

(Group 7 – Halogens)

Q1. (2018)

potassium chloride **and** iodine

Q2. (2018)

(chlorine's) outer electrons /
shell closer to the nucleus

(so) the chlorine nucleus has
greater attraction for
outer electrons / shell

(so) chlorine gains an electron
more easily

Q3. (2019)

(formula) At_2

(state) solid

Q4. a). (2020)

liquid gas

Q4. b). (2020)

(boiling point) increases (down
the table / group)

(because) the relative formula /
molecular mass increases

or

(because) the size of the
molecule increases

(so) the intermolecular forces
increase (in strength)

(so) more energy is needed to
overcome the intermolecular
forces

Q4. c). (2020)

boiling point is a bulk property

Q5. a). (2020)

the gas / halogen is toxic

Q5. b). (2020)

(going down the group)

the outer electrons / shell

become further from the nucleus

(so) the nucleus has less
attraction for the outer electrons
/ shell

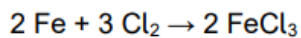
Q5. c). (2020)

4.48 (g iron) **and** 8.52 (g
chlorine)

$$(\text{moles Fe} = \frac{4.48}{56} =) 0.08$$

$$(\text{moles Cl} = \frac{8.52}{35.5} =) 0.24$$

$$(\text{Fe} : \text{Cl} = 0.08 : 0.24 =) 1 : 3$$



Q6. (2023)

(number of outer shell electrons)

7

(reason) (tennessine is in)

Group 7

Q7. (2024)

chlorine and potassium bromide

Q8. (2024)

relative molecular mass

increases and boiling point

increases