GREENLAWNS HIGH SCHOOL
CHEMISTRY TERMINAL EXAMINATION 2025-26

STD.8 **MARKS: 80**
DATE:19/09/2025 **TIME: 2 HR.**

NOTE:

1] Answer to this paper must be written on the paper provided separately.
2] You will not be allowed to write during the first 10 minutes. This time is to be spent in reading the question paper.
3] The time given at the head of this paper is the time allowed for writing the answers. This paper has 3 pages (5 sides).
4] Both sections are compulsory.
5] The intended marks for a question or parts of questions are given in the brackets [ ].

SECTION A [40 MARKS]
ALL QUESTIONS IN THIS SECTION ARE COMPULSORY.

QUESTION 1

Choose the most correct answers to the questions from the given options:[1

i) The scientist who discovered the electron is
a) James Chadwick b) J. J. Thomson c) Lord Rutherford d) William crooks

ii) An example of an element is
a) Water b) Common salt c) Carbon dioxide d) Neon

iii) The crystalline allotrope of carbon is
a) Coke b) Charcoal c) Diamond d) Soot

iv) In _____ state the substance has a definite shape and a definite volume
a) Plasma b) Liquid c) Solid d) Gaseous

v) The symbol for Potassium is
a) P b) Pt c) K d) Po

vi) If an element is represented as $^{27}_{13}X$ then the number of neutrons in it is
a) 27 b) 14 c) 13 d) 20

vii) The shell which has the maximum capacity to accommodate 32 electrons is
a) K shell b) L shell c) M shell d) N shell

viii) The elements which show the properties of both metals and non-metals are known as
a) Inert elements b) Metalloids c) Noble elements d) Allotropes

ix) The carbon occurs in free state as

a) Fossil fuel b) Graphite c) Carbon dioxide d) Carbohydrates

x) The sub-atomic particles of an atom of an element are

a) Protons b) Electrons c) Neutrons

d) All of the above

Q.2] A] Write the symbols of the following elements [5]

i) Silicon ii) Boron iii) Hydrogen iv) Phosphorus v) Magnesium

vi) Carbon vii) Calcium viii) Sulphur ix) Argon x) Helium

B] Write the English names of the elements represented by the following symbols. [5]

i) Be ii) Na iii) Al iv) Fe v) F

Q.3] A] Draw a neat labelled structure of Potassium atom $^{35}_{17}Cl$ **[3]**

B] Name the most appropriate technique to separate the components of the following mixtures: [7]

i) Sulphur powder (insoluble) from its mixture with water.

ii) Common salt from salt solution.

iii) Weeds from the bundle of green leafy vegetables.

iv) Coconut oil from a mixture of coconut oil and water.

v) Alcohol from its mixture with water.

vi) Cobalt from its mixture with chalk powder.

vii) Ammonium chloride from its mixture with salt.

Q.4] A] Complete the table given below by writing your answers for i to vi as i - , ii - , iii - , iv - and so on. Do not copy the table. [3]

Element	Atomic number	Atomic mass number	Proton number	Neutron number	Electron number
X	15	i	ii	16	iii
Y	iv	v	vi	6	6

Contd…….

B] Name the following: (Do not give examples unless it is asked) **[7]**

i) The metal foil used by Rutherford in his experiment while discovering the atomic nucleus.

ii) The electrons revolving in the shell close to the nucleus which are held by strong pull of protons present in the nucleus.

iii) The separation technique which speeds up the process of settling of fine insoluble particles in a liquid which otherwise would have taken more time.

iv)The number of electrons donated or accepted by an atom which also indicates the combining capacity of an element.

v) An impure substance where two or more components are mixed in any proportion.

vi) The process in which the matter changes from one state to another and back without altering its chemical composition.

vii) The sub-atomic particle with negligible mass.

