

Chemistry
Paper 1
2 hours 15 minutes



CLEVERLAND HIGH SCHOOL-MAYA
END OF TERM ONE EXAMS-2025
SENIOR THREE
CHEMISRTY
PAPER ONE

Instructions

- Attempt all items
- Answers should be written on the provided booklets.

Item I

Tendo, a senior three learner is fascinated about writing the chemical formulae, identifying the elements contained in different chemical compounds and salts. She has approached you with the table of salts below;

Task

Help Tendo fill correctly the table below by writing the elements contained in the salts and the chemical formulae of given salts.

Table 2.4: Elements found in some salts, their chemical formulae.

Salt	Elements found in the salt	Chemical formulae
Sodium chloride		
Calcium hydrogen carbonate		
Potassium nitrate		
Potassium carbonate		
Sodium sulphate		
Ammonium chloride		
Potassium Iodide		

Lead (II) nitrate		
Calcium hydrogen sulphate		

Item II

Cynthia, a senior 3 student found out when reading chemistry that Global climate change has been attributed to the emission of greenhouse gases to the atmosphere. She noticed that the greenhouse gases emitted have different sources but also there are various possible control methods that can be employed to curb the escalating global climate change patterns.

Task

Present a chart of common air pollutants (greenhouse gases) the source, effect of the pollutants and the possible control methods.

[Hint; Draw a table showing air pollutants, source of pollutant, and possible methods of control]

Item III

Chemistry is an incomplete subject without the practical knowledge of the subject. You have been approached by a friend who is puzzled about the following analytical chemistry.

Task

Help your friend simplify the challenges below.

- (i) Give the name of the salt and write the equation for reaction when;
 - (a) Magnesium reacts with dilute sulphuric acid.
 - (b) Zinc granules reacts with dilute hydrochloric acid.
 - (c) Zinc carbonate reacts with dilute nitric acid.
 - (d) Sodium carbonate solution is added to zinc chloride solution.
 - (e) Sodium carbonate solutions is added to copper (II) sulphate solution.
- (ii) Help your friend write the ionic equation for the reaction which occurs when;
 - (a) Dilute hydrochloric acid is added to sodium hydroxide solution.
 - (b) Dilute sulphate solution is added to sodium hydroxide solution.
 - (c) Dilute hydrochloric acid is added to marble chips (calcium carbonate)
 - (d) Copper (II) sulphate solution is added to sodium carbonate solution.
 - (e) Dilute sulphuric acid is added to zinc granules.

Item III

During a chemical lesson, learners were introduced to study of organic compounds. This entailed the study of classification of organic compounds, homologous series and alcohols. Unfortunately one of the learner named Kyaligonza missed the lessons after having fallen sick and went back home.

Task

Help Kyaligonza understand and conceptualize the solutions to the following questions. (activity)

- (a) Derive (write) the molecular and structural formula of the first five alkanes and state their names.
- (b) Derive (write) the molecular and structural formula of the first five alkenes and state their names.
- (c) Derive the molecular and structural formula of the first five alcohols and their names.

END