

Section A

Question 1

[10]

Direction: Each question has four options. Choose the most correct option and circle it.

- i A student burns a piece of paper and observes ash and smoke. What type of change is this?
 - A Physical change
 - B Chemical change
 - C Reversible chemical change
 - D No change

- ii Which of the following best explains why water and oil form separate layers when mixed?
 - A Different densities and immiscibility
 - B Oil dissolves in water
 - C Water evaporates quickly
 - D Water is heavier than oil

- iii Boiled water forms more lather compared to tap water. This explains that tap water is
 - A Hard water
 - B Soft water
 - C Clean
 - D Impure

- iv A student observed the same mass for a stone at home and school. What can we conclude?
 - A Mass is changing
 - B Weight is changing
 - C Mass remains same at all places
 - D Gravitational force is changing

- v The image formed by a plane mirror is
- A Inverted
 - B Smaller
 - C Real
 - D Laterally inverted
- vi What is the pH of a neutral solution?
- A 1
 - B 7
 - C 10
 - D 14
- vii Which element has the symbol 'Fe'?
- A Fluorine
 - B Ferrium
 - C Iron
 - D Francium
- viii The gravitational force is greater at
- A The equator
 - B The poles
 - C The moon
 - D The sea level
- ix Which animal class lays eggs and has feathers
- A Mammals
 - B Amphibians
 - C Birds
 - D Reptiles

- x Which method is best for separating salt from sea water?
- A Filtration
 - B Sedimentation
 - C Evaporation
 - D Decantation

Question 2

[5]

Direction: Fill in the blanks with correct words

- a. The _____ indicator is used to test how acidic or alkaline a substance is.
- b. The gravitational force acting on a body is called _____.
- c. Oil floats in water because it has _____ density than water.
- d. _____ objects allow some light to pass through but not fully.
- e. Amphibians have folds of skin between their toes known as _____.

Question 3

[10]

Direction: State whether each statement is True or false in the brackets given below

- a. Lather formation is more in hard water than soft water. ()
- b. A separating funnel can separate two immiscible liquids. ()
- c. In plane mirror, the image formed is laterally inverted. ()
- d. Distilled water contains all essential minerals and is ideal for drinking. ()
- e. A molecule is made up of atoms, which may be of same or different types. ()
- f. When water freezes, it becomes new substance. ()
- g. Amphibians are cold-blooded water and only live in water. ()
- h. Mass changes when we travel from earth to moon. ()
- i. Mercury is an element and its symbol is Mg. ()
- j. Gravity increases with increase in altitude. ()

Question 4**[5]**

Direction: Match each item in Column I with the most appropriate item in Column II. Write only the alphabet against the number in the space provided below.

Column I	Column II
i. No new substance is formed	a. Iron
ii. Fe	b. Lateral inversion
iii. The appearance of left side of an object as right side in image	c. Chemical change
iv. Weight	d. kgf
v. Hard water	e. distillation
	f. Physical change

i	
ii	
iii	
iv	
v	

Section B

Question 5

[6]

Direction: Answer all the questions in the space given below

- i. Give two differences between physical and chemical change with examples. [3]

- ii. Analyze the use of mirror in vehicles. How does the nature of image help drivers? [2]

- iii. Why distilled water is not preferred for drinking even though it is the purest form of water? [1]

Question 6**[6]**

- i. If you weigh 30 kgf on the Earth, evaluate how much will you weigh on the moon? [2]

- ii. A friend suggested using filter paper to separate salt from seawater. Do you agree? Justify your answer. [2]

- iii. Why is universal paper preferred over litmus paper? Give two reasons. [2]

Question 7**[8]**

- i. Write differences between transparent and translucent objects along with examples. [2]

- ii. Describe the steps on how you will separate salt from sea water. [2]

- iii. Tashi's weight is less on Moon than on Earth, but his mass remains the same. Explain why his weight changes while his mass does not? [2]

- iv. Suggest any two experiments you can do at home to show chemical changes. Mention what you will observe in each. [2]

