**DEPARTMENT OF CHEMISTRY**

**S.5 MIDTERM TWO CHEMISTRY**

**PAPER 2**

**TIME: 2:30MIN**

***Scenario;***

Your school has recently installed a water harvest system as part of its sustainability initiative. The water will be used for gardening, cleaning and lab activities .for safety reasons, it must be treated to remove ions like iron ii ions and kill bacteria. This is done using potassium manganite (vii) .you have been appointed to lead science club at the school in analyzing the quality of potassium (vii). The school received a new stock of it from a new supplier but it’s not sure of its standard. A school set standard is 85% purity. Provided to you are solutions BA1, 0.1M sodium sulphite solution, BA2 ,a 2M sulphuric acid and potassium manganate sample to be approved.

Support equation;

2MnO -4(aq) + 6H+(aq)+5SO32-(aq) 2Mn2+ (aq) + 3H2O(l) + 5SO4(aq)

***Task;***

Analyze 1 g of the sample and prepare a report for the school administration to base on in the process of approval.

K=39,Mn=54.9,O=16 By Nyangabyaki

By