1st Term Worksheet

Subject – Chemistry

Class – VII

Name : **Sec. :**

Chapter – 2
[Physical and Chemical Changes]

Check Point: **[29]**

[A] Answer the following questions:

1. **Classify the following changes into fast and slow changes:**

Explosion of a cracker, tooth decay, growth of a plant, fading of flowers, burning of cooking gas, taking x-ray photograph of a body part

Ans. _____

2. **Classify the following changes as periodic and non-periodic changes:**

Beating of human heart, flash floods, sunrise, change of seasons, happening of a train accident, arrival of a gale

Ans. _____

3. State whether burning of a piece of newspaper is a reversible or an irreversible change?

Ans. _____

4. Fruits decay after a certain period of time. Is it a desirable or undesirable change?

Ans. _____

5. What are desirable changes?

Ans. _____

6. Give two examples of periodic change.

Ans. _____

[B] Answer the following questions: [36]

1. Write two characteristics of physical change.

Ans.

2. Write two characteristics of chemical change.

3. Why burning of paper is a chemical change?

Ans.

4. Why tearing of paper is a physical change?

5. State two conditions required for rusting.

4. What is meant by burning?

Keywords: **[36]**

Desirable change:

Undesirable change:

Slow change:

Irreversible change:

Periodic change:

Physical change:

Chemical change:

Rusting:

Exercise: **[37-38]**

[A] Multiple Choice Questions: [37]

(i) In a change, energy is

(a) absorbed (b) evolved

(c) either absorbed or evolved (d) none of these

(ii) Changes involve

(a) an action (b) a recation

(c) interaction (d) none of these

(iii) An example of physical change is

(a) boiling of water (b) boiling of an egg

(c) burning of wood (d) making curd

(iv) Occurrence of a solar eclipse is a

(a) periodic change (b) non-periodic change

(c) chemical change (d) none of these

(v) Catching of common cold is a

(a) periodic change (b) non-periodic change

(c) chemical change (d) physical change

(vi) Arrival of a comet is

(a) periodic change (b) non-periodic change

(c) chemical change (d) physical change

[B] Fill in the blanks: [37]

1. Formation of day and night is a _____ change.
2. Bursting of a cracker is a _____ change.
3. The glowing of a tube-light is a _____ change.
4. Changes in which a new substance is formed are called_____.
5. Formation of rust on a bicycle rim is a _____ change.
6. Energy is _____ in the formation of curd from milk.

[C] Write T for true and F for false statements: [38]

1. Cooking of rice is a physical change. _____
2. Germination of seeds is a physical change. _____
3. Breaking of a china (porcelain) dish is a chemical change._____
4. Rusting of iron is an irreversible change. _____
5. Eruption of volcano is periodic change. _____
6. Formation of clouds is a fast change. _____

[D] Classify the following changes into reversible and irreversible changes: [38]

Melting of wax, Falling of rain, Pulling of rubber string, Tearing of a paper, Evaporation of water

_____

_____

_____

[E] Indicate whether each of the following changes is slow or fast; reversible or irreversible; desirable or undesirable; periodic or non-periodic and physical or chemical:

1. Different phases of moon

_____

2. Lightning in the sky

_____

3. Formation of biogas from cow dung

_____

4. Combustion of petrol in an automobile engine.

_____

5. Formation of manure from dry leaves in a pit.

_____

[F] Answer the following questions: [38]

1. Give two examples of changes in which energy is evolved.

Ans- _____

_____

_____

_____

_____

2. What type of change is involved in heating sugar?

Ans-

3. State five physical changes observed by you.

Ans-

4. Write important differences between physical and chemical changes.

Ans-

5. Give two examples of physical changes and two examplse of chemical changes.

Ans-

6. Changes involve energy. Explain it.

Ans-

7. Burning of a candle is considered as a physical as well as chemical change. Explain.

Ans-

8. What happens when water is added to quick lime? What kind of change is it?

Ans-

Chapter – 3
[Elements, Compounds and Mixtures]

Check Point: **[47]**

[A] Answer the following questions:

1. Define the following terms.

a. Element

b. Compound

c. Mixture

2. Classify the following under elements, compounds and mixtures.

a. Honey	d. Gun powder	g. Butter
b. Aluminium	e. Plaster of Paris	h. Common salt
c. Water	f. Milk	

Ans.

