Acids, Bases and Salts

ORAL QUESTIONS

A. Answer these questions orally.

1. What kind of taste do acids have?
2. What kind of taste do bases have?
3. What is the sour taste of lemon due do?
4. Should we use taste as a way of testing to know if a substance is an acid or not?
5. Name the acid found in vinegar.

PUZZLE/QUIZ

B. The names of seven indicators are hidden in this word maze. Find their names and write their effects on acidic and basic solutions.

P	A	T	F	E	M	A	H	I	D	H	F	W	A	R
H	H	R	D	J	E	K	J	E	R	K	G	X	F	E
E	S	E	K	A	T	T	D	D	D	Y	T	Y	E	D
N	E	D	N	I	H	L	Z	G	E	E	U	X	D	C
O	B	L	S	O	Y	E	H	G	D	I	R	Z	X	A
L	K	I	T	B	L	U	E	L	I	T	M	U	S	B
P	B	T	F	M	O	P	T	E	T	P	E	I	V	B
H	T	M	H	E	R	G	H	D	E	Q	R	R	T	A
T	S	U	N	R	A	I	S	T	D	R	I	C	D	G
H	U	S	O	T	N	L	E	L	H	S	C	B	U	E
A	Z	D	E	S	G	E	K	R	S	A	V	T	E	P
L	N	S	C	C	E	X	Q	E	Y	T	L	R	X	E
E	C	P	L	C	H	I	N	A	R	O	S	E	B	T
I	B	M	D	H	L	Z	I	E	I	M	W	L	I	D
N	N	N	E	R	E	Y	T	I	O	U	X	R	I	N

C. Match the columns.

COLUMN A COLUMN B

1.	Tea	(a)	Oxalic acid
2.	Ant sting	(b)	Lactic acid
3.	Tamarind	(c)	Tannic acid
4.	Spinach	(d)	Formic acid
5.	Curd	(e)	Tartaric acid
6.	Unripe green apples	(f)	Acetic acid
7.	Vinegar	(g)	Citric acid
8.	Amla	(h)	Maleic acid

S.NO.	INDICATOR	COLOUR CHANGE ON ADDING IN AN ACIDIC SOLUTION	COLOUR CHANGE ON ADDING IN A BASIC SOLUTION
1.			
2.			
3.			
4.			
5.			
6.			
7.			

D. Try to answer.

1. Which acid is called the king of chemicals and why?
2. What is acid rain?
3. Name the acids found in acid rain.

E. Pretend that you are a base. Now, answer the following questions.

1. What is your taste–sour or bitter?

_____

2. Are your properties similar or opposite to acids?

_____

3. Do you produce a soapy feeling when rubbed on palm?

_____

4. Which of these belong to your group—curd, baking soda, calcium hydroxide, spinach, tamarind, magnesium hydroxide, quicklime, vinegar, wasp's sting, milk of magnesia.

   _____

5. Do all chemicals belonging to your group dissolve in water?

   _____

6. Why should we handle you with care?

   _____

7. What are the products formed when we react you with an acid?

   _____

8. What is the above reaction called?

   _____

CLASS TEST

F. Very short answer questions.

1. Name the substance which changes its colour in acidic and basic solutions.

   _____

2. Are all indicators of natural origin?

   _____

3. How did the term 'acid' originate?

   _____

4. Name the acid found inside your stomach.

   _____

5. Are all bases corrosive in nature?

   _____

6. Name two synthetic indicators.

   _____

7. Where is litmus extracted from?

   _____

8. What are the substances which are neither acidic nor basic classified as?

   _____

9. Name the base used to neutralise the pain caused by an ant sting.

_____

G. Short answer questions.
1. All acids are not corrosive. Justify this statement with examples.

_____

_____

2. Bases are chemicals that are opposite to acids. How can you justify this statement?

_____

_____

3. What is an indicator?

_____

_____

H. Long answer questions.
1. List any three uses of neutralisation reaction in our daily life.

_____

_____

_____

_____

_____

2. Sometimes when we do a lot of physical exercise, our muscles get tired and we can feel cramps in our muscles. Why?

_____

_____

_____

_____

I. Think and Answer.

1. (a) What is the colour of the solution when a drop of phenolphthalein is added to hydrochloric acid?

   _____

   _____

   _____

   (b) Which colour starts appearing when sodium hydroxide solution is added dropwise to this solution?

   _____

   _____

   _____

2. (a) A substance 'X' is treated with a blue litmus paper. It did not show any colour change. What conclusion can you draw about the nature of the substance?

   _____

   _____

   _____

   (b) Ritu, then put a drop of phenolphthalein in substance 'X'. She observed that the colour changed from colourless to pink. Can you now confirm the nature of substance X?

   _____

   _____

   _____

3. Poonam wanted to neutralise a base. Which of the following solutions should she use? Baking soda solution, sugar solution, vinegar, common salt solution, distilled water.

   _____

   _____

   _____

WORKSHEET

J. Give reasons for the following.

1. Factory wastes are usually treated with a base.

   _____

   _____

   _____

2. The pain caused due to wasp's sting can be neutralised by rubbing with vinegar.

   _____

   _____

   _____

3. The pain caused due to an ant's sting can be neutralised by using baking soda solution.

   _____

   _____

   _____

4. Milk of magnesia is taken to get relief from indigestion.

   _____

   _____

   _____

5. If the soil is too basic, it is treated by adding organic matter.

   _____

   _____

   _____

6. If the soil is too acidic, slaked lime is added to it.

   _____

   _____

   _____