

NAME: .....

**CORONA HOLIDAY CHEMISTRY TEST SERIES**

**March 30, 2020, TIME: 1HOUR**

Carbon monoxide gas was passed over strongly heated copper(II)oxide in a hard long glass tube.

a) State what was observed ( ½ mark)

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b) i) Write an equation for the reaction that took place (1 ½ marks)

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ii) Suggest a chemical test for the gaseous product from b) i) above .

(1 ½ marks)

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iii) write an equation for the reaction that took place in b) ii) above.

(1 ½ marks)

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c) The residue from (b)i) above was added separately to cold concentrated nitric acid and heated concentrated sulphuric acid . State what was observed in each case and write an equation for the reaction that took place with;

i) Cold concentrated nitric acid

Observation;.....

.....

Equation:.....

.....

ii) Heated concentrated sulphuric acid

Observation;.....

.....

Equation;.....

.....

d) The resultant solution from c)i) above was diluted with water , boiled and hydrogen sulphide gas bubbled through the boiling solution.

i) State what was observed

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ii) Write an ionic equation for the reaction that took place

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e) The resultant solution from c) ii) above was diluted with distilled water and then divided into three portions

i) To the first portion, dilute sodium hydroxide solution was added drop wise until in excess

❖ State what was observed (1 mark)

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❖ Write an ionic equation for the reaction that took place. (1 ½ marks)

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ii) To the second portion, was added aqueous ammonia solution drop wise until in excess

❖ State what was observed (1 ½ marks)

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❖ Write the formula cation present in the final solution. (1mark)

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❖ Write the name of the cation present in the final solution. (1mark)

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iii) To the third portion , was added barium nitrate solution followed by dilute nitric acid .

❖ State what was observed (1mark)

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❖ Write an ionic equation for the equation (1 ½ marks)

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**END**