## EAST POINT SCHOOL

# **CLASS X ASSIGNMENTS**

## **ENGLISH**

# A TIGER IN THE ZOO BY LESLIE NORRIS

## **About the Poet- Leslie Norris**

- Born on May 21, 1921in South Wales.
- He was a prize-winning Welsh poet and short story writer.
- He taught at academic institutions in Britain and United States, including Brigham Young University.
- Famous for his works 'Finding Gold' and 'Ransoms'
- He died on April 6, 2006.

# **About the Poem**

- The poet describes a tiger in a cage as well as in the forest.
- In the cage, it is in rage and walks over the pads of velvet.
- But in the forest, it looks natural and walks freely.
- It hides behind the bushes to catch its prey.
- In the forest, it terrorizes the villagers.
- But in the cage, it roars and growls.
- At last it hears the patrolling cars at night.
- It stares bright stars with brilliant eyes.

Message	Rhyme Scheme	Literary Devices
<ul> <li>The poet tries to expose the miserable life led by the animals in the zoo.</li> <li>The animals have the right to freedom and should not be caged. They should be allowed to run free in the wild.</li> </ul>	The poem is having rhyme scheme of ab cb	<ul> <li>Personification- tiger referred as 'he'</li> <li>Metaphor- pads of velvet</li> <li>Metonymy- strength behind the bars</li> </ul>

# **Extract Based Question (Solved)**

1."He stalks in his vivid stripes, The few steps of his cage, On pads of velvet quiet,

#### In his quiet rage.

- (a) Why the tiger could walk only a few steps?
- (b) How does the tiger move in the cage?
- (c) What are the two qualities of the animal under reference?
- (d) Why is he in quiet rage?

#### **Answers:**

- (a) The tiger could walk only a few steps because he was locked in a very small cage.
- (b) The tiger moves very slowly and quietly in a threatening way.
- (c) The tiger has vivid stripes on his body and soft velvet pads.
- (d) He is in quiet rage as he is locked and his freedom has been curtailed. Thus, he is unable to show his anger and ferocity.

# 2"He should be lurking in shadow,

Sliding through long grass,

Near the water hole.

# Where plump deer pass."

- (a) Who is 'He' here?
- (b) Where should he be lurking?
- (c) Where should he be sliding?
- (d) Who would pass through the water hole?

#### **Answer:**

- (a) 'He' refers to the tiger.
- (b) He should be lurking in the shadows in the forest.
- (c) The tiger should be sliding through the long grass in the forest.
- (d) A plump deer would pass through the water hole.

## **Extract Based Question (Unsolved)**

# 1."He should be snarling around houses At the jungle's edge,

Baring his white fangs, his claws,

## Terrorising the village!"

- (a) What does the poet try to suggest through these lines?
- (b) How does the tiger scare the people?
- (c) Why does 'he' snarl?
- (d) How does 'he' show his presence?
- 2."But he's locked in a concrete cell,

His strength behind bars,

Stalking the length of his cage,

## Ignoring visitors."

- (a) What does the phrase 'his strength behind the bar' suggests?
- (b) Why does the tiger ignore the visitors?
- (c) What is the tiger doing in the cage?
- (d) What does the expression 'stalking the length of the cage' imply?

# **Short Answer Type Questions (Solved)**

#### Q1How does a tiger create terror for the villagers?

- The tiger creates terror for the villagers by snarling around their houses
- The are situated near the jungle.

- He frightens them by showing his white fangs and claws.
- Q2. Why does the tiger express his rage quietly?
- The tiger expresses his rage quietly.
- There is nothing he can do from behind the bars of his cage.
- He is helpless as his strength now lies inside the cage.
- He is no longer free as he was in the jungle.

# **Short Answer Type Questions (Unsolved)**

- 1. Leslie Norris has described some of the activities of a tiger behind the bars of its cage. Write them.
- 2. Where should the tiger have been according to the poet?
- 3. How does the tiger make his presence felt in the village?
- 4. What does the tiger do in his cage?
- 5. Why should the tiger snarl around houses at the edge of the forest?'.

# **Long Answer Type Questions (Solved)**

## Q1. Love for freedom is the natural instinct of every living being. Comment.

- It is rightly said that love for freedom is the natural instinct of every living being.
- Everyone loves freedom and does not want to live in confinement.
- Similarly, the tiger also longed for freedom.
- He was so fed up being caged that he even ignored the visitors.
- He took to and fro steps in the cage as if trying to while away the time.
- The tiger wanted to escape this captivity.
- God has made all living beings equally and thus, the animals too have the right to freedom
- They should not be caged. It is their right to enjoy their natural habitat i.e. the forest and run freely in the wild.
- We should, thus, respect their freedom and should not put them in the zoo.

# **Long Answer Type Questions (Unsolved)**

- 1. Is it right to confine wild animals into cages? Why or why not?
- 2. Our mental condition depends on our surroundings and it can be changed according to it. Explain.
- 3. Why do you think the tiger looks at the stars?

# **GEOGRAPHY**

**Subject:- Social Science (Geography)** 

Class:- X

**Chapter 1:- Resources and Development** 

1) What is meant by the term "Resource"? Distinguish between Biotic and Abiotic Resources. [2012] (3)

2) Distinguish between the renewable and nonrenewable resources.
[2012]
3) Distinguish between Individual and Community owned resources.
[2012]
4) Distinguish between National and International resources.
[2012]
5) Distinguish between potential resource, stock and Reserve. Give
one example of each. [2012]
6) 'Indiscriminate use of resources had led to numerous problems.'
Justify this statement. [2014, 2012, 2011] (3)
7) What is Agenda 21? List its two principles. [2016-17] (3)
8) "In India, some regions are rich in certain types of resources but
deficient in some other resources". Do you agree with the
statement? Support your answer with any three examples. [2016-
17]
9) What are the three stages of resource planning in India? [2012,
2011]
10) Why is it essential to have resource planning? Explain any three
reasons. (3)
11) Define the following terms:
(i) Current fallow land
(ii) Other than current fallow
(iii)Cultivable waste land [2013]
12)State any three physical as well as three human factors which
determine the use of land in India. (3)
13) Explain the main causes for land degradation in India. [2015] (5)

