برعاية معالي وزير التربية والتعليم
السيد الاستاذ / محمد عبد اللطيف
وتوجيهات مساعد الوزير لشئون تطوير المناهج التعليمية
والمشرف على الادارة المركزية لتطوير المناهج
د/ أكرم حسن
اداءات وتقييمات الصف الثانى الثانوى
Chemistry
لجنة الاعداد والمراجعة
خبراء مكتب تنمية مادة العلوم
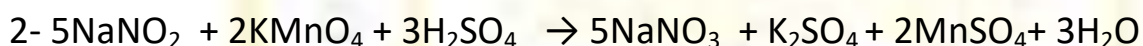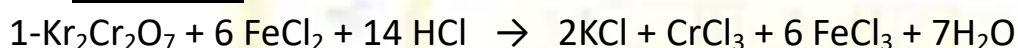اشراف علمى
مستشار العلوم
د/ عزيزه رجب خليفة

Question one:-

Q1/ Give reasons for each of the following:

1- Oxidation number of nitrogen in ammonia gas is (3-) , while its oxidation number in (N_2O_3) is (3+)

2- Oxidation number of chlorine in hydrogen chloride gas is (1-) , while its oxidation number in hypochlorous acid (HClO) is (1+)

3- Oxidation number of oxygen in oxygen fluoride is (2+)

4- Double exchange reactions don't represents oxidation –reduction reactions.

5- Neutralization reactions don't represents oxidation –reduction reactions.

6- Precipitation reactions don't represents oxidation –reduction reactions

Q2/ Determine the oxidizing agent and reducing agent in each of the following Reactions.

1- $Kr_2Cr_2O_7 + 6 FeCl_2 + 14 HCl \rightarrow 2KCl + CrCl_3 + 6 FeCl_3 + 7H_2O$

2- $5NaNO_2 + 2KMnO_4 + 3H_2SO_4 \rightarrow 5NaNO_3 + K_2SO_4 + 2MnSO_4 + 3H_2O$

3- $2NaNO_3 + 6FeSO_4 + 4H_2SO_4 \rightarrow Na_2SO_4 + 3Fe_2(SO_4)_3 + 4H_2O + 2NO$

Q3/ Arrange the following compounds in an ascending order:-

(1) $NaClO_3 – KClO_4 - KClO_2$ (according to oxidation number of chlorine)

(2) $H_2O_2 – Na_2O – KO_2$ (according to oxidation number of oxygen)

(3) $H_2S - H_2SO_4 – H_2SO_3$ (according to oxidation number of sulphur)

Q4/ Calculate the oxidation number of the underlined element in each of the following:-

(1) $\underline{N}H_4\underline{N}O_3$

(2) $Cr_2(\underline{S}O_4)_3$

(3) $\underline{Cr}_2O_7^{2-}$