

CHEMISTRY DEPARTMENT
S.6 BRAINSTORMING TEST
TOPIC; TRANSITION ELEMENTS
SUB-TOPIC; CHEMISTRY OF NICKEL

NAME _____

Signature _____ **STREAM** _____

Instructions; Attempt **all** questions in this paper.

1. (a) (i) State two reasons why nickel is a transition element. (2 mks)

(ii) Write an equation for the reaction when nickel(ii) ethanoate is heated in a dry test tube.

(b) State what is observed and write an equation for the reaction when nickel sulphate solution is added each of the following

(i) Sodium hydroxide solution drop-wise until in excess

Observation (01 mark)

Equation (01 mark)

(ii) Ammonia solution drop wise until in excess.

Observation (01 mark)

Equation(s) (03 marks)

(iii) Potassium hexacyanoferrate(II) solution.

Observation

Equation

(1½ marks)

(iv) potassium hexacyanoferrate(III) solution

Observation

Equation

(1½ marks)

(c) Briefly describe the confirmatory tests for nickel(II) ions in a lab.

END.