

GREENLAWNS HIGH SCHOOL
FINAL EXAMINATION
CHEMISTRY
VIII – 10/03/26

Maximum Marks: 80

Time allowed: Two hours

Answers to this Paper must be written on the paper provided separately.

The time given at the head of this Paper is the time allowed for writing the answers.

Section A is compulsory. Attempt all four questions from Section B.

The intended marks for questions or parts of questions are given in brackets [].

SECTION A
(Attempt all questions)

Question 1

Choose the correct answers to the questions from the given options.

(Do not copy the question, Write the correct answer only.)

[15]

(i) Exposure to light can cause chemical changes such as

- | | |
|---------------------|----------------------|
| (a) boiling | (b) electroplating |
| (c) change in shape | (d) fading of colour |

(ii) Dissolving of sugar in sugar syrup is best classified as

- | | |
|------------------------------|--------------------------------|
| (a) periodic and desirable | (b) slow and undesirable |
| (c) reversible and desirable | (d) irreversible and desirable |

(iii) Cut surface of potato turns ____ when left open in the air.

- (a) brown (b) black
(c) red (d) yellow

(iv) Lightning of incandescent bulb generates



- (a) heat and light both (b) neither heat nor light
(c) only heat (d) only light

(v) Electron is represented as

- (a) ${}^0_0e^1$ (b) ${}^0_1e^0$
(c) ${}^{-1}_1e^0$ (d) ${}^0_0e^{-1}$

(vi) Isobars shows difference in density because of

- (a) same 'A' but different 'Z' (b) same 'Z' but different 'A'
(c) different 'A' and 'Z' (d) same 'A' and 'Z'

(vii) Deuterium contains __i__ neutrons, __ii__ protons and __iii__ electrons.

- (a) i. 0. ii. 1 iii. 0 (b) i. 1. ii. 0 iii. 1
(c) i. 1. ii. 1 iii. 1 (d) i. 1. ii. 1 iii. 0

(viii) Iron shows variable valency of

- (a) Fe^{1+} & Fe^{2+} (b) Fe^{2-} & Fe^{3-}
(c) Fe^{2+} & Fe^{3+} (d) Fe^{2+} & Fe^{3-}

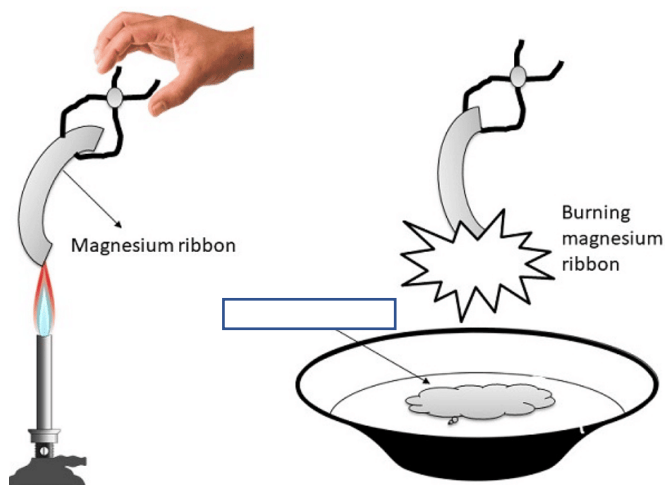
- (ix) Carbon dioxide is used in the production of
- (a) N P K fertilizer (b) urea
(c) D A P fertilizer (d) S S P fertilizer
- (x) Carbogen contains
- (a) 95% O₂ and 5% CO₂ (b) 95% O₃ and 5% CO₂
(c) 95% O₂ and 5% CO (d) 95% CO₂ and 5% O₂
- (xi) P₄ molecule is regarded as
- (a) monoatomic molecule (b) tetra atomic molecule
(c) triatomic molecule (d) diatomic molecule
- (xii) _____ is a molecule/polyatomic ion with a positive charge.
- (a) Ammonium (b) Ammonia
(c) Aluminium (d) Carbonate
- (xiii) Chemical which can be used for the preservation of the hydrogen peroxide
- (a) glycerol (b) glycol
(c) glucose (d) glycogen
- (xiv) Oxides which are neither acidic nor basic
- (a) CO₂ and NO₂ (b) CO and NO₂
(c) CO₂ and NO (d) CO and NO
- (xv) Carbon monoxide is used in the preparation of
- (a) oxygen gas (b) hydrogen gas
(c) chlorine gas (d) helium gas

