

Phone: +442081445350 www.chemistryonlinetuition.com Email: asherrana@chemistryonlinetuition.com

CHEMISTRY

PHYSICAL CHEMISTRY

LEVEL & BOARD:	OCR (AS - LEVEL)
TOPIC:	Compounds, Formulae & Equations
PAPER TYPE:	SOLUTION 2
TOTAL QUESTIONS	07
TOTAL MARKS	17

www.chemistryonlinetuition.com Compounds, formula & Equation

Q.I

(i)

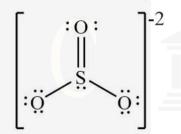
Reaction 1

$$SO_2 + H_2O \longrightarrow H_2SO_3$$

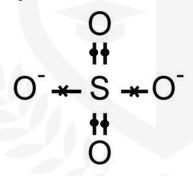
Reaction 2

$$SO_3 + H_2O \longrightarrow H_2SO_4$$

(ii) Covalent bonding is present in a molecule of SO3. It has got three double bonds between Sulphur and oxygen atom.



(iii) Dot/cross Diagram of SO_4^{2-} - Sulfate ion



Q.2

Bromine reaction with Sodium

Formula of compound NaBr

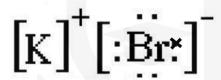
Q.3

(a)

- (i) During the reaction, formation of white Crystalline Solid would be observed
- (ii) $AgNO_{3(eq)} + NaCl_{(eq)} \rightarrow AgCl_{(s)} + NaNO_{3(eq)}$

(b)

- (i) Ammonium Sulfate
- (ii) $2K + Br_2 \longrightarrow 2KBr$
- (iii) Dot/cross diagram for KBr



Q.4

 Cl^-

Chloride ion

Q.5

Equation of reaction between Boron and Oxygen

$$4B(s) + 3O_{2(g)} \longrightarrow 2B_{2}O_{3(s)}$$

Q.6

Alkene with sixteen carbons would have molecular formula as $C_{16}H_{34}$

Empirical formula would be

C8H17

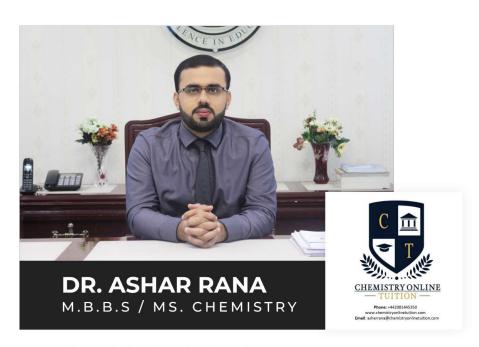
The ions present are:

Na+ — Cation

PO₄-3 — Anion

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□ asherrana@chemistryonlinetuition.com



- ${\boldsymbol \cdot}$ Founder & CEO of Chemistry Online Tuition Ltd.
- · Completed Medicine (M.B.B.S) in 2007
- Tutoring students in UK and worldwide since 2008
- CIE & EDEXCEL Examiner since 2015
- · Chemistry, Physics, Math's and Biology Tutor

CONTACT INFORMATION FOR CHEMISTRY ONLINE TUITION

- · UK Contact: 02081445350
- · International Phone/WhatsApp: 00442081445350
- · Website: www.chemistryonlinetuition.com
- · Email: asherrana@chemistryonlinetuition.com
- · Address: 210-Old Brompton Road, London SW5 OBS, UK