14) Explain any five steps taken to solve the problem of	land
degradation in India.5	
15) Land is a natural resource of utmost importance. Justify	the the
statement with appropriate arguments. [2014]	(3)
16) Explain any three factors responsible for soil formation. [2	2011,
2012]	(3)
17) Why is soil considered as a resource? Explain with five argum	ents.
[2015]	(5)
18) Describe alluvial soil under the following heads:	(3)
(i) Formation, (ii) Distribution and (iii) Nutrients. [2013]	
OR	
What type of soil is found in the river deltas of the eastern coa	ast?
Give four main features of this type of soil.	(5)
19) How are alluvial soils formed? Distinguish between Khadar	and
Bangar soils? [2012, 2011]	(3)
20) Which soil type is made up of lava flows? [2014]	(1)
21) Which geographical factors are responsible for the evolution	on of
black soil? Why is it considered the most suitable for gro	wing
cotton? [2012]	(5)
OR	
Mention any five characteristics of "Regur" Soil. [2012, 2011]	(5)
22) Distinguish between red soil and laterite soil stating any	three
points of distinction. [2015]	(3)

23) Describe any five distinct characteristics of Arid so	oils'. [2014, 2015]
	(5)
24) Mention the various activities which are responsib	le for the process
of soil erosion. Explain the two types of soil erosion	n mostly observed
in India? [2015, 2012]	(3)
25) Which regions of India have well developed terrace	e farming? [2015]
	(1)
26) Define Soil erosion. Suggest any four methods of	soil conservation
suitable to Indian conditions. [2012]	(5)
<b>ECONOMICS</b>	
Subject:- Social Science (Economics) Chapter 1:- Development	Class:- X
27)What is Development? What are the two aspects o	f development?
[2015-16]	(3)
28) Why do different people have different developme	ntal goals? [2014,
2012, 2011]	(3)
29) Give some examples where factors other than inco	ome are important
aspects of our lives. [2016-17, 2014]	(3)
OR	
If you get a job in a far off place before accepting i	it, you would try
to consider many factors. Explain any five such i	factors. [2014,
2012]	
OR	
Give examples to prove that there are other impor	rtant
developmental goals than income. [2014, 2012]	

30) "Money in your pocket cannot buy all the goods and services	that
you may need to live well." Is it true or not? Elucidate. [2016	-17,
2012]	(3)
31) What is the most common indicator for measuring economic	
development of a country? [2014]	(1)
32) If there are 4 families in a country with per capita income of	
Rs.15000. The income of 3 families is Rs. 10,000, Rs. 20,000	and
Rs. 12,000. What is the income of the 4th family? [2014]	(1)
33) What is Per Capita Income? How is it calculated? Why is "Per	Capita
Income" not an adequate indicator of economic development	of a
country? Explain. [2014, 2013, 2012]	(5)
34) Why do you think average income is an important criterion f	or
development? Explain.	(3)
35) Besides size of per capita income, what other property of inc	ome is
important in comparing two or more societies? [2016-17, 20]	12] (3)
36) Write a paragraph on your notion of what should India do, or	
achieve, to become a developed country.	(5)
37) "What is the main criterion used by the World Bank in classif	ying
different countries? What are the limitations of this criterion	ı, if
any? [2016-17, 2014]	(5)
38) What is the criterion used by the UNDP for classifying countr	ies?
Explain	(3)
OR	
Explain the three components of Human Development Index. [20	)16-17,
2014, 2013, 2012 2011]	(3)
39) What is the full form of HDI? [2015-16]	(1)

40) What is India's HDI rank in the world?

**(1)** 

41) Differentiate between human development and economic

development. (3)

42) What is sustainable development? Why is the issue of sustainability

important for development? [2016-17, 2015-16, 2013, 2012,

2011]

"The Earth has enough resources to meet the needs of all but not enough to satisfy the greed of even one person." How is this statement relevant to the discussion of development? Discuss. [2014, 2012]

## POLITICAL SCIENCE

Ch-02 Federalism

- Q.1How many scheduled languages are recognized by the constitution?
- a) Besides Hindus, there are 18 scheduled, languages.
- b) Besides Hindi, there are 21 scheduled languages.
- c) Besides Hindi there are 22 scheduled languages.
- d) Besides Hindi there are 19 scheduled languages

Ans.b) Besides Hindi, there are 21 scheduled languages.

- Q.2 What is the government at Block level called?
- a) Gram Sabha b) Gram Panchyat c) Panchayat Samiti d) Nayay Panchyat

Ans.c) Panchayat Samiti

- Q.3 Which local govt works at district level?
- a) Panchayat samiti b) Village panchayat c) Zila Parishad d) None of the mention a

Ans.c) Zila Parishad

- Q.4 By what name local govt at urban area called?
- A) Municipality B) Municipal corporation C) Panchayat samiti
- a) Only A is true b) Only B is true c) Both B and C are true d) Both A and B are true

Ans.d) Both A and B are true

- Q.5 Who is the chairperson of Municipal Corporation?
- a) Block development officer b) Mayor c) Sarpanch

**Short Answers Questions** 

- Q.1 What is the real reason for the successes of federalism in India?
- Ans- 1). The constitutional provisions are laid out very clearly
- 2) The nature of democratic politics has ensure its success
- 3) There is respect for diversity
- Q.2 what are the objectives of the federal system?

Ans- Federal system has dual objectives to safeguard and promote unity of the country and accommodate

regional diversity. It is based on mutual trust and agreement to live together.

Q.3 What happened to the centre state relations when different parties ruled at the centre and state levels till 1990?

Ans- When different parties ruled at the centre and state levels the parties at the centre tried to undermine

the power of states. The central government misused the constitution often to dismiss the state governments

that were controlled by other parties. This is against the spirit of federalism

**Long Answers Questions** 

- Q.1 Give the key features of federalism
- Ans- 1. There is two or more level of govt
- 2. Each tier has its own jurisdiction
- 3. Any change in the fundamental provisions of the constitution requires consent of both levels of the govt
- Q.2 What major steps taken in 1992 towards decentralization?

Ans- A three tier democracies were introduced in 1992.

A step was taken towards creating rural local self govt.

- 1) Regular elections to be held for panchayat
- 2) Seats reserved for SC's and STs OBCs
- 3) One third seats reserved for women
- 4) State govt to share power and revenue with local bodies.

Extra questions

Q.1 Why do some states enjoy special powers in India? Which are they?

- Q.2 What type of federation does India have? How it is different from that of USA?
- Q.3 How legislative powers being distributed among three tiers of the govt by the constitution?
- Q.4 Distinguish between unitary and federal government.

## **CHEMISTRY**

# Acids, Bases and Salts

The taste of the food is due to presence of acids and bases in them.

#### Acids

- Acids is defined as the one which produces hydrogen ions in water. For Example, Sulphuric Acid, Hydrochloric Acid etc.
- They give sour taste.
- Acids turn blue litmus to red. This is used as confirmation test for the presence of acid.
- When acids react with metals, gases are evolved.

