

Chemistry Foundations

I. Atomic Structure

	proton	neutron	electron
charge	+	0	-
mass	1.	1	0
location	nucleus	nucleus	outside nucleus

Atomic Number

- number of protons

e.g. Carbon

notation



Atomic Mass Number

$$\#P + \#e^{-} \qquad \begin{matrix} 12 \\ \text{C} \\ 6 \end{matrix} \qquad 12 - 6 = 6$$

n

Isotopes - Similar atoms
but different mass

e.g. Carbon-13



? neutrons

$$13 - 6 = 7$$

Example- Find #p, n, e⁻ in
an atom of ${}_{35}^{80}\text{Br}$

$$\#p = 35$$

$$\#e^{-} = 35$$

$$\begin{aligned}\#n &= 80 - 35 \\ &= 45\end{aligned}$$

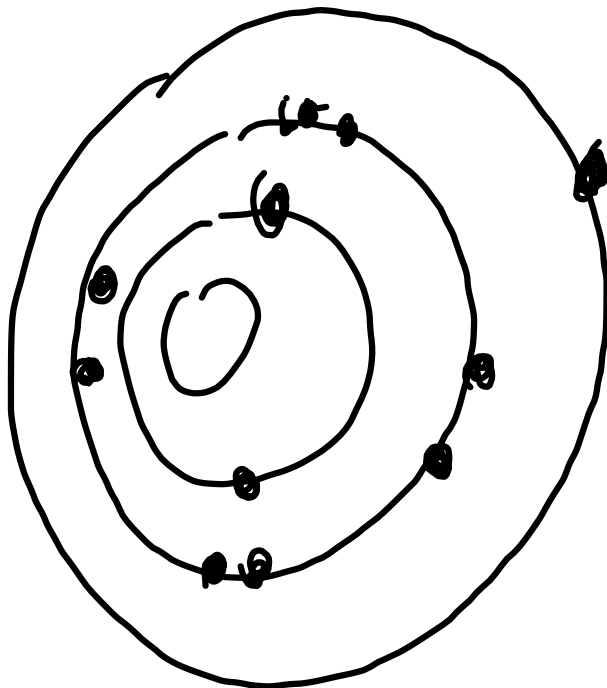
Question 5
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Answers -
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Periodic Table

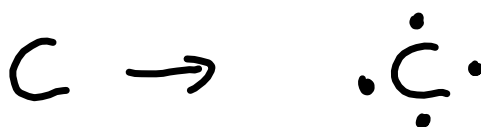
Text - p. 15

Metals - left

non-metals - right

Metalloids \curvearrowright lineElectron Energy levelse.g. Na in orbits
" " e^- : 2, 8, 1

Lewis Dot Diagrams



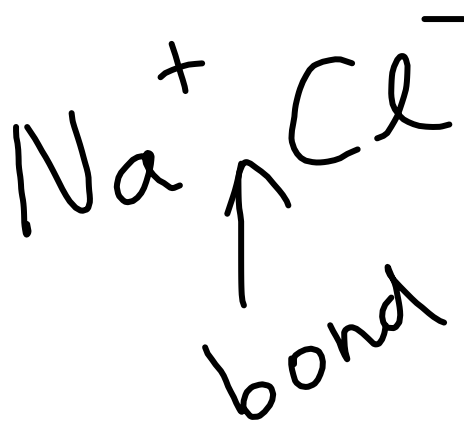
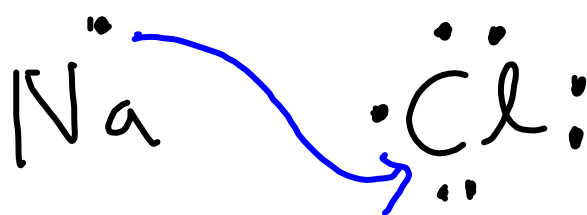
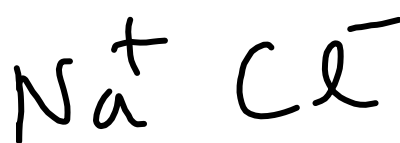
Read-text p.15-19

Chemical BondingA. Ionic Bonding

→
charged
particle

- conduct electricity
(solutions/liquids)

e.g. NaCl sodium chloride



Read text
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