SECTION B [40 MARKS]
ALL QUESTIONS IN THIS SECTION ARE COPULSORY

Q.5] A] Copy the table given below and complete it. **[6]**

Property	Solid	Liquid	Gas
Intermolecular Forces			
Density			

B] An element Oxygen has 8 protons and 8 neutrons. **[4]**

With the information given above answer the following questions with respect to Oxygen atom.

i) Write the atomic number and atomic mass number.

ii) Name the valence shell and the number of electrons present in it.

iii) Write its valency and based on it state whether it is a monovalent, divalent or trivalent element.

iv) Is the atom reactive or unreactive?

Contd…….

Q.6] A] Distinguish between the following pairs on the basis of what is given in the brackets. **[6]**

i) Homogeneous mixture and Heterogeneous mixture (appearance as phase)

ii) Thomson's atomic model and Rutherford's atomic model (location of positively charged particles and negatively charged particles)

iii) Diamond and Graphite (structure)

iv) Compounds and mixtures (method of separation of components)

v) Wood charcoal and Sugar charcoal (method of preparation)

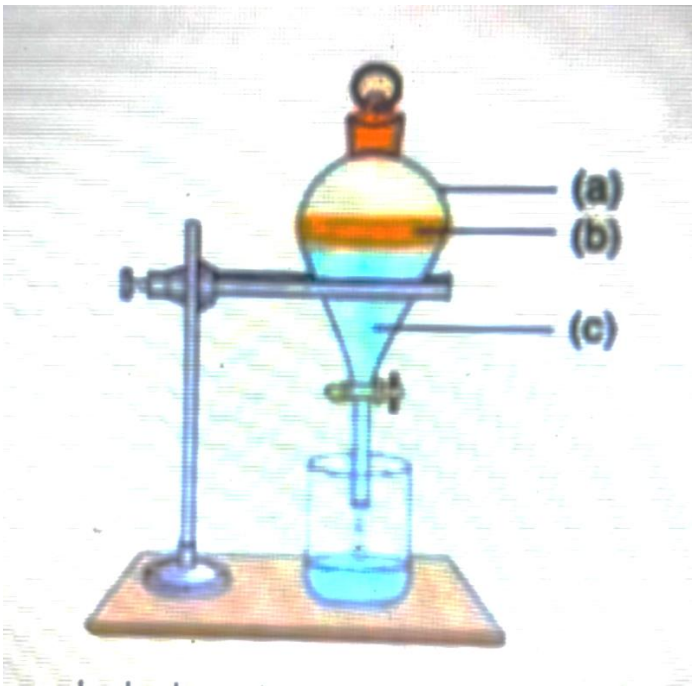
vi) Neutron and Electron (charge)

B] i) Define Isotopes and Isobars. **[2]**

ii) Identify the isotopes and isobars from the following: **[2]**

a) $^{40}_{20}Ca$, $^{40}_{18}Ar$ b) $^{1}_{1}H$, $^{2}_{1}H$, $^{3}_{1}H$

Q.7] A] Observe the given figure and answer the questions that follow: **[4]**



i) Name the apparatus shown in the figure.

ii) Which type of mixture is separated by using the above apparatus? (Do not give an example.)

iii) Give reason for the formation of two distinct layers in the apparatus.

iv) Give one example of mixture which can be separated by using the above apparatus.

Contd……

B] Define **[4]**

i) Allotropy ii) Electronic configuration iii) Compounds iv) Atomic number

C] Name the types of - i) Lowest ranked coal ii) Highest ranked coal **[2]**

Q.8] A] Identify the allotrope of carbon in each case with the help of the information given below: **[5]**

i) One which can be converted into diamond when subjected to high temperature and pressure in the presence of a catalyst.

ii) A high carbon product obtained by the destructive distillation of coal and is considered to be an almost pure form of carbon.

iii) It finds its application in the manufacture of black shoe polish, carbon paper, printing ink, black paint, an eye cosmetic etc.

iv) It is used as a high precision instrument by eye surgeons to remove cataract from the eyes.

v) It is formed by the carbonization of organic matter under high pressure and temperature in the absence of oxygen and is widely used as fossil fuel.

B] Give any three features of the modern standard model of an atom. **[3]**

C] State the law of conservation of mass in terms of reactants and products. **[2]**