#### Reactions with Acids

1. Reaction of Acid with Metal

Acid + Metal 
$$\rightarrow$$
 Salt + Hydrogen gas   
Mg + H<sub>2</sub> SO<sub>4</sub>  $\rightarrow$  H<sub>2</sub> + MgSO<sub>4</sub>

2. Reaction of Acid with Carbonates

$$Na_2 CO_3$$
 (s) + 2 HCl (aq)  $\rightarrow$  2NaCl (aq) +  $H_2O$ (1) +  $CO_2$ (g)

3. Reaction of Acid with Bicarbonates

$$NaHCO_3$$
 (s) +  $HCl$  (aq)  $\rightarrow$   $NaCl$  (aq) +  $H_2O$  (l) +  $CO_2$  (g)

## Similarity between Acids and Bases

- Both acids and base react with water. They produce ions in water
- Both acids and bases acts as electrolytes, so are good conductors of electricity.
- Both of them changes the colour of the litmus paper.

#### **Classification of Acids**

Acids are classified as **Organic Acids and Mineral Acids**. Acids which are derived from plants and animals, they are known as **Organic Acids**. **For Example**, Citric Acid from fruit. Mineral acids are inorganic acids such as **Sulphuric Acid**. They are dangerous to be used, so need more precautions.

Acids are also classified as **Strong Acids or Weak Acids**. Strong acid is an acid, that completely dissociates into ions in aqueous solutions. **For Example**, Sulphuric Acid, Hydrochloric Acid.

$$\frac{HCl}{acid} + H_2O = H_3O^+ + Cl^-$$

Weak acid is the one which does not dissociate completely into ions in aqueous solutions. For Example, Acetic Acid.

$$CH_3COOH + H_2O \rightleftharpoons CH_3COO^- + H^+$$

Acids can also be as **Dilute Acid and Concentrated Acids**. The one which has low concentration of acids in aqueous solution, they are known as **Dilute Acids** whereas the one which has high concentration of acids in aqueous solution, are known as **Concentrated Acids**.

It is advisable to add acid to water and not vice versa because large amount of heat is released if water is added to acid. This released heat is large enough to cause harm.

#### Bases

- Bases are the one which produces hydroxide ions in aqueous solutions. Bases which are water soluble they are known as Alkalis.
- They turn red litmus to blue.
- They have a bitter taste.
- They also produced carbon-dioxide when reacted with carbonates.
- They also evolved hydrogen gas when bases react with metals.

#### Reactions of Bases

#### 1. Reaction with Metals

Base reacts with metals and produce hydrogen gas.

$$2NaOH + Zn \rightarrow Na_2 \rightarrow Na_2ZnO_2 + H_2$$

#### 2. Reaction with Acids

Base reacts with acids to form salts. For Example,

$$KOH + HC1 \rightarrow KC1 + H_2O$$

#### 3. Reaction with Non-metallic Oxides

Base reacts with non-metallic oxides to form salt and water.

$$\textbf{2NaOH} \ \textbf{+} \ \textbf{CO}_2 \ \rightarrow \ \textbf{CO}_2 \ \rightarrow \ \textbf{Na}_2\textbf{CO}_3 \ \textbf{+} \ \textbf{H}_2\textbf{O}$$

#### Classification of Bases

Bases are classified as **Strong Base** and **Weak Base**. Strong base is the one which dissociates completely into its ions in aqueous solution. **For Example**, **NaOH**.

Weak base is the one which does not dissociate completely into its ions in aqueous solutions. For Example, Ammonium Hydroxide, NH<sub>4</sub>OH

Bases are also classified as **Dilute Base** and **Concentrated Base**. The solution which has low concentration of base in aqueous solution is defined as **Dilute Base** whereas the one which has high concentration of base in aqueous solution is known as **Concentrated Base**.

# Strength of Acid or Base Solutions

The dissociation of weak acid or weak base can be represented as-

$$CH_3COOH + H_2O \rightleftharpoons CH_2COO^- + H_3O^+$$

$$NH_3 + H_2O \rightleftharpoons NH_4 + (aq) + OH^-(aq)$$

Strength of an acid or base can be determined using a pH scale. It is a scale to measure the hydrogen ion concentration in a solution. The p stands for 'potenz', it is a German word which means power.

- If pH is equal to 7, means the solution is neutral.
- If pH is greater then 7 means alkaline solution.
- If pH is less then 7 means the solution is acidic.

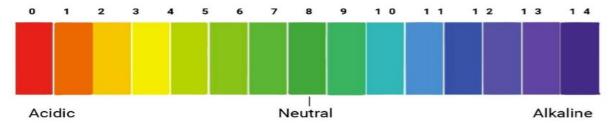


Fig.1. pH scale

# Importance of pH

- Human body works at a pH of about 7.4.
- Stomach has a pH of about 2 due to presence of hydrochloric acid in it. It is needed for the activation of pepsin protein required for protein digestion.
- When we eat food containing sugar, then the bacteria present in our mouth break down the sugar to form acids. This acid lowers the pH in the mouth. Tooth decay starts when the pH of acid formed in the mouth falls below 5.5. This is because then the acid becomes strong enough to attack the enamel of our teeth and corrode it. This sets in tooth decay. The best way to prevent tooth decay is to clean the mouth thoroughly after eating food.
- Many animals and plants protect themselves from enemies by injecting painful and irritating acids and bases into their skin.
  - When honey bee stings a person, it injects an acidic liquid into the skin. Rubbing with mild base like baking soda solution on the stung area of the skin gives relief.
  - When a wasp stings, it injects an alkaline liquid into the skin. Then rubbing with a mild acid like vinegar on the stung area of the skin gives relief.
- Soil pH and plant growth: Most of the plants grow best when the pH of the soil is close to 7. If
  the soil is too acidic or basic, the plants grow badly or do not grow at all. The soil pH is also
  affected by the use of chemical fertilisers in the field. Chemicals can be added to soil to adjust
  its pH and make it suitable for growing plants. If the soil is too acidic then it is treated with

materials like quicklime or slaked lime. If the soil is too alkaline then alkalinity can be reduced by adding decaying organic matter.

#### Salts

When acid and base neutralize, salts are formed. Strong acid and strong base combines to form neutral salt.

$$\label{eq:NaOH} \textbf{NaOH + HCl} \ \rightarrow \ \textbf{NaCl + H}_2\textbf{O}$$
   
 Eq.1. Formation of Neutral Salt

Strong acid and weak base combine to form acidic salt. **For Example**, Hydrochloric Acid and ammonium hydroxide combine to form ammonium chloride. Other examples, sodium hydrogen carbonate, sodium hydrogen sulphate etc.

$$\label{eq:hcl} \begin{array}{lll} HCl \ + \ NH_4OH \ \rightarrow \ NH_4Cl \ + \ H_2O \\ \\ Eq. 2. \ Formation \ of \ Acidic \ Salt \end{array}$$

Similarly, weak acid and strong base combine to form basic salt. **For Example**, Acetic Acid and sodium hydroxide combine to form sodium acetate. Other examples are calcium carbonate, potassium cyanide etc.

$$CH_3COOH + NaOH \rightarrow CH_3COONa + H_2O$$
  
Eq.3. Formation of Basic Salt

The most common salt is table salt or sodium chloride (NaCl).

