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CHEMISTRY

PHYSICAL CHEMISTRY

LEVEL & BOARD:	OCR (AS - LEVEL)
TOPIC:	Compounds, Formulae & Equations
PAPER TYPE:	SOLUTION 3
TOTAL QUESTIONS	07
TOTAL MARKS	17

www.chemistryonlinetuition.com Compounds, formula & Equation 3

Q.I

(i) Equation for reaction between Scandium and oxygen.

$$4SC(s) + 3O_{2}(q)$$

$$25c_2O_{3(s)}$$

Q.2

(i) Alkane with 19 carbons would have molecular formula as,

Therefore empirical formula would be

C19H40 as well

Q.3

Formula of ions present in K2SO4

K+

Cation

5042-

Anion

Reaction 1

Q.4

(i)
$$K_{(s)} + H_2O_{(e)}$$

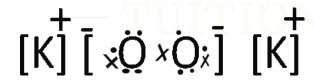
$$KOH_{(eq)} + H_{2(eq)}$$

Reaction 2

$$K(s) + N_{2(g)} \rightarrow K_3N(s)$$

(ii) The bonding in Potassium nitrate is ionic, resulting from Electrostatic attraction between K+ ions and NO⁻³ ions as well as Covalent bond between nitrogen and oxygen atoms.

Dot/cross diagram of K2O2

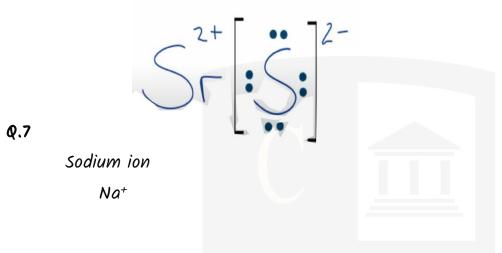


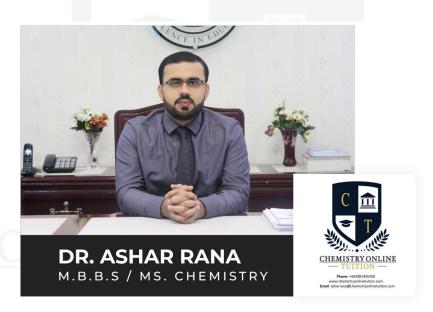
Q.5

Bromine reacts with Potassium

$$2K_{(s)} + Br_{2(q)} \rightarrow KBr_{(s)}$$

- (i) Barium Sulphate is formed So, observation would be white Crystalline Powder
- (ii) $Ba(OH)_{2(eq)} + H_2SO_{4(eq)}$ $BaSO_{4(s)} + H_2O_{(e)}$
- (b)
- (i) magnesium hydroxide is used to treat excessive acidity in Stomach
- (i) Dot/cross diagram for SrS





- $\boldsymbol{\cdot}$ Founder & CEO of Chemistry Online Tuition Ltd.
- · Completed Medicine (M.B.B.S) in 2007
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