Classify the following as homogeneous and heterogeneous mixtures.

a. Iron + Sulphur:

b. Brass:

c. Sugar + Water:

d. Sand + Water:

e. Oil + Water:

f. Air:

g. Carbon dioxide + water:

A. Answer the following questions. [56]

1. Name the technique that you would use to separate the following mixtures.

   a. Iodine+ alcohol

   _____

   b. Mud + Water

   _____

   c. Oil + Water

   _____

2. State the principle underlying the following techniques:

   a. Fractional distillation:

   _____

   _____

   _____

   _____

   _____

   b. Use of separating funnel

   _____

   _____

   _____

   _____

   _____

   c. Filtration

   _____

   _____

   _____

   _____

   _____

   d. Sedimentation

   _____

   _____

   _____

   _____

   _____

3. How can we separate a mixture of two miscible liquids?

Ans. _____

_____

_____

_____

_____

_____

_____

_____

_____

_____

4. How can we separate a mixture of salt and ammonium chloride?

Ans. _____

5. Is the dye in black ink a single colour? Justify your answer.

Ans. _____

Keywords: **[56]**

Adsorption: _____

Compound: _____

Chromatography: _____

Homogenous mixture: _____

Element: _____

Heterogeneous mixture: _____

Mixture: _____

Sieving: _____

Symbol: _____

Sublimation: _____

Distillation: _____

Filtration: _____

Exercise: **[57-59]**

[A] Multiple Choice Questions: [57]

(i) The unit of element is

(a) atom (b) molecule

(c) atom and molecule (d) none of these

(ii) The formulae of sodium chloride is

(a) BaCl (b) NaCl

(c) $CaCl_2$ (d) $MgCl_2$

(iii) Which of the following is a mixture?

(a) water (b) air

(c) common salt (d) Plaster of Paris

(iv) Which of the following is compound?

(a) milk (b) butter

(c) syrup (d) water

(v) Which of the following is an example of homogeneous mixture?

(a) oil and water (b) saw dust and chalk

(c) water and milk (d) petrol and water

[B] Fill in the blanks: [58]

1. Symbol of an element denotes one _____ of that _____.
2. A mixture contains more than one _____ or _____ mixed in any proportion.
3. Properties of a compound are different from its constituent _____.
4. A _____ funnel is used to separate two immiscible substances.
5. A mixture of salt and ammonium chloride may be separated by _____.

[C] Match the column A with the column B: [58]

	Column A		Column B
1.	A molecule of an element	a.	milk
2.	A molecule of a compound	b.	chromatography
3.	A mixture	c.	camphor
4.	Separation of dyes in black ink	d.	nitrogen
5.	Sublimation	e.	air

[D] State whether the following statements are true or false: [58]

1. Air is a compound. _____
2. The separating funnel is used to separate mixture of chlorine and water. _____
3. The mixture of salt and ammonium chloride is separated by sublimation. _____
4. The mixture of carbon dioxide and water is a heterogeneous mixture. _____
5. The mixture of oil and water is homogeneous mixture. _____

[E] Define the following terms: [58]

1. Element:

_____

_____

2. Compound:

3. Mixture

4. Chromatography

5. Sublimation

[F] Answer the following questions: [58]

1. How will you show that properties of mixture are different from compounds?

Ans.

2. Differentiate between the following:

a. Element and compound :

b. Mixture and compound :

c. Homogeneous and heterogeneous mixture:

d. Distillation and fractional distillation:

e. Miscible and immiscible liquid:

3. State the principle underlying the following separation techniques:

a. Use of separating funnel :

b. Fractional distillation :

c. Evaporation :

4. How will you show the use of more than two techniques to separate a mixture of two or three components? Explain with an example. [59]

Ans.

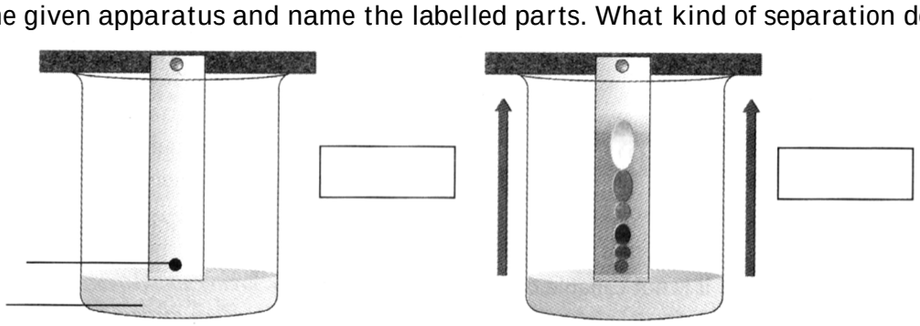
5. What is chromatography? State the principle and procedure of paper chromatography.

Ans.

6. How will you demonstrate that an ink is a mixture of different colours?

Ans.

7. Identify the given apparatus and name the labelled parts. What kind of separation does it show?



Ans.