

**GREENLAWNS HIGH SCHOOL**  
**TERMINAL EXAMINATION YEAR 2017-2018**

**SUBJECT : CHEMISTRY**  
**TIME : 1 ½ HOURS**

**CLASS : VIII**  
**MARKS : 80**

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There are two sections in this paper. All questions in the paper are compulsory. All answers to be written in the answer booklet provided to you. Be neat in your work. All chemical equations must be balanced completely.

**SECTION I**

I A. Name the following: (10)

1. State of matter that has maximum inter- particle force.
2. Conversion of a liquid into a solid state.
3. A metal that is a liquid at room temperature.
4. A pure substance made up of two or more different elements combined chemically in a fixed ratio.
5. Atoms of the same element that have differing mass number (not an example).
6. Distribution of electrons in different shells.
7. This blue paper turns pink in the presence of water vapour.
8. The basic unit of an element.
9. The substance dissolved in a solvent.(not an example)
10. Common name for sodium sulphate decahydrate.

B. Give the English names of the following symbols. (5)

1. Pb      2. B      3. Zn      4. K      5. Li

C. Give the chemical formulae for the following compounds. (5)

1. Sodium sulphate
2. Ferric hydroxide
3. Silver nitrate
4. Calcium bicarbonate
5. Ammonium chloride

D. Give scientific reasons for the following: (5)

1. Pure water is a compound and not a mixture.
2. Gases are highly compressible.
3. Atoms tend to lose, gain or share electrons.
4. Brass is a homogenous mixture.
5. Neon is an inert gas.

E. State any one method to separate the constituents of the following mixtures. (5)

1. Ethyl alcohol and water
2. Ammonium chloride and table salt (sodium chloride)
3. Solution of potassium nitrate and potassium chlorate in water
4. Carbon dioxide and water
5. Iron filings and zinc granules

- F. Differentiate between the following on the basis of what is given in brackets. (5)
1. Sodium atom and sodium ion (charge)
  2. Salt solution and Chalk and water mixture (type of mixture)
  3. Hard and Soft water (lathering with soap)
  4. Metal ball and oil (density)
  5. Cation and anion (charge)

- G. Match the following: (5)

COLUMN A

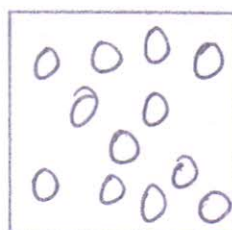
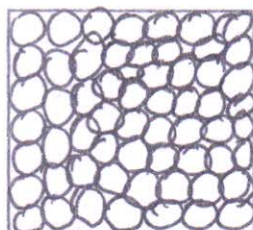
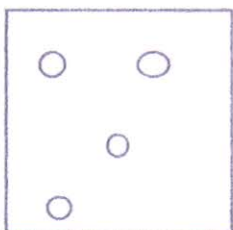
1. blue vitriol
2. washing soda
3. epsom salt
4. green vitriol
5. gypsum

COLUMN B

- a.  $\text{MgSO}_4 \cdot 7\text{H}_2\text{O}$
- b.  $\text{CuSO}_4 \cdot 5\text{H}_2\text{O}$
- c.  $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$
- d.  $\text{CaSO}_4 \cdot 2\text{H}_2\text{O}$
- e.  $\text{FeSO}_4 \cdot 5\text{H}_2\text{O}$
- f.  $\text{Na}_2\text{CO}_3 \cdot \text{H}_2\text{O}$

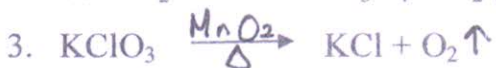
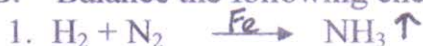
SECTION B

- II A Given below is the schematic representation of the arrangement of particles of matter in its three states. Look at them and answer the questions that follow.



1. Identify the states A, B and C. (1 1/2)
2. Define the process by which (2)
  - a. State B changes to state C
  - b. State B changes to state A
3. On the basis of kinetic theory of matter explain in brief the conversion of state C to state B. (1 1/2)

- B. Balance the following chemical equations. (5)



- III A Both metal 'A' and 'B' react with cold water.

Metal A sinks in the water whereas metal B darts on the surface and burns with a Lilac flame.

1. Write a balanced chemical reaction to show the action of metal A with water. (2)  
Is the reaction exothermic or endothermic.

2. Name the products formed when metal B reacts with water. Also give a test to identify the gaseous product/s. (3)

B. Classify the following substances as efflorescent, deliquescent or hygroscopic. (5)

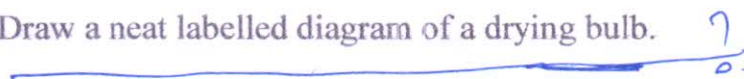
1. solid calcium oxide
2. washing soda
3. ferric chloride crystals
4. blue copper sulphate crystals
5. solid sodium hydroxide

IV A Pick the odd one out. Give reasons for your answers. (4)

1. Sodium, Lithium, Boron, Beryllium
2. Iodine, Fluorine, Bromine, Chlorine
3. Brass, seawater, lime salt petre, gunpowder
4. Copper, Calcium, Silver, Gold

B State whether true or false. If false correct the statement by changing only the underlined word. (4)

1. Sulphur dioxide dissolves in water to form sulphuric acid.
2. Temporary hardness in water is mainly due to calcium and magnesium chlorides in water.
3. Particles of a suspension are visible to the naked eye.
4. Chlorine is a monoatomic molecule.

C. Draw a neat labelled diagram of a drying bulb.  (2)

V A Study the table given below and answer the questions that follow. (4)

Atom of Element	A	Z
E	40	20
F	16	8
G	40	18
H	20	10
I	35	17
J	18	8
K	23	11

1. Identify a pair of isotopes.
2. Which elements are inert gases.
3. Which element has an electronic configuration of 2, 8, 1.
4. How many protons does H contain.
5. How many neutrons does I contain.
6. Which element will form a cation with valency 2.
7. Which element will form an anion with valency 1.

B 1. State the valency of nitrogen in (1 ½)

- a. NO
- b. N<sub>2</sub>O
- c. NO<sub>2</sub>