#### Indicators

They are the substances that which indicate acidic or basic nature of the solution using colour change. **For Example**, litmus solution, methyl orange, phenolphthalein, methyl red etc. Acids convert blue litmus paper red in colour. Bases turn red litmus blue. Phenolphthalein remains colourless in presence of acids but turn pink in presence of bases.

#### Some Important Chemical Compounds and their uses

Done In	por carre chemicar compounds as	d diell abeb
	Preparation	Uses
Common Salt (NaCl) (Sodium Chloride)	<ol> <li>NaOH + HCl → NaCl + H<sub>2</sub>O</li> <li>From sea water by evaporation</li> <li>From underground deposit</li> <li>Large crystals of common salt found in underground deposit which is brown due to presence of impurities in it.</li> <li>It is mined from underground deposit like coal.}</li> </ol>	<ol> <li>Raw material for making large number of useful chemicals in industry. Eg: NaOH (caustic soda), Na<sub>2</sub>CO<sub>3</sub> (washing soda), NaHCO<sub>3</sub> (baking soda).</li> <li>Preservative in pickle and curing meat and fish.</li> <li>To melt ice and clear roads in winters in cold countries.</li> <li>Used in manufacturing of soap.</li> </ol>
Caustic Soda (NaOH) (Sodium Hydroxide)	Passing electricity through concentrated solution of NaCl (called 'brine')	Uses of H <sub>2</sub> 1. Hydrogenation of oil to get vegetable ghee (margarine)

	2NaCl (Brine) + 2H <sub>2</sub> O2NaOH (Content At anode (+ve electrode): Cl <sub>2</sub> is particular (-ve electrode): H <sub>2</sub> is particular (Chloro) and NaOH (Chloro) and NaOH (Chloro) and NaOH (Chloro) and NaOH (Chloro) (	roduced produced pecause products formed	<ol> <li>To make ammonia for fertilizers</li> <li>In fuel for rockets.</li> <li>Uses of Cl₂</li> <li>In water treatment</li> <li>To clean water in swimming pools</li> <li>To make plastic, e.g. PVC</li> <li>To make CFCs, chloroform, dyes etc.</li> <li>Uses of NaOH</li> <li>Used in making soap and detergent.</li> <li>Used in manufacturing of paper</li> <li>De-greasing metals</li> <li>Refining oil</li> <li>Making dyes and bleaches</li> <li>Uses of HCl</li> <li>Cleaning steel</li> <li>Preparation of chloride, e.g. NH₄Cl</li> <li>In making medicines and cosmetics</li> <li>In making plastics, PVC etc.</li> </ol>
Baking Soda (NaHCO <sub>3</sub> ) (Sodium Hydrogencarbonate)	NaCl + NH <sub>3</sub> + H <sub>2</sub> O + CO <sub>2</sub> $\rightarrow$ NaFeroperties  Action of Heat:  2NaHCO <sub>3</sub> heat  Na <sub>2</sub> CO <sub>3</sub> + O		<ol> <li>Used as antacid in medicine to remove acidity of the stomach</li> <li>Used in making baking powder (Basic soda + tartaric acid)</li> <li>NaHCO₃ + H⊕ (from mild acid) →</li> <li>Na⊕ (sodium salt of acid) + CO₂ + H₂O</li> <li>The CO₂ produced during the process gets trapped in wet dough and bubbles out slowly to make cake 'rise' so that it becomes soft and spongy.</li> <li>Tartaric acid neutralizes it, and so it has pleasant taste.</li> <li>Used in soda-acid fire extinguisher</li> </ol>
Washing Soda (Na <sub>2</sub> CO <sub>3</sub> .10H <sub>2</sub> O) (Sodium Carbonate)	$Na_2CO_3 + 10 H_2O \rightarrow Na_2CO_3.10 H_2O$ Preparation of $Na_2CO_3$ $\{NaCl + NH_3 + H_2O + CO_2 NaH_2O_3 \rightarrow Na_2CO_3 + CO_2 + H_2O_3 \}$	$(CO_3 + NH_4CI)$	<ol> <li>Used in glass, soap and paper industries</li> <li>Used in manufacturing of sodium compounds such as Borax</li> </ol>

Bleaching Powder (CaOCl <sub>2</sub> ) Calcium Oxychloride	$Ca(OH)_2 + Cl_2 \rightarrow CaOCl_2 + H_2O$ Slaked Lime Calcium Oxychloride  Properties $CaOCl_2 + H_2SO_4 \rightarrow CaSO_4 + Cl_2 + H_2O$ The $Cl_2$ produced by action of dilute acid acts as bleaching agent.	<ol> <li>Cleaning agent for domestic purpose</li> <li>Remove permanent hardness of water</li> <li>For bleaching cotton and linen in textile industry, for bleaching wood pulp in paper factories, for bleaching washed clothes in laundry</li> <li>Oxidizing agent in chemical industries</li> <li>Disinfecting drinking water</li> </ol>
Plaster of Paris (P.O.P) (CaSO <sub>4</sub> .1/2 H <sub>2</sub> O) (Calcium Sulphate Hemihydrate)	CaSO <sub>4</sub> . 2H <sub>2</sub> O(Gypsum)  CaSO <sub>4</sub> .H <sub>2</sub> O (Plaster of Paris) +3/2 H <sub>2</sub> O  * Heating of gypsum should not be done above 100°C as above that temperature, water of crystallization will eliminate and anhydrous CaSO <sub>4</sub> will be obtained. This anhydrous CaSO <sub>4</sub> is known as <b>Dead Burnt Plaster</b> .  * CaSO <sub>4</sub> .1/2 H <sub>2</sub> O means that two molecules of CaSO <sub>4</sub> share one molecule of water.  Properties  Has remarkable property of setting into a hard mass on wetting with water, as gypsum is formed.  CaSO <sub>4</sub> .1/2 H <sub>2</sub> O (P.O.P) + 1/2 H <sub>2</sub> O → CaSO <sub>4</sub> .2H <sub>2</sub> O (Gypsum set as hard mass)  Hence, P.O.P should be stored in moisture-proof container as moisture can cause slow setting of P.O.P by hydrating it.	<ol> <li>Used in hospital for setting fractured bones in the right position to ensure correct healing.</li> <li>Making toys, decorative materials, cheap ornaments, and casts of statues.</li> <li>Used as fire-proofing material</li> <li>Used in chemistry labs for setting air gaps in apparatus.</li> <li>Making smooth surfaces, such as For making ornamental designs on ceilings of houses and other buildings</li> </ol>

