chemical properties? In what respect do this atoms differ?

Q2) Complete the following table relating to the atomic structure of the some of the elements.

Element	Z	A	No of neutrons	No of electron	No of proto
Li	3	7			
Cl	17		20		
S		32	16		

Write the principle of seperation of

Sublimation
Fractional distillation
Chromatography