Question 2

- (i) Write the chemical formula of :- [5]
- (a) Aluminum oxide (b) Sodium carbonate
- (c) Potassium nitrate (d) Calcium hydroxide
- (e) Ferric sulphate
- (ii) Complete the following by choosing the correct answers from the bracket. [5]
- (a) Lime water is a common name for _____.
[calcium oxide / calcium hydroxide]
- (b) CO is a _____ agent. [reducing / oxidising]
- (c) Zinc and Aluminum oxides behave as _____ oxides.
[neutral / amphoteric]
- (d) Zinc sulphate is completely dissolved in water to carry out a chemical reaction, it will be represented in chemical equation as _____ [ZnSO₄(aq) / ZnSO₄(l)]
- (e) Anode experiment was performed by _____ [Goldstein / Thomson]
- (iii) Match the following [5]
- | | |
|-------------------------------------|-----------------|
| (1) Plant litter forming a manure | a. Exothermic |
| (2) Rotting of food stuff | b. Displacement |
| (3) CaO + H ₂ O | c. Undesirable |
| (4) N ₂ + O ₂ | d. Desirable |
| (5) CuSO ₄ + Zn | e. Endothermic |

- (iv) The diagram below shows the setup of apparatus for the burning of the magnesium ribbon in the laboratory.

[5]



- (a) Name the product formed.
- (b) Write your observation.
- (c) Give the balance chemical equation representing above reaction.
- (d) Identify the type of reaction.
- (e) Nature of the product formed is acidic/basic/neutral.
- (v) Complete and rewrite the balanced chemical equations.

[5]

- (a) $\text{BaCl}_2 + \text{H}_2\text{SO}_4 \rightarrow \text{ ____ } + 2\text{HCl}$.
- (b) $\text{Na} + \text{H}_2\text{O} \rightarrow \text{NaOH} + \text{H}_2$
- (c) $\text{HCl} + \text{NH}_3 \rightarrow \text{ __________ }$
- (d) $\text{KClO}_3 \rightarrow 2\text{ ____ } + \text{O}_2$
- (e) $\text{Pb}(\text{NO}_3)_2 + \Delta \rightarrow \text{PbO} + \text{NO}_2 + \text{O}_2$

SECTION B

(Attempt all the questions)

Question 3

- (i) Define :- (a) isotopes (b) radicals [2]
- (ii) Discuss the limitations of chemical equation. [2]
- (iii) Give three properties of CO. [3]
- (iv) List at least two types of changes taking place in the below examples :- [3]
- (a) Rusting of iron nails. (b) Curdling of milk.
- (c) Lightning of match stick.

Question 4

- (i) What is asphyxia? Which harmful compound is formed in body during asphyxia? [2]
- (ii) Differentiate between :- [2]
- (a) periodic changes and non periodic changes (definition)
- (b) physical changes and chemical changes (definition)
- (iii) State Bohr-Burry rules for electron distribution in an atom. [3]
- (iv) Define chemical equation. [3]
- List 2 changes that may occur during a chemical reaction.

Question 5

- (i) List the four conditions necessary for chemical changes. [2]
- (ii) Write Rutherford's suggestion about the location and size of the nucleus [2]
- (iii) Explain the use of carbon dioxide as [3]
- (a) a greenhouse gas.
 - (b) in baking industry.
 - (c) in the preparation of aerated drinks.
- (iv) $\text{H}_2\text{S} + \text{Cl}_2 \rightarrow 2\text{HCl} + \text{S}$ [3]
- (a) Identify the reactant which is oxidize and one which is reduced in above reaction.
 - (b) Why the above reaction is termed as a redox reaction?

Question 6

- (i) Give reasons for the following :- [2]
- (a) Soda acid fire extinguisher is ineffective against oil fires.
 - (b) Running of a car engine for a long time in closed garage possess the risk of poisoning.
- (ii) Name the gases formed during thermal decomposition of CaCO_3 and CuSO_4 . [2]
- (iii) Draw the atomic orbital diagram of sulphur $_{16}^{32}\text{S}$. [3]
- (iv) What is molecule? [3]
Name two types of molecules. Give one example of each type.