# ACIDS BASES AND SALTS Level 1

# I.Multiple choice questions:

- 1. When acid reacts with metal carbonate, products are
- a) salt
- b) water
- c) carbon dioxide
- d)all of above
- 2. Phenolphthalein in acidic solution is
- a) colorless
- b) pink colored
- c) yellow colored

- d) orange colored
- 3. Process in which acids (H<sup>+</sup>) and bases (OH<sup>-</sup>) react to form salts and water is called
- a)neutralization
- b)hydrogenation
- c)halogenation
- d)sublimation
- 4. If pH value is greater than 7, then solution is
- a)acidic
- b)basic
- c)neutral
- d)salty
- 5. When a solution of an acid contains larger amount of acid, it is said to be-
- (a) Dilute
- (b) concentrated
- (c) Monobasic
- (d) polybasic
- 6. Metals like sodium, potassium and calcium react with an acid to liberate-
- (a) CO<sub>2</sub>
- (b) NH<sub>3</sub>
- $(c)O_2$
- (d)H<sub>2</sub>
- **7.**Which of the following is a weak acid?
- (a) sulphuric acid
- (b) hydrochloric acid
- (c) acetic acid
- (d) nitric acid
- 8. The chemical formula of baking soda is
- (a)Na<sub>2</sub>Co<sub>3</sub>
- (b) Na<sub>2</sub>Co<sub>3</sub>.10H<sub>2</sub>O
- (c) NaHCO<sub>3</sub>
- (d) NaOH
- 9. Which of the following phenomena occur, when a small amount of acid is added to water?
- (a) ionization
- (b) Neutralization
- (c) Dilution
- (d) Salt formation
- 10. Salt form during reaction of sulphuric acid with copper
- (a)Na<sub>2</sub>SO<sub>4</sub>
- (b) CuSO<sub>4</sub>
- (c) K<sub>2</sub>SO<sub>4</sub>
- (d) NH<sub>4</sub>CI

- 11. To protect tooth decay we are advised to brush our teeth regularly. The nature of the tooth paste commonly used is
- (a) acidic
- (b) neutral
- (c) basic
- (d) corrosive
- 12. The acid present in vinegar
- (a)citric acid
- (b) tartaric acid
- (c) ascorbic acid
- (d) acetic acid
- 13. The example of olfactory indicators is
- (a) Methyl orange
- (b) onion
- (c) blue litmus
- (d) phenolphthalein

#### **VERY SHORT ANSWER TYPE QUESTIONS:**

- 1. Write the neutralization reaction of acids?
- 2. Write the name of the products obtained when zinc metal pieces are dropped into sodium hydroxide bottle.
- 3. Write an equation for the action of dilute hydrochloric acid on marble chips.
- 4. Write the chemical name and formula of washing soda?
- **5.** Name the raw materials required to manufacture bleaching powder.
- 6. Write the chemical formula of plaster of paris and gypsum?
- 7. What happen when excess of CO<sub>2</sub> passes from lime water?
- 8. Why does dry HCl gas not change the colour of the dry litmus paper?
- 9. What effect does the concentration of H+ (aq) have on acidic nature of the solution?
- 10. Write the reaction between dilute NaOH solution and dilute HCl acid.
- 11. Why does an aqueous solution of an acid conduct electricity?
- 12. What is chloro- alkali process?

#### **SHORT ANSWER TYPE QUESTIONS:**

- 1. 2 ml of NaOH solution is added to a few pieces of granulated Zn metalin a test tube. When the content is heated, a gas evolves which is passed through soap water before testing. Write the equation of the chemical reaction involved and test to detect the gas. Name the gas which will be evolved when the same metal reacts with dilute solution of a strong acid.
- 2. The pH of the salt used to make tasty pakora is 8. Identify the salt and write a chemical equation for its formation. List its two uses.
- 3. Salt P, commonly used in bakery products, on heating gets converted into salt Q, which itself is used for removal of hardness of water and a gas R. the gas when passed through freshly prepared limewater turns milky. Identify P,Q and R. give the chemical equations for justification of your answer.

- 4. Write the main difference between acid and base. With the help of suitable examples, explain the term neutralisation reaction.
- 5. Explain with an example the formation of following:
  - i) Acidic salts
  - ii) Basic salts
  - iii) Neutral salts.
- 6. Identify the acid and base which is used in the formation of sodium hydrogen carbonate. Write the chemical equation in support of your answer. State whether this compound is acidic, basic or neutral. Also write its pH value.
- 7. 1 g of solid NaCl is taken in a clean and dry test tube. 2 ml of concentrated  $H_2SO_4$  is added to it. If the gas evolved is tested with dry and wet blue litmus paper, in which case will the litmus paper change colour? Give reason. Write the chemical equation involved.
- 8. A) for the preparation of cake, baking powder is used. If at home your mother used baking soda instead of baking powder, how will it affect the taste of cake and why?
  - b) How is baking soda converted into baking powder?
- 9. How is plaster of Paris obtained? What reaction is involved in the setting of a paste of plaster of Paris?
- 10. a) Why does acidic solution conduct electricity?
  - (b)Can basic solution conduct electricity?
  - (c)Can separation of H+ ions in acids take place when HCI is added to a non-aqueous solution?

#### Level 2

#### I.Multiple choice questions:

- **1.** When acid reacts with metal carbonate, products are
- a) salt
- b) water
- c) carbon dioxide
- d)all of above
- 2. Phenolphthalein in acidic solution is
- a) colorless
- b) pink colored
- c) yellow colored
- d) orange colored
- 3. Process in which acids  $(H^+)$  and bases  $(OH^-)$  react to form salts and water is called a)neutralization
- b)hydrogenation

c)halogenation d)sublimation 4. If pH value is greater than 7, then solution is a)acidic b)basic c)neutral d)salty 5. When a solution of an acid contains larger amount of acid, it is said to be-(a) Dilute (b) concentrated (c) Monobasic (d) polybasic 6. Metals like sodium, potassium and calcium react with an acid to liberate-(a) CO<sub>2</sub> (b) NH<sub>3</sub>  $(c)O_2$ (d)H<sub>2</sub>**7.**Which of the following is a weak acid? (a) sulphuric acid (b) hydrochloric acid (c) acetic acid (d) nitric acid 8. The chemical formula of baking soda is (a)Na<sub>2</sub>CO<sub>3</sub>(b) Na<sub>2</sub>CO<sub>3</sub>.10H<sub>2</sub>O (c) NaHCO<sub>3</sub> (d) NaOH 9. Which of the following phenomena occur, when a small amount of acid is added to water? (a) ionization (b) Neutralization (c) Dilution (d) Salt formation 10. Salt form during reaction of sulphuric acid with copper (a)Na<sub>2</sub>SO<sub>4</sub>

## **VERY SHORT ANSWER TYPE QUESTIONS:**

(b) CuSO<sub>4</sub> (c) K<sub>2</sub>SO<sub>4</sub> (d) NH<sub>4</sub>CI

- 1. What happen when excess of CO<sub>2</sub> passes from lime water?
- 2. Why does dry HCl gas not change the colour of the dry litmus paper?
- **3.** What effect does the concentration of H+ (aq) have on acidic nature of the solution?
- 4. Write the reaction between dilute NaOH solution and dilute HCl acid.

