



EDO UNIVERSITY, IYAMHO, EDO STATE
FACULTY OF SCIENCE
DEPARTMENT OF CHEMISTRY
First Semester Examination, 2016/17 Session

Course Title: Introductory Chemistry practical I

Course Code: CHM 112

Date:May, 2017

Instruction: *Answer all questions*

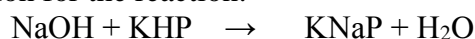
Time allowed: 3 hours

1. a. Solution B is a solution of impure NaOH containing 9g of the solute in 250cm³ of the solution. Solution A is 0.1M solution of potassium hydrogen phthalate (KH(C₈H₄O₄)). Pipette 25cm³ of A and titrate with B. Repeat the titration using fresh samples of A.

From your results and information provided calculate

- Molar concentration of B
- Mass concentration of B
- Number of moles of B in the titre
- % purity of B

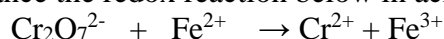
The equation for the reaction:



2a. What is a primary standard substance? List any four examples of a primary standard substance.

b. Calculate the volume of water that would be added to 50cm³ of 0.10M of HCl to dilute it to 0.010M

c. Balance the redox reaction below in acidic medium:



d i. Describe how you would prepare 500cm³ of 0.25M solution of anhydrous Sodium trioxocarbonate (IV).

ii. Explain the principle behind flame test