

451/2
COMPUTER STUDIES
PAPER 2
JULY / AUGUST 2009
2 ½ HOURS

JOINT INTERSCHOOLS EVALUATION TESTS JISSET 2009

COMPUTER STUDIES
PAPER 451/2
JULY / AUGUST 2009

INSTRUCTIONS TO CANDIDATES.

- Type your **name** and **index** number at the top right hand corner of each printout.
- Sign and write the date of the examination below the name and index number on each printout.
- Write your name and index number on the diskette.
- Write the name and version of the software used for each question attempted in the answer sheet.
- Passwords **should not** be used while saving in the diskettes.
- Answer all the **questions**
- All questions carry equal marks.
- All answers **must** be saved in your diskette.
- Make a printout of the answers on the answers sheets provided.
- Hand in **all** the printouts and the diskette.

1 (a). Using a word processing package, type the passage below as it appears and save it as A:\CHEMICALSDOC1

(31 marks)

CHEMICAL REACTIONS AND EQUATIONS

Chemical reactions

In form 1 we discussed about mixtures and how they can be separated. A mixture can be separated by physical means as it is formed through a physical or temporary change. A compound is formed by a chemical or permanent change.

Differences between physical and chemical changes

Physical change	Chemical change
No new substance is formed	New substance is formed with different chemical properties
Easily reversible	Not easily reversible
Not accompanied by great energy changes	Accompanied by great energy changes
There is no change in mass	There is change in mass

We can represent a chemical change by use of a chemical equation. A chemical equation is a quantitative summary of investigation into a chemical reaction. It shows how the items are arranged in a given reaction. The equation can be represented using names of reactants and products. This is a word equation. For example when sulphur burns in oxygen, it can be represented as;

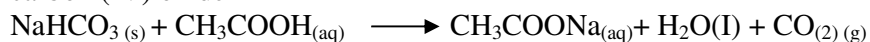
Sulphur + oxygen \longrightarrow sulphur (IV) oxide

When chemical symbols and formulae are used to write the equation, it is called a chemical equation. A chemical equation has the following:

- i. Reactants are written on the left of the arrow. Reactants are substances that go
- ii. through a chemical change
- iii. Products are written on the right of the arrow. Products are the new substances formed after a chemical change
- iv. The physical state at which the substances are is also indicated using a small letter in brackets as shown below.
- v. Symbols of elements and formulae of compounds must be correctly represented
- vi. The equation must be balanced since according to the Law of Conservation of Matter, atoms cannot be created nor destroyed
- vii. The plus + sign on the left means it “reacts with” the arrow \longrightarrow means “to form” and the plus + sign on the right means “and”

For example

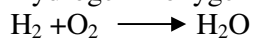
Sodium hydrogen carbonate + Ethanoic acid \longrightarrow Sodium ethanoate solution + water + carbon (IV) oxide



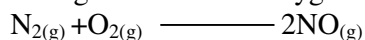
Examples of equations

Write a word and a chemical equation to show burning of hydrogen in air

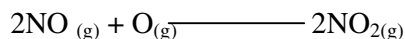
Hydrogen + oxygen \longrightarrow water



Nitrogen reacts with oxygen at high temperatures to form Nitrogen 11 Oxide



Nitrogen (II) oxide is immediately reacts with air to form brown fumes of Nitrogen oxide.



- b). i). spell check the passage (2 marks)
 ii). Select the second paragraph and set the line spacing to 2, and fully justify (6 marks)
 iii). Indent the first line of the second paragraph starting “We can represent a chemical change by use of a chemical” by 1.2 cm (or 0.47”) (2 marks)
 iv). Change the character spacing for the heading “**Chemical reactions**” to expanded. Save the changes as A:\chemical2 (2 marks)

Ci). i). retrieve Chemicalsdoel and add the following text (6 marks)

Uses of sulphur

- It is used as a medicinal drug to treat fungal infections in the skin.
- it is used as an insecticide.
- it is used in the manufacture of carbon disulphide.
- it is in the manufacture of sulphuric acid.
- it is used in the hardening of rubber to make it more useful. This is called vulenniz
- it is used in the manufacture of metals, gun powder, explosives and fire wax.
- it is used in the manufacture of sodium thiosulphate used in photography.
- used in the manufacture of artificial hair dyes.
- manufacture of calcium hydrogensulphate for blanching wood pulp.

ii). Save the changes as A:\chemicals3 (1 mark)

2). As an administrator of the Garden Hardware Company, you are expected to use the spreadsheet to produce accurate monthly sales statistics for each sales area.

Area	December	Area	January	Area	February	Area	March	Area	April
Central	4995	Central	5095	Central	5196	Central	5289	Central	5410
East	6050	East	6161	East	6272	East	6385	East	6499
North	3002	North	3082	North	3163	North	3245	North	3327
NW	4003	NW	4093	NW	4184	NW	4276	NW	4369
SW	6995	SW	7115	SW	7236	SW	7359	SW	7482
South	7995	South	8152	South	8256	South	8389	South	8523
West	2999	West	3079	West	3160	West	3242	West	3324

a). setup a spreadsheet file in the most appropriate format that shows:

- the monthly sales for each area (8 marks)
- the total sales for each month (4 marks)
- the overall total of all areas (4 marks)
- Save it as A:\Company (2 marks)

- b). i). Copy the spreadsheet above to a new sheet (2 marks)
- ii). Rename the new sheet as exam (2 marks)
- iii). Bold, centre, and italicize as a main heading the two-line title: (6 marks)

The Garden Hardware Company
Sales Figures for December to April 2003

- iv). Insert your name and index number as the header of the spreadsheet (2 marks)
- c). The may and June values are calculated as follows

May

- all the areas witnessed a drop of 25 % of the March figures except the Northern region

June

- Central, SW, South and Western areas witnessed an increase in their values by 1200
- The rest of the areas all dropped by 10%

- i). Insert two columns in the worksheet and label them as May and June respectively (2 marks)
- ii). Calculate the figures for all the areas for the months of May and June (8 marks)
- iii). Create a column chart showing the areas and the months of January, February, May and June

- iv). Save the file as A:\chart1 (7 marks)
- print Company, Exam, chart 1 (3 marks)