- 5. Why does an aqueous solution of an acid conduct electricity?
- 6. What is chloro- alkali process?

#### Short answer type questions:

- 1. How is plaster of Paris obtained? What reaction is involved in the setting of a paste of plaster of Paris?
- 2. a) Why does acidic solution conduct electricity?
  - (b)Can basic solution conduct electricity?
  - (c)Can separation of H+ ions in acids take place when HCl is added to a non-aqueous solution?
- **3.** Write the main difference between acid and base. With the help of suitable examples, explain the term neutralisation reaction.
- **4.** 2 ml of NaOH solution is added to a few pieces of granulated Zn metalin a test tube. When the content is heated, a gas evolves which is passed through soap water before testing. Write the equation of the chemical reaction involved and test to detect the gas. Name the gas which will be evolved when the same metal reacts with dilute solution of a strong acid.
- **5.** The pH of the salt used to make tasty pakora is 8. Identify the salt and write a chemical equation for its formation. List its two uses.

# BIOLOGY Chapter 6

# Respiration and transportation

# Do this assignment on any fair separate sheets taking help from content provided. Use NCERT as well.

- 1. Which of the following statement(s) is (are) true about respiration?
- (i) During inhalation, ribs move inward and diaphragm is raised
- (ii) In the alveoli, exchange of gases takes place i.e., oxygen from alveolar air diffuses into blood and carbon dioxide from blood into alveolar air
- (iii) Haemoglobin has greater affinity for carbon dioxide than oxygen
- (iv) Alveoli increase surface area for exchange of gases
  - (a) (i) and (iv)
  - (b) (ii) and (iii)
  - (c) (i) and (iii)

# (d) (ii) and (iv)

- 2. Which is the correct sequence of air passage during inhalation?
- (a) Nostrils  $\rightarrow$  larynx  $\rightarrow$  pharynx  $\rightarrow$  trachea  $\rightarrow$  lungs
- (b) Nasal passage  $\rightarrow$  trachea  $\rightarrow$  pharynx  $\rightarrow$  larynx  $\rightarrow$  alveoli
- (c)  $larynx \rightarrow nostrils \rightarrow pharynx \rightarrow lungs$
- (d) Nostrils  $\rightarrow$  pharynx  $\rightarrow$  larynx  $\rightarrow$  trachea  $\rightarrow$  alveoli
- 3. During respiration exchange of gases take place in
- (a) trachea and larynx
- (b) alveoli of lungs
- (c) alveoli and throat
- (d) throat and larynx
- 4. How is 'respiration' different from 'breathing'? Explain the process of aerobic and anaerobic respiration.
- 5. I) Name the blood vessel that brings oxygenated blood to the human heart.
  - II) Which chamber of the heart received oxygenated blood?
- III) Explain how is the oxygenated blood from this particular chamber sent to all the body parts?
- 6. Explain the schematic representation of gaseous exchange in tissues.
- 7. Compare the functioning of alveoli in the lungs and nephrons in the kidneys with respect to their structures and functioning?
- 8. How are the thin walls of alveoli beneficial?

9.	Trace the path of deoxygenated blood flowing from the body towards heart
an	d oxygenated back to the body. Make a flow chart including all vessels and
pai	rt of heart through which blood pass.

- 10. What is the advantage if a four chambered heart?
- 11. Explain the process by which inhalation occurs during breathing in human beings?
- 12 Why is the rate of breathing in aquatic organisms much faster than in terrestrial organisms?
- 13. Why is blood circulation in human heart called double circulation?
- 14. What is the advantage of having four chambered heart?
- 15. Draw well labelled diagrams of human heart and human respiratory system.

# **HINDI**

औपचारिक पत्र
1. विद्यालय की विज्ञान-प्रयोगशाला को अत्याधुनिक बनाने की आवश्यकता समझाते हुए अपने विद्यालय के
प्रधानाचार्य महोदय को पत्र लिखिए।
सेवा में
प्रधानाचार्य
नवीन पब्लिक स्कूल
हरिनगर, नई दिल्ली
विषय: स्कूल की विज्ञान प्रयोगशाला को अत्याधुनिक बनाना
महोदय निवंदन हैं कि हमारे स्कूल की विज्ञान प्रयोगशाला में कई वर्षों से आधुनिक उपकरण तथा आवश्यक सामग्री की खरीद नहीं
च्या प्रतिक बनाने की तरत आवश्यकती है। पाठ्यक्रम में मा जान है है है।
गए हैं, जिन्हें इस प्रयोगशाला में नहीं किया जो सकती। हमार विज्ञान रिराविक कर विज्ञान रिराविक कर विज्ञान रिराविक आपसे विनम्र प्रार्थना है कि इस प्रयोगशाला के लिए उन्नत किस्म के उपकरण खरीदे जाएँ तथा इसका नवीनीकरण करके
इसे अत्याधुनिक बनाया जाए।
आपकी अति कृपा होगी।
आपका आज्ञाकारी शिष्य
महेश गिरि
दसवीं-बी (हैड बॉय)
दिनांक
पत्र लिखिए।
सेवा में
विद्युत अधिकारी
यमुना पॉवर लिमिंटेड
नई दिल्ली
विषय-रघुबीर नगर में प्रकाश व्यवस्था की कमी
विषय-रधुबार नगर न प्रचलर प्राप्त ।
महोदय महोदय निवंदन है कि रघुबीर नगर के जे और के ब्लॉक में प्रकाश की उचित व्यवस्था नहीं है। यहाँ की अधिकांश सड़कें रात्रि
निवंदन है कि रघुबीर नगर के जे और के ब्लॉक में प्रकाश को उचित व्यवस्था नहीं है। प्रतीत होता है कि सारी प्रकाश व्यवस्था चरमरा गई वि अंधकार में डूबी रहती हैं। घरों में भी बिजली आती-जाती रहती है। प्रतीत होता है कि सारी प्रकाश व्यवस्था चरमरा गई व
अंधकार में डूबी रहती हैं। घरों में भी बिजली आती-जाती रहती है। प्रतीत होती है कि स्ति प्रसामाजिक तत्व सिंह आपसे विनम्र प्रार्थना है कि इन मुहल्लों की प्रकाश व्यवस्था को दुरुस्त किया जाए। इसके अभाव में असामाजिक तत्व सिंह
े जारी है कि देन महिला की अनेतर के जिल्ला के ज
श्रापस विनम्र प्राथना है । अप इस दिशा में उचित कदम उठाएँगे।
सधन्यवाद
भवदीय
रजनीश वर्मा संयोजक रघुवीर नगर निवासी संघ, नई दिल्ली
संयाजक, रघुवार नगर गणाला राज, र

(140)

दिनांक .....

