

Name of the Student: _____

Max. Marks : 17 Marks

Time : 17 Minutes

Q1.

The following pairs of compounds can be distinguished by simple test-tube reactions.

For each pair, give a suitable reagent that could be added separately to each compound to distinguish between them.

Describe what you would observe in each case.

(a) AgBr(s) and AgI(s)

Reagent _____

Observation with AgBr(s) _____

Observation with AgI(s) _____

(3)

(b) HCl(aq) and HNO₃(aq)

Reagent _____

Observation with HCl(aq) _____

Observation with HNO₃(aq) _____

(3)

(c) Cyclohexane and cyclohexene

Reagent _____

Observation with cyclohexane _____

Observation with cyclohexene _____

(3)

(d) Butanal and butanone

Reagent _____

Observation with butanal _____

Observation with butanone _____

(3)

(Total 12 marks)

Q2.

(a) Chlorine displaces iodine from aqueous potassium iodide.

(i) Write the **simplest ionic** equation for this reaction.

(1)

(ii) Give **one** observation that you would make when this reaction occurs.

(1)

(b) In bright sunlight, chlorine reacts with water to form oxygen as one of the products. Write an equation for this reaction.

(1)

(c) Explain why chlorine has a lower boiling point than bromine.

(2)

(Total 5 marks)