Name:	Centre/Index No:
School:	Signature:
545/3 months in abjuntant	BAZ is a solution reade by dissolving 6.0g of sodium
CHEMISTRY (PRACTICAL)	voles,
Jul/Aug. 2023	Phenolphthalem indicator.
2 hours	You are required to determine the value of a in an a



KAYUNGA SECONDARY SCHOOLS HEAD TEACHERS AND PRINCIPALS
ASSOCIATION (KASSHPA)
JOINT MOCK EXAMS 2023

UGANDA CERTIFICATE OF EDUCATION

Paper 3
2 hours

INSTRUCTIONS TO CANDIDATES:

- > Answer **ALL** the questions. Answers are to be written in the spaces provided in this question paper.
- You are not allowed to use any reference books (i.e. text books booklets on qualitative analysis etc)
- > All working must be clearly shown.
- > Mathematical tables and silent non-programmable calculators may be used.

		For Examiner's Use Only	
3/1	Question	o	A8
1.50	1.	a skalege volume of BA2 used.	di g
	2.	and the state of the second control of the second	
	Total		ar.

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1.	You	are	provided	with	the	following:
----	-----	-----	----------	------	-----	------------

 \mathbf{Q} , which is a 1M acid, H_nY .

BA2 is a solution made by dissolving 4.0g of sodium hydroxide in 500 cm³ of water.

Phenolphthalein indicator.

You are required to determine the value of \mathbf{n} in an acid, H_nY .

Procedure:

- (a) Measure 10 cm³ of **Q** using a measuring cylinder, add distilled water upto the 100 ml mark and label the resultant solution **BA1**.
- (b) Pipette 20 or 25cm³ of BA1 into a conical flask. Add 2 3 drops of phenolphthalein indicator and titrate the solution with BA2 from the burette until the colour of the solution just turns pink.

Repeat the titration until you obtain consistent results. Record your results in the table below.

Volume of pipette used cm³ (0.5mks)

Titration number	1	2	3
Final burette reading (cm ³)	in a sold talk		TARREST
Initial burette reading (cm ³	Con 17 (21 (115)		orano uno all'oran
Volume of BA2 used (cm ³)	All the second states	101	

	(7.5mks
Values of BA2 used to calculate the averageand	(1mk)
Determine the average volume of BA2 used.	(2.5mks
	······

Calculate the number of moles of Sodiun		
· (2 ³³)s)		
	A Company of the Company	
- C-44-13		ann a an assence
	•33-	
1991 P. W. Lee 1991 P. St. 1	Asino Fisor adedus noiw	(2.5mk
Calculate the number of moles of H_nY in the original solution Q .	Line Figor adades rules	(2.5mk
Calculate the number of moles of i) H _n Y in the original solution Q .	Line Febratedus nuivi	(2.5mk
Calculate the number of moles of (i) H _n Y in the original solution Q .	Latino Figor atades native according to the cord to th	(2.5mk
Calculate the number of moles of (i) H _n Y in the original solution Q .	Line Fan stadut now o villa O O villa Of free coo e	(2.5mk
Calculate the number of moles of (i) H _n Y in the original solution Q .	Line Fan afadel new nation 12 O VII. Of New colors	(2.5mk

(e3/ad.3)	d a, de trut reach'd.	of national more	lan in redour	
(iii) H _n Y that re	acted.			(2mks)
		••••••		
		X72 - 2 - 11 - 12		•••••
11				
		120 221414		
	a conference and a settle	44		
Determine the va	lue of n .			(2mks)
A - A - C - A - C - C - C - C - C - C -				
4				
-			in a military	ETH ACCIONE

TESTS		OBSERVATIONS	
(a)	full of T in a hard glass test tube first, then		DEDUCTIONS
	strongly heat until no further change.		
		g anna 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	

Identify any gases evolved.

(23.5mks)

		T
 (b) To two spatula endfulls of T add 5 cm³ of distilled water and shake the mixture. To the resultant solution add sodium hydroxide solution drop by drop 		
until in excess. Filter the mixture and keep both filtrate and residue.		
(c) To the filtrate, add dilute nitric acid drop by drop until the mixture is just acidic. Divide the resultant mixture into five parts		mine LV/
(i) To the first part , add sodium hydroxide solution drop by drop until in excess.		
(ii) To the second part , add 1 cm ³ of potassium iodide solution.		
	- (# c# E = -3)	
(iii) To the third part , add ammonia solution drop by drop until in excess		
(iv) To the fourth part , add 1 cm ³ of lead(II) nitrate solution and warm.	C.YG	

Call and spaces and space of the T and 5 cm ² or distribud when well-a and repair the mixture. To the resultant enlution and should and should by drug.
rivinge and knep bath fill ato and knep bath (r) In the filtrate addicinte riphe and upon the riphe and the riphe addicinte and with the is just according to the resolution mixture.
(I) To the first part, and add sodium
excess!
(ii) To the second part, acd from second part, acd from patassium iodide solution.

(d)	Ident	ify the ion	S:	American Security at 11 17
	(i)	Cations:	s: and	(1mk)
	(ii)	Anion		(0.5mk)

END

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KAYUNGA SECONDARY SCHOOLS HEAD TEACHERS AND PRINCIPALS ASSOCIATION (KASSHPA) JOINT MOCK EXAMS 2023 UGANDA CERTIFICATE OF EDUCATION

S.4 Chemistry P.3 Mock Exams 2023

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Qn.1 Each candidate should have the following:

1 50 cm³ burette.

1 pipette (25 ml/ 20 ml).

1 conical flask.

1 filter funnel.

1 100 cm³ measuring cylinder.

1 beakers labeled BA1.

15 cm 3 of **Q** which is 1M H $_2$ SO $_4$.

100 cm³ of BA2 which is 0.2M NaOH.

Qn.2 Each candidate should have the following:

6 test-tubes on a racker.

1 filter funnel.

1 filter paper.

W is a mixture of hydrated aluminium sulphate and hydrated iron(III) sulphate in the ratio of 1:1

NB: Easy access to the heat source and common reagents used in Qualitative analysis.

END