

GREENLAWNS HIGH SCHOOL
SEMESTER I EXAMINATION
CHEMISTRY
VIII – 6/10/26

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 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.

[15]

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

(i) Naphthalene balls becomes smaller by time due to

(a) evaporation

(b) melting

(c) sublimation

(d) deposition

(ii) Black diamonds have _____ impurity present in them.

(a) copper sulphate

(b) copper nitrate

(c) copper oxide

(d) copper chloride

(iii) Assertion (A) : Particles of matter are always in a state of random motion.

Reason (R) : This random motion is a result of kinetic energy possessed by a matter.

- (a) Both A and R are true and R is a correct explanation for A.
- (b) Both A and R are true and R is not a correct explanation for A.
- (c) A is true but R is false.
- (d) A is false but R is true.

(iv) Lead exhibit the variable valency of

- (a) Pb^+ & Pb^{2+}
- (b) Pb^{2+} & Pb^{3+}
- (c) Pb^{4+} & Pb^{2+}
- (d) Pb^+ & Pb^{4+}

(v) Maximum capacity of M shell

- (a) 2
- (b) 8
- (c) 16
- (d) 18

(vi) Element Arsenic is a

- (a) metal
- (b) metalloid
- (c) non-metal
- (d) inert

(vii) Liquefaction is carried out by i pressure and ii temperature.

- (a) (i) decreasing (ii) increasing
- (b) (i) increasing (ii) decreasing
- (c) (i) increasing (ii) increasing
- (d) (i) decreasing (ii) decreasing

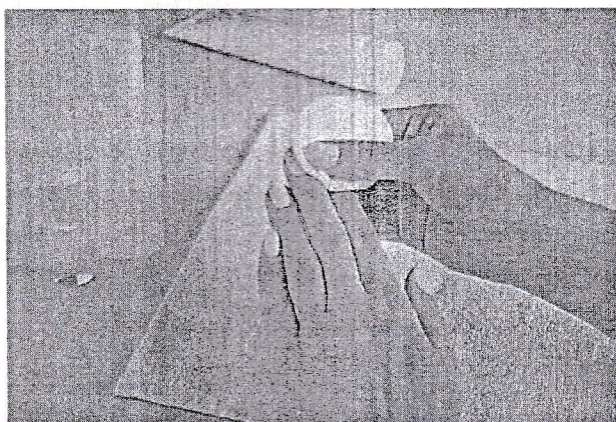
(viii) Alum is used to increase the rate of sedimentation by _____ process.

- (a) sedimentation
- (b) decantation
- (c) crystallisation
- (d) loading

(ix) The biggest diamond ever found was mined in

- (a) India
- (b) South America
- (c) South Africa
- (d) South Korea

(x) Solvent used by girl to remove nail polish is



- (a) water
- (b) acetone
- (c) petrol
- (d) oxalic acid

(xi) Out of the following identify the non-homogeneous substance.

- (a) tap water
- (b) milk
- (c) brass
- (d) pizza

(xii) Purest form of amorphous Carbon

- | | |
|-------------------|--------------------|
| (a) Wood charcoal | (b) Sugar charcoal |
| (c) bone charcoal | (d) Lampblack |

(xiii) J. Chadwick is credited for the discovery of

- | | |
|-------------|---------------|
| (a) Protons | (b) electrons |
| (c) nucleus | (d) neutrons |

(xiv) Is not a property of hydrogen gas.

- | | |
|-----------------------|----------------------------------|
| (a) Indefinite volume | (b) No fixed shape |
| (c) Can not flow | (d) Weakest intermolecular force |

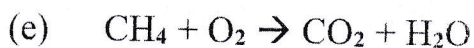
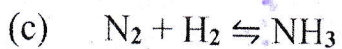
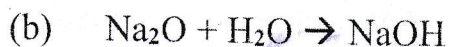
(xv) Element which attend chemical stability by duplet rule.

- | | |
|--------------|-----------------|
| (a) hydrogen | (b) hydrargyrum |
| (c) helium | (d) hafnium |

Question 2

(i) Write the balanced chemical equations for the following reactions :-

[5]



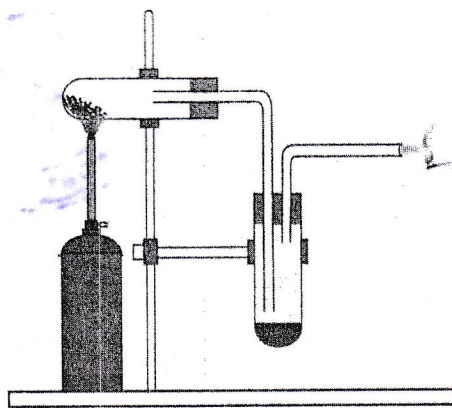
(ii) Complete the following by choosing the correct answers from the bracket. [5]

- (a) Wood charcoal is used in making water purifier filters and sieves due to its high ____ capacity. [absorbing/adsorbing]
- (b) Nitride is a ____ negative radical. [trivalent/bivalent]
- (c) ____ proposed nucleus is centrally located positive mass.
[Neil Bohr/Rutherford]
- (d) Elements and compounds are pure and ____.
[homogeneous/heterogeneous]
- (e) When pressure is increase and temperature is decrease air changes into ____ state. [liquid/vapour]

(iii) Match the following :- [5]

- | | |
|--------------------------------|-----------------|
| (1) $(\text{CO} + \text{N}_2)$ | a. metal |
| (2) $(\text{CO} + \text{H}_2)$ | b. non-metal |
| (3) phosphorus | c. producer gas |
| (4) potassium | d. gas carbon |
| (5) arc lamps | e. water gas |

(iv) Observe the figures given below and answer the following questions. [5]



- (a) What is destructive distillation?
- (b) What is the colour of the vapour given out in the destructive distillation of coal?
- (c) Destructive distillation of coal $\longrightarrow$ Coke + _____ + _____ + _____

(v) Write the formula/name of the following compounds as applicable:

[5]

- | | |
|-------------------------|--------------------|
| 1. Ammonium nitrate | 2. Sodium sulphate |
| 3. Calcium hydroxide | 4. HNO_3 |
| 5. H_2S | |

SECTION B

(Attempt any four questions)

Question 3

- (i) Define (i) diffusion (ii) deposition. [2]
- (ii) What is fractional crystallization? Give an example of this type of mixture. [2]
- (iii) Draw the atomic orbital diagram of $^{39}_{19}\text{K}$. [3]
- (iv) How is coke used in extraction of metal? [3]
Name the metallic carbide compound prepared using coke.
Give the appearance of hard coke

Question 4

- (i) How is activated charcoal prepared? [3]
Explain use of wood charcoal in medicine.
- (ii) Write three ways to make chemical equations more informative.? [3]
- (iii) Define Isotopes? [4]
Name and draw the three isotopes of hydrogen?

Question 5

- (i) What is atomicity? [3]
Give the atomicity of ozone and Sulphur.
- (ii) Define melting, freezing and liquefaction. [3]

(iii) Write four properties of fullerenes.

[4]

Question 6

(i) Why gases can be compressed?

[2]

(ii) How artificial diamonds are produced in modern laboratories?

[2]

(iii) Give three significance of molecular/chemical formulae.

[3]

(iv) Name the natural mineral of graphite.

[3]

Write two chemical equations representing preparation of artificial graphite.