

**GREENLAWNS HIGH SCHOOL
SCIENCE FINAL EXAMINATION 2022-23**

STD. 7

TIME: 1.5 HRS.

DATE:

MARKS: 80

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 paper.**
- 3] The time given at the head of this paper is the time allowed for writing the answers. This paper has 8 pages.**
- 4] Both the Sections are compulsory. Each Section carries 40 marks.**
- 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

A] Name the following: [5]

- 1) The ray of light that strikes the reflecting surface.
- 2) The organisms that cause diseases in plants, animals and humans. (Do not give an example)
- 3) A substance that affects the rate of a chemical reaction without participating in the reaction.
- 4) An example of a noble metal.
- 5) The process in which the jute fibres are separated from stem using bacteria.

Contd.....

B] Fill in the blanks. [5]

- 1) A _____ is a flat two-dimensional surface with no thickness.
- 2) When the molecules of the reactants come in close contact with each other then the _____ of the participating atoms may change.
- 3) The process in which an organism take in food and utilize it for growth and development is called _____.
- 4) When copper is exposed to the atmosphere, it slowly forms green deposits of Copper carbonate called _____.
- 5) The organisms which can prepare their own food show _____ nutrition.

QUESTION 2

A] Define: [5]

- 1) Ductility
- 2) Pathogens
- 3) Virtual image
- 4) Heterotrophic nutrition
- 5) Incident ray

B] Write the energy conversion taking place in each of the following cases when they are in working condition: [5]

- 1) Loudspeakers
- 2) Solar cells
- 3) Washing machine
- 4) Toaster
- 5) Burning of fire crackers

Contd.....

QUESTION 3

A] Match the columns.

[5]

A

B

- | | |
|------------------------|---|
| 1) Pickling | i) digestion related problems |
| 2) Antibiotics | ii) Bacillus thuringiensis |
| 3) E. coli | iii) Vitamin K |
| 4) Probiotics | iv) Aureomycin |
| 5) Genetic engineering | v) Lactobacillus & acetic acid Bacteria |
| | vi) Rhizobium |

B] State whether the following statements are true or false.

If false then correct and write the corrected statements. **[5]**

- 1) Electromagnets convert magnetic energy into electrical energy.
- 2) A solution of a reactant in water is called its aqueous solution.
- 3) A nonmetal which exists in liquid state at room temperature is Mercury.
- 4) Salmonella typhi is the causative bacteria for Typhoid fever
- 5) Liverworts and mosses are the examples of flowering plants.

Contd.....

QUESTION 4

[5]

A] 1) What is corrosion? What is it also known as?

2) Name three metals which undergo corrosion.

3) Give three examples of metal which generally do not corrode.

B] Observe the figure given below and answer the questions that follow:

[5]

If the angle between the mirror and incident ray is 35° , then find –

1) angle of incidence

2) angle of reflection.

3) State the law of reflection used by you in calculating the answer of Q.4B - 2

4) angle between the reflected ray and the mirror

5) angle between the incident ray and the reflected ray

Contd....

SECTION B [40 MARKS]

ALL QUESTIONS IN THIS SECTION ARE COMPULSORY.

QUESTION 5

A] Distinguish between the metals and non-metals on the basis of following points: (Do not give any exceptions in each point) **[5]**

- 1) Malleability
- 2) Electrical conduction
- 3) Formation of ion
- 4) Lustre
- 5) Sonority

B] Give scientific reasons: **[5]**

- 1) Stainless steel is used in making surgical instruments.
- 2) The start of a roller coaster is always at a height.
- 3) It has become easier to study the evolutionary history of organisms.
- 4) Lot of heat is needed to melt an iron object.
- 5) Mushrooms are saprophytic fungi.

QUESTION 6

A] 1) Explain the following terms with respect to a chemical reaction- a) Reactants b) Products **[2]**

2) Which characteristic is observed in each of the following cases: **[3]**

- a) Rusting of an iron nail
- b) Water decomposes into hydrogen gas and oxygen gas when an electric current is passed through it.
- c) When hydrochloric acid reacts with sodium hydroxide, the container becomes hot.

Contd....

- B]** 1) Give any two ways in which bacteria can be harmful to us. [2]
- 2) Name the two groups into which flower bearing plants are classified? [2]
- 3) What is the plant body of a non-flowering plant generally known as? [1]

QUESTION 7

- A]** 1) Write any three characteristics of the image formed, when an object is kept in front of a plane mirror. [3]
- 2) Give any two uses of a plane mirror. [2]

- B]** 1) Classify the chemical reactions given below into Combination reaction or Decomposition reaction [3]
- a) Formation of iron sulphide on heating iron with sulphur.
- b) Calcium carbonate on heating forms Calcium oxide and Carbon dioxide.
- c) Hydrogen reacts with water to form water.

- 2) State the law of conservation of energy. [2]

Contd.....

QUESTION 8

A] Observe the figure given below and answer the questions that follow: **[5]**

- 1) Which type of reflection is shown in the figure?
- 2) Which type of surface is needed for the reflection mentioned by you in answer 8 A-1?
- 3) Are the laws of reflection obeyed in the type of reflection shown in the figure?
- 4) Will the reflection in the figure helps in formation of an image?
- 5) How is the reflection shown in the figure is useful to us?

Contd.....

B] Observe the diagram given below and answer the questions that follow: **[5]**

- 1) In which test tube/s the iron nail will rust? Why?
- 2) In which test tube/s the iron nails will not rust? Why?
- 3) Name any two techniques to prevent rusting of iron.
(Do not describe them)

BEST OF LUCK