उत्तर मीराबाई ने श्रीकृष्ण के रूप-सौन्दर्य का अत्यंत मोहक वर्णन किया है प्रस्न 3 मीरा कहाँ रहना चाहती है तथा वहाँ वह क्या-क्या काम करना चाहती धारण करते हैं। उनके गले मे वैजयंती माला होती हैं। कृष्ण बाँसुरी बजाते मीरा वृदावन में श्रीकृष्ण के निकट ऊँचा महल बनाकर तथा उसमें खिड़िक्यों कवयित्री मीराबाई अपने स्वामी श्रीकृष्ण से जन की पीड़ा को हरने की प्रार्थना प्रज 1 मीराबाई ने श्रीकृष्ण के रूप-सौन्दर्य का वर्णन कैसे किया है? उनके द्वारा रचित पदों में कृष्ण के प्रति प्रेम व भक्ति झलकती है। प्रज्न 2 मीरा स्वयं को क्या बताती है और क्या चाहती है? 2 मीराबाई प्याम की नौकरी क्यों करना चाहती है? प्रस्न 1 मीराबाई किससे और क्या प्रार्थना कर रही हैं? मीराबाई स्वयं को गिरिधर की दास बताती हैं। मीरा श्रीकृष्ण की परम भक्त थी। एक अंक वाले प्रज-पाठ - 2 मीरा के पद धरयो – धारण करना भीर – कष्ट, पीड़ा वैर – वस्त्र बूढ़तो – डूबते हुए म्हारी – मेरी कुंज – संकीर्ण सीहे – शोभा देना दो अंक वाले प्रष्म महत्वपूर्ण बिन्दु :-किटिन – शब्दार्थ वाकर - नौकर तीरां – किनारा हेवड़ो – हृदय घणों – घना

पाँच अंक वाले प्रष्न—
प्रष्न 1 मीराबाई श्रीकृष्ण को पाने के लिए क्या—क्या करने को तैयार हैं?
उत्तर वह उनकी चाकरी करने को तैयार हैं।
वह वृदांवन की कुंज गलियों में कृष्ण—लीला का गान करने को तैयार हैं।
वह कृष्ण के लिए बाग लगाने को तैयार हैं।
वह उनके लिए ऊँचा महल बनाने को तैयार हैं।
वह उनके दर्शन पाने के लिए कुसुम्बी रंग की साड़ी पहनने को तैयार है।
वह आधी रात को यमुना नदी के तट पर जाने को तैयार है।

पाँच अंक वाले प्रम—
प्रम्न 1 मीराबाई श्रीकृष्ण को पाने के लिए क्या—क्या करने को तैयार हैं?
उत्तर वह उनकी चाकरी करने को तैयार हैं।
वह वृदांवन की कुंज गलियों में कृष्ण—लीला का गान करने को तैयार हैं।
वह कृष्ण के लिए बाग लगाने को तैयार हैं।
वह उनके दिश्न बाग लगाने को तैयार हैं।
वह उनके दर्शन पाने के लिए कुसुम्बी रंग की साढ़ी पहनने को तैयार है।
वह अप्रधी शत को यमुना नदी के तट पर जाने को तैयार है।
2 हिरे आप हरो पद में मीरा ने हिरे से अपनी पीड़ा हरने की विनर पाठ —3
पर्वत प्रदेश में पावसः सुमित्रानंदन पंत
कित — शब्दार्थ
पावस — वर्ष
मेखलाकार — करधनी के आकार का
सहस्त्र — हजारों
दुग — नेत्र
सुमन — फूल

पर्वतीय क्षेत्र की वर्षा ऋतु का मोहक वर्णन है।

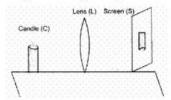
महत्वपूर्ण बिन्दु

तताँरा - वामीरो कथा आदिम - प्रारंमिक लेखक - लीलाधर मंडलोई विभक्त – बँटा हुआ विलक्षण - असाधारण कठिन शब्दार्थ चैतन्य - चेतना श्रृंखला - कम कड़ी असंगत - अनुचित अन्यमनस्कता – जिसका चित्त कहीं ओर हो निष्चल - स्थिर रोमांचित - पुलिकत शमन - शांत करना तंद्रा - एकाग्रता मुख्य पात्र – तताँरा – युवक वामीरो - युवती प्रेमकथा लोक कथा दंतकथा

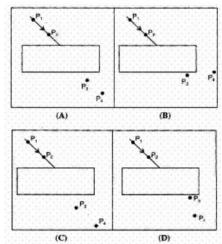
# **PHYSICS**

#### **Chapter 10 Light Reflection and Refraction**

1. A student performs an experiment on finding the focal length of a convex lens by keeping a lighted candle on one end of laboratory table, a screen on its other end and the lens between them as shown in the figure. The positions of the three are adjusted to get a sharp image of the candle flame on the screen. If now the candle flame were to the replaced by a distant lamp on a far away electric pole, the student would be able to get a sharp image of this distant lamp on the screen by moving (1)



- a. the screen in the direction of the lens or the lens away from the screen
- b. neither the screen nor the lens
- c. the screen in the direction of the lens or the lens in the direction of the screen
- d. the screen away fro the lens or the lens in the direction of the screen
- 2. Four students set up the glass slab experiment as shown below:



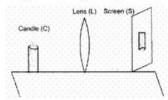
The correct fixing of the pins  $P_1$  and  $P_2$ , for 'defining the incident ray', and of pins  $P_3$  and  $P_4$ , for finding the emergent ray', has been done by student: (1)

	a. A
	b. C
	c. B
	d. D
3.	When a lemon kept in water in a bowl is viewed from outside, it appears
	than its actual size. (1)
	a. None of these
	b. Smaller
	c. Larger
	d. Same
4.	As incident angle is increased for a given pair of medium, the refraction angle will (1)
	a. decrease
	b. always remains same
	c. may increase or decrease
	d. increase
5.	An object move a distance 'f' between 2f and f of a concave mirror. The image would
	have travelled a distance of (1)
	a. $\frac{f}{2}$
	2
	b. ∞
	c. 2f
	d. f
6.	What is a ray of light? (1)
7.	What is the name given to the centre of the mirror ? (1)
8.	What is an optically denser medium? (1)
9.	Define the term angle of incidence. (1)
10.	State two factors which determine lateral displacement of a ray of light passing
	through a rectangular glass slab. (3)

