

**GREENLAWNS SCHOOL, WORLI**  
**TERMINAL EXAMINATION - 2024**  
**SCIENCE**

Std: VII

Marks: 80

Date: 03/10/2024

Time: 2 hours

Attempt all questions. Diagrams to be drawn with a pencil.

Figures to the right indicate the marks [ ]

**Q I) Choose one correct answer to the questions from the given options: [10]**

- a. The maximum volume of a liquid that can be stored in a container is called its:  
(i) Volume            (ii) Capacity            (iii) Velocity            (iv) Acceleration
- b. Allergic rhinitis is caused due to :  
(i) Mites            (ii) Dust            (iii) Sunlight            (iv) Pollen grains
- c. The Latin name of gold is:  
(i) Argentum            (ii) Ferrum            (iii) Aurum            (iv) Kalium
- d. Brownian motion and diffusion are fastest in:  
(i) Solids            (ii) Liquids            (iii) Gases            (iv) Same in all
- e. Which of the following helps significantly in the derivation of chemical formula of compounds:  
(i) Atomicity            (ii) Valency            (iii) Mass number            (iv) None
- f. Allergens such as aerosols, cosmetics, certain soaps and detergents cause:  
(i) Skin Allergy            (ii) Oral Allergy            (iii) Nasal Allergy            (iv) Food Allergy
- g. Comma shaped bacteria are termed as:  
(i) Bacilli            (ii) Vibrio            (iii) Spirilla            (iv) Cocci
- h. Which of the following is an example of potential energy:  
(i) A ball rolling across the floor            (ii) A stretched rubber band  
(iii) Heat from an oven            (iv) Playing the guitar
- i. The scientist to propose the five-kingdom classification of living organisms is:  
(i) R.H Whittaker            (ii) Carolus Linnaeus  
(iii) Dmitri Mendeleev            (iv) John Dalton
- j. A mixture of ammonium chloride and sand can be separated by:  
(i) Chromatography            (ii) Separating funnel  
(iii) Sublimation            (iv) Centrifugation

**Q II A) State whether the following statements are true or false. If false, rewrite the correct statement by changing the underlined word / words: [5]**

- a. Mycorrhiza is a mutually beneficial relationship between plant roots and some bacteria.
- b. Acceleration is a scalar quantity.

- c. The water molecules produce two radicals: hydroxyl ion ( $\text{OH}^-$ ) and hydronium ion ( $\text{H}_3\text{O}^+$ ).
- d. The S.I unit of weight is kilograms.
- e. Maglev trains float slightly above their tracks using magnetic repulsion.

**Q II B) Fill in the blanks:** **[4]**

- a. Algae are simple plants characterized by an undifferentiated plant body called \_\_\_\_\_.
- b. \_\_\_\_\_ is the transfer of heat due to the actual movement of particles as a result of temperature difference.
- c. The meniscus of water inside a measuring cylinder is concave while that of mercury will be \_\_\_\_\_.
- d. \_\_\_\_\_ is a common allergic reaction that is often hereditary.

**Q II C) Match the following:** **[5]**

- |                      |                                  |
|----------------------|----------------------------------|
| a. Cohesive force    | i. Outward force due to rotation |
| b. Random motion     | ii. Liverworts and mosses        |
| c. Fronds            | iii. Movement of housefly        |
| d. Centrifugal force | iv. Inter-particle force         |
| e. Rhizoids          | v. Leaves of ferns               |

**Q II D) Complete the correlation:** **[5]**

- a. Radical: highly reactive :: Molecule: \_\_\_\_\_
- b. Euglena: flagellum:: \_\_\_\_\_: cilia
- c. Freezing: melting ::Evaporation: \_\_\_\_\_
- d. Chlorine: monovalent :: Oxygen:\_\_\_\_\_
- e. Distance: \_\_\_\_\_ :: Speed : Velocity

**Q II E) Define the following terms:** **[4]**

- |                         |                      |
|-------------------------|----------------------|
| a. Ignition temperature | c. Valence electrons |
| b. Distillation         | d. Allergen          |

**Q II F) Give two examples each of:** **[5]**

- a. Cone-bearing plants
- b. Diseases caused by bacteria
- c. Multiple motion
- d. Polyatomic elements
- e. Fungi used in medicinal and commercial products

**Q III A) Give scientific reasons for the following:** **[4]**

- a. Priya travels 30 km in first hour and 10 km in the second hour but her average speed turns out to be 20 km/h .
- b. When hot water is poured into a glass tumbler, it cracks.
- c. Milk and tea are mixtures although they appear to be pure substances.
- d. Euglena is a unique protist.

**Q III B) Solve the following numericals:**

- a. A copper piece of mass 179.2 g is immersed in water in a measuring cylinder. The level of water rises from 40 ml to 60 ml. Find the density of copper.

