

Practice Question Set For A-Level
Subject : Chemistry
Paper-1 Topic: Inorganic 2

Name of the Student: _____

Max. Marks : 17 Marks

Time : 17 Minutes

Mark Schemes

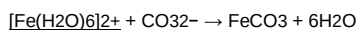
Q1.

- (a) Iron(II): green (solution) gives a green precipitate

Apply list principle throughout if extra colours and / or extra observations given. Ignore state symbols in equations.

Not blue-green ppt.

1



Must start from $[\text{Fe}(\text{H}_2\text{O})_6]^{2+}$

Allow equations with Na_2CO_3

1

Iron(III): yellow / purple / brown / lilac / violet (solution) gives a brown / rusty precipitate

1

Effervescence / gas / bubbles

Allow CO_2 evolved but not just CO_2

1

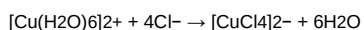


1

- (b) Copper(II): blue (solution) gives a green / yellow solution **OR** blue solution (turns) to green / yellow / olive green

Apply list principle throughout if extra colours and / or extra observations given. Ignore state symbols in equations.

1

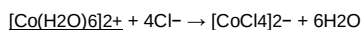


Allow equations with HCl

1

Cobalt(II): pink (solution) gives a blue solution **OR** pink solution turns blue

1

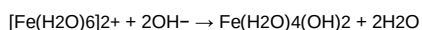


1

- (c) Iron(II): green (solution) gives a green precipitate

Apply list principle throughout if extra colours and / or extra observations given. Ignore state symbols in equations.

1



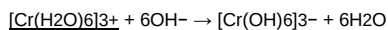
Allow equations with NaOH

1

Chromium(III): green / ruby / purple / violet / red-violet (solution) gives a green solution **OR** green / ruby / purple / violet / red-violet solution turns green

Ignore green ppt.

1



Allow also with 4 or 5 OH balanced with 2 or 1 waters.

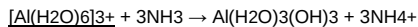
Also allow two correct equations showing $\text{Cr}(\text{H}_2\text{O})_3(\text{OH})_3$ as intermediate.

1

(d) Al: colourless (solution) gives a white ppt

Apply list principle throughout if extra colours and / or extra observations given. Ignore state symbols in equations.

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Allow $+ 3\text{OH}^- \rightarrow 3\text{H}_2\text{O}$ if

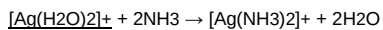
$\text{NH}_3 + \text{H}_2\text{O} \rightarrow \text{NH}_4^+ + \text{OH}^-$ also

1

Ag: colourless (solution) remains a colourless solution / no visible change

Ignore brown ppt.

1



Allow 2 / 3 equations involving Ag_2O or $\text{Ag}(\text{OH})_2$

1

[17]