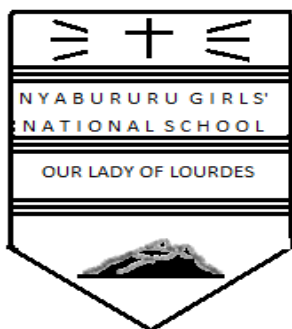


NAME.....CLS.....C.NO.....ADM.....



DATE DONE.....

INVIGILATOR.....

DATE RETURNED.....

DATE REVISED.....

CHEMISTRY CAT I
CAT 1 TERM 3 2017
FORM ONE
TIME: 2 HOURS

INSTRUCTIONS.

- Write your name, class, class number and admission number in the spaces provided above.
- Answer **ALL** questions in the spaces provided.

FOR EXAMINER'S USE ONLY

QUESTIONS	MAXIMUM SCORE	CANDIDATE'S SCORE
1 - 14		
TOTAL SCORE		

1. Define the following terms as used in Chemistry. (5mks)

(i) Drug abuse

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.....

(ii) Drug

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(iii) Laboratory

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.....

(iv) Acid

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.....

(v) Base

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.....

2. Name three frequently abused drugs. (3mks)

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.....

3. What is the role of the following parts during fractional distillation of a mixture of water and ethanol (2mks)

(i) Liebig's condenser. (1mk)

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(ii) Fractionating column.

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(iii) Glass beads

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(iv) Why is it possible to separate ethanol from water? (1mk)

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.....

(iv) State any two application of fractional distillation process. (2mks)

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.....

4. State three reasons why most apparatus in the laboratory are made of glass. (3mks)

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5. Give three examples of commercial indicators and state the colours they show in acidic and basic solutions. (6 mks)

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6. The following diagram represents a non-luminous flame of the Bunsen burner.

(a) Name the parts of the flame labeled A,B and C. (3 mks)

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.....

(b) Which of the parts in (a) above is the hottest? (1mk)

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.....

(c) A luminous flame is preferred for heating. Explain. (2mks)

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.....

(d) (i) Name the other type of flame produced by a Bunsen burner. (1mk)

.....

(ii) Under what conditions does the Bunsen burner produce the flame you have named in d(i) (1mk)

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.....

7. Write word equations for the reaction between dilute hydrochloric acid and each of the following. (4mks)

(a) Zinc metal.

(b) Calcium hydrogen carbonate

(c) Magnesium oxide

(e) Potassium hydroxide

8. List three differences between temporary and permanent changes. (3Mks)

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9. Dilute sulphuric acid was added to a compound of magnesium P. The solid reacted with the acid to form a colourless solution Q and colourless gas R which formed a white precipitate when bubbled through lime water.

(a) Name;

(i) Compound P. (1 mk)

.....

(ii) Solution Q. (1 Mk)

.....

(iii) Colourless gas R. (1mk)

.....

(b) Write a word equation for the reaction that took place. (1mk)

.....

10. Spots of pure pigments A, B and mixture of Z were placed on a filter paper and allowed to dry. The paper was then dipped in a solvent. The results obtained were as on the paper chromatogram.

(a) Which is the;
(i) Baseline (1mk)

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.....

(ii) Solvent front (1mk)

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.....

(b) Which of the pure pigments was a component of Z? Explain. (2mks)

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.....

(c) (i) Name a solvent that is used in paper chromatography. (1mk)

.....

(ii) Why is water not a suitable solvent in paper chromatography? (1mk)

.....

11. Name the method by which the following mixtures could be separated. (3mks)

(i) Kerosene and water.
.....

(ii) Ammonium chloride and sodium chloride.
.....

(iii) Common salt and water.
.....

12. Solutions may be classified as strongly basic, weakly basic, neutral, weakly acid, strongly acidic. The information below gives solutions and their pH values. Study it and answer the questions that follow.

Solution	pH vlaue
B	0.5
C	6
D	14.5

Classify the solutions in the table below using the stated classification. (3mks)

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13. State the chemical test for the presence of water. (2 Mks)

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14. Give any two examples of substance that undergoes sublimation. (2 Mks)

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