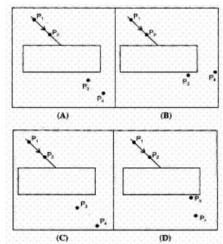
- 11. Draw ray diagram showing the image formation by a convex lens when an object is placed at twice the focal length of the lens. (3)
- 12. A concave lens has a focal length of 10 cm. An object 2.5 cm high is placed 30 cm from the lens. Determine the position and size of the image. (3)
- 13. Two friends Kapil and Rohit were studying in the same class. One day Rohit observed that Kapil was having pain in gums during lunch time. Rohit told Kapil that his father was dentist and asked him to visit his father's clinic. Rohit's father examined Kapil with the help of a mirror and advised him not to eat too many chocolates and soft drinks. Kapil follow ed the advise of the doctor and soon he got recovered. After that he starts taking care of his mouth, as he washes his mouth properly after every meal and also starts taking a calcium rich diet. Read the given passage and answer the following questions: (3)
  - i. Identify the mirror used by the dentist.
  - ii. Name the phenomenon of light by which doctor is able to exam ine Kapil.
  - iii. What values are shown by doctor, his son and Kapil?
- 14. Define the principal focus of concave mirror. (5)
- 15. How are the images formed when an object is moved from infinity to the convex lens?
  (5)

#### **Chapter 10 Light Reflection and Refraction**

1. A student performs an experiment on finding the focal length of a convex lens by keeping a lighted candle on one end of laboratory table, a screen on its other end and the lens between them as shown in the figure. The positions of the three are adjusted to get a sharp image of the candle flame on the screen. If now the candle flame were to the replaced by a distant lamp on a far away electric pole, the student would be able to get a sharp image of this distant lamp on the screen by moving (1)



- a. the screen in the direction of the lens or the lens away from the screen
- b. neither the screen nor the lens
- c. the screen in the direction of the lens or the lens in the direction of the screen
- d. the screen away fro the lens or the lens in the direction of the screen
- 2. Four students set up the glass slab experiment as shown below:



The correct fixing of the pins  $P_1$  and  $P_2$ , for 'defining the incident ray', and of pins  $P_3$  and  $P_4$ , for finding the emergent ray', has been done by student: (1)

# **MATHEMATICS**

## **EAST POINT SCHOOL**

#### Assignment - X

#### Pair of linear equations in two variables

#### **Graphical Representation**

- Solve graphically the system of equations, and state the type of solution.
  - 3x 2y = 4a) x + y = 3;
  - b) 2x + 4y = 10; 3x + 6y = 12
  - c) 3x y = 2; 9x - 3y = 6
- Use a single graph paper and draw the graph of the following equations:

$$2y - x = 8$$
;  $5y - x = 14$ ;  $y - 2x = 1$ 

Does the points (0,4), (-2,-3) and (2,1) lies on any line, if yes write the equation of line

Solve the following system of equations graphically 3.

$$x + 3 = 6$$
;  $2x - 3y = 12$ 

and hence find the value of 'a', if 4x + 3y = a

4. Draw the graphs of

$$2x + y = 6$$
;  $2x - y + 2 = 0$  and  $y = 0$   
a) Shade the Triangular region

- b) Find the coordinates of triangle
- c) Find the area of Triangle
- d) Write the coordinates where these lines cut x-axis
- e) Write the coordinates where these lines cut y-axis.
- Draw the graphs of 5.

$$x - y = 1$$
;  $2x + y = 8$  and  $x = 0$ 

- a) Shade the Triangular region.
- b) Find the coordinates of triangle.
- c) Find the area of Triangle.
- d) Write the coordinates where these lines cut x-axis.
- e) Write the coordinates where these lines cut y-axis.
- 6. Draw the graphs of

$$2x - y - 2 = 0$$
;  $4x + 3y - 24 = 0$  and  $y + 4 = 0$ 

- a) Shade the Triangular region.
- b) Find the coordinates of triangle.
- c) Find the area of Triangle.
- d) Write the coordinates where these lines cut x-axis.
- e) Write the coordinates where these lines cut y-axis.
- 7. Draw the graphs of the following equations on the same graph paper.

$$2x + y = 2$$
;  $2x + y = 6$ 

Find the coordinates of the vertices of the trapezium formed by these lines. Also, find the area of the trapezium so formed.

- Determine graphically the coordinates of the vertices of a triangle, equations of sides are:
  - a) y = x, y = 2x, y + x = 6
  - b) y = x, 3y = x, x + y = 8
- Graphically, solve the following pair of equations:

$$2x + y = 6$$
;  $2x - y + 2 = 0$ 

Find the ratio of the areas of the two triangles formed by the lines representing these equations with the x-axis and the lines with the y-axis.

10. Draw the graph of the lines x = -2; y = 3; x = 0; y = 0. Write the vertices of the figure formed by these lines. Also, find the area of the figure.

# **SANSKRIT**

# अशुद्धि शोधन

१- शुद्धम् कृत्वा पुनः लिखत -
क) उभयतः छात्राः <u>अस्ति  </u>
 ख) <u>सैनिक:</u> गच्छन्ति
ग) वृद्धा काणः अकरोः ?
 घ) अन्य भवनानि अप <u>ि भवति</u> ?
 ड) सः प्रश्नं <u>पृच्छेयु:</u> ?
 २- शुद्धम् कृत्वा पुनः लिखत -
क) <u>विद्यालयस्य</u> उभयतः छात्राः सन्ति
 ख) सैनिकाः <u>नगरस्य</u> प्रति गच्छन्ति
 ग) वृद् <u>धा नेत्रम्</u> काणः अकरोत् ?
 घ) <u>भटै:</u> मोदकं रोचते?
 ड) सः प्रश्नं <u>पृच्छन्ति</u> ?
 ३- शुद्धम् कृत्वा पुनः लिखत -
क) त्वं गृहं गच्छति
 ख) अहम् गच्छेत
 ग) वयं अलिखम
 घ) सर्वे पठतु
 ड) नद्यौ वहन्ति
 ४- लोट् लकारे विधिलिंग लकारे च परिवर्तनम्
कृत्वा पुनः लिखत -
क) त्वं गृहं गच्छसि
ख) अहम् गच्छामि
ग) वयं लिखाम:
घ) सर्वे पठति
 ड) नद्यौ वहत: