The City School

**North Nazimabad Boys Campus**

**Chemistry: revision work sheet**

**Topic :redox reactions**

**Class :11**

**Teacher :Zubaida Aslam**

**Q1 a** Is this a redox reaction? Give your evidence.

**A** 2Mg (*s*) + CO2 (g) 2MgO (*s*) + C (*s*)

**B** SiO2 (*s*) + C (*s*) Si (*s*) + CO2 (*g*)

**C** NaOH (*aq*) + HCl (*aq*) NaCl (*aq*) 1 H2O (*l*)

**D** Fe (*s*) + CuO (*s*) FeO (*s*) + Cu (*s*)

**E** C (*s*) + PbO (*s*) CO (*g*) + Pb (*s*)

**b** For each redox reaction identify,

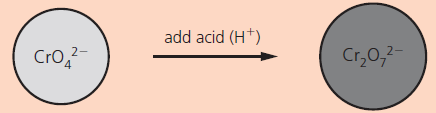
**i** the oxidising agent

**ii** the reducing agent.

Q2: Potassium chromate(VI) is yellow. In acid it forms

orange potassium dichromate(VI). These are the

ions that give those colours:



**a** What is the oxidation state of chromium in:

**i** the yellow compound?

**ii** the orange compound?

**b** This reaction of chromium ions is not a redox reaction. Explain why.

Q3: The oxidising agent potassium manganate(VII) can be used to analyse the % of iron(II) present in iron tablets. Below is an **ionic equation**, showing the ions that take part in the reaction:

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**a** What does the H+ in the equation tell you this reaction?

**b** Describe the colour change.

**c** Which is the reducing reagent in this reaction?

**d** How could you tell when all the iron(II) had reacted?

**e** Write the half-equation for the iron(II) ions.

Q4:The oxidation states in a formula add up to zero.

Give the oxidation state of the underlined atom in each formula below:

**i** aluminium oxide, Al2O3

**ii** ammonia, NH3

**iii** H2CO3 (*aq*), carbonic acid