**[2]**

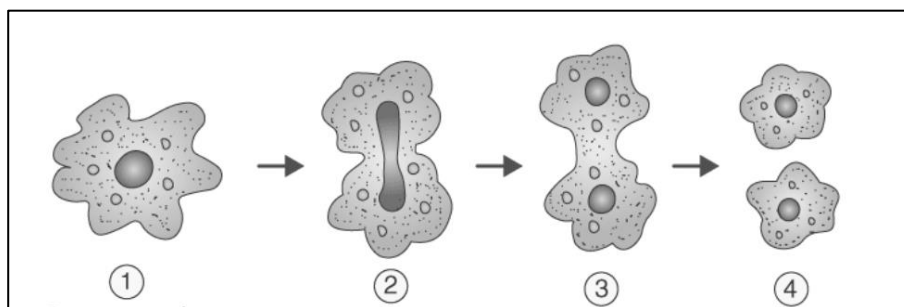
b. The maximum temperature on a summer day in a city was 104°F.  
Convert this temperature into Celsius scale and Kelvin scale. [3]

c. Classify the following as elements or compounds: [2]

Sr. No.	Name	Element/ Compound
1.	Sodium nitrate	a.
2.	Magnesium chloride	b.
3.	Nitrogen	c.
4.	Zinc sulphide	d.

**Q.IV) Answer the following diagram-based questions:**

**A) Observe the process shown in amoeba given below and answer the questions that follow:**

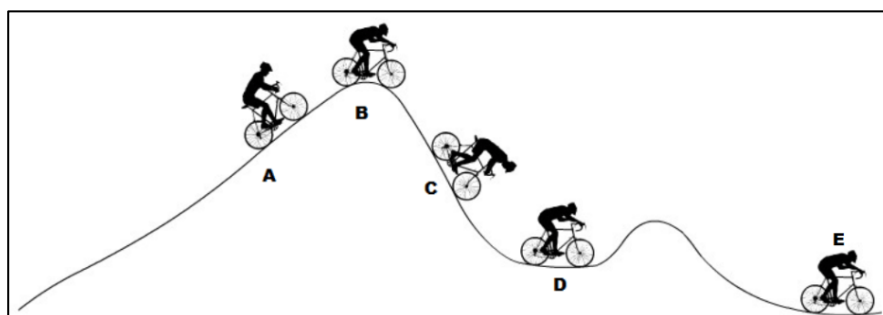


a. Name the method of reproduction shown in the above diagram. [1]

b. Discuss the method of division in brief. [2]

c. Is there any other way of reproduction in amoeba? If yes, name the method and state under what conditions does that happen? [2]

**B) The picture given below depicts a bicycle rider travelling similar to that of a roller coaster. Give reasons for the following:**

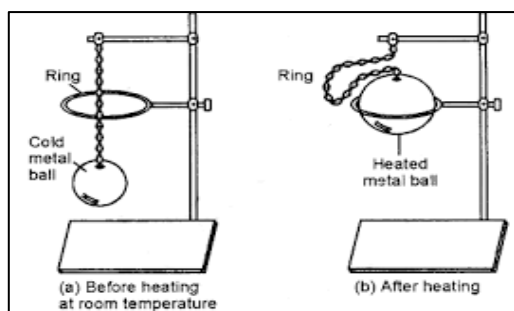


a. Total energy in the ride remains constant. [1]

b. Potential energy of the rider is maximum at point B and zero at point E. [1]

c. The rider gains kinetic energy at point D and loses its potential energy. [1]

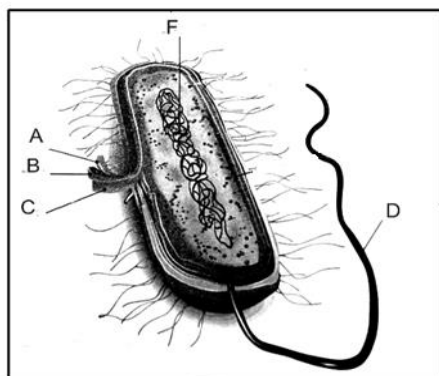
**C) Observe the experiment given below and answer the questions that follow:**



- a. What do you conclude from the experiment? [1]
- b. Give an example of this experiment that finds its application in daily life. [1]

**QV) Do as directed:**

**A) Observe the structure given below and answer the questions that follow:**



- a. Which cell is shown in the given diagram? Label the parts 'A', 'B', and 'C'. [4]
- b. List any one function of parts 'A' and 'D'? [2]
- c. Discuss the importance of part 'F' and state what is the cell type based on this part. [2]

**B) Complete the table by writing the chemical formula of the following compounds:**

Sr. No.	Name	Chemical formula
1.	Calcium carbonate	a)
2.	Ammonium hydroxide	b)
3.	Potash	c)
4.	Baking Soda	d)

**Q VI A) Answer the following questions:**

- a. What is a Periodic Table? Mention the number of vertical columns and the horizontal rows in a periodic table and what are they called. [3]
- b. How is heat loss by convection, conduction and radiation (all three) prevented in a Vacuum flask? [2]
- c. Explain the principle on which a Separating funnel works. Discuss the structure and use of the apparatus in brief. [2]

**Q VI B) Draw a neat labelled diagram of the fungus Rhizopus. [2]**

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