



परमाणु ऊर्जा शिक्षण संस्था
Atomic Energy Education Society
कार्यपत्रक/Worksheet (2025-26)

कक्षा/Class: VII

विषय/Subject: Science

माह/Month: July

दिया गया पाठ्यक्रम/Chapter 2: Exploring Substances Acidic, Basic and Neutral

विद्यार्थी का नाम/Name of the student: _____

अनुक्रमांक/Roll No. _____ कक्षा/अनुभाग Class /Sec.: _____ दिनांक/Date: _____

Section – A

Choose the correct answer from the given options.

1. Which property is common to all acids?

- a) They taste bitter b) They turn blue litmus red
c) They feel slippery d) They turn red litmus blue

2. Which of the following can be used to treat soil that is too acidic?

- a) Adding vinegar b) Adding manure
c) Adding quicklime d) Adding water

3. Juice prepared from lemon is taken in a glass tumbler and water is added to it. Then a blue litmus paper is dipped into it. What changes will be observed?

- a) blue litmus paper turns red. b) blue litmus paper turns pink.
c) blue litmus paper becomes white. d) blue litmus paper becomes yellow.

4. A substance Y contains citric acid. What is Y?

- b) Vinegar b) Lemon c) Soap d) Spinach

5. From which of the following is the natural indicator litmus extracted?

- a) Mycorrhiza b) Lichens c) Mucor d) Mycelia

6. Which of the following will show a neutral behaviour in litmus test?

- a). curd b). soap c). water d). lemon

7. Turmeric is a natural indicator. On adding its paste to acid and base separately, which colours would be observed?

- (a) Yellow in both acid and base (b) Yellow in acid and red in base
(c) Pink in acid and yellow in base (d) Red in acid and blue in base.

8. What conclusion can you draw if a solution does not change the colour of either blue or red litmus paper?

- (a) It is acidic (b) It is basic (c) It is neutral (d) It is reactive

9. Which natural indicator gives green colour in a basic solution?

- (a) Litmus (b) Turmeric (c) Red rose extract (d) Onion juice

10. Which of the following can act as an olfactory indicator?

- (a) Onion juice (b) Lemon juice (c) Vinegar (d) Salt water

Choose the correct answer from options given below for the statements.

- (a) Both A and R are true and R is the correct explanation of A**

- (b) Both A and R are true, but R is not the correct explanation of A
 (c) A is true, but R is false
 (d) A is false, but R is true

11.Assertion(A): Sugar is a neutral substance.

Reason (R): A sugar solution turns red litmus blue.

12.Assertion(A): Ant bites can be neutralised by using baking soda.

Reason (R): Baking soda is a base, and it neutralises the formic acid injected by the ant.

13.Assertion(A): Litmus paper changes colour in the presence of acidic or basic substances.

Reason (R): Litmus is a synthetic indicator manufactured in laboratories.

14.Assertion (A). Acids are sour in taste.

Reason (R): Bases are soapy to touch and bitter in taste.

15. Case Based Questions: Read the following passage and answer the following questions given below.

Riya was playing in the garden when she felt a sharp pain on her leg. She noticed that an ant had bitten her. Her mother quickly applied a paste of baking soda on the affected area. After some time, Riya felt relief from the burning sensation.

- i) Why did Riya feel a burning sensation after the ant bite?
 a) Due to acid present in the ant's sting b) Due to salt present in the ant's sting
 c) Due to base present in the ant's sting d) Due to water loss from the skin
- ii) Which acid is commonly found in ant sting?
 a) Acetic acid b) Formic acid. c) Hydrochloric acid d) Citric acid
- iii) What is the nature of baking soda?
 a) Acidic b) Basic c) Neutral. d) Salty
- iv) What type of reaction took place between the acid in the sting and baking soda?
 a) Displacement b) Decomposition
 c) Neutralisation d) Combination

Section - B

Short Answer Type Questions (Type-I):

16. Dip some crushed red rose petals in warm water to make the extract. Add a few drops of an acid and a base separately in two different containers. Write the effect of it on acid and base.
17. Why does a turmeric stain red on a white shirt when it is washed with soap?
18. Write two basic substances which we use in our daily life.
19. What happens when you mix an acid with a base?
20. Which of the following are acidic and which are basic?
 a) Lime water b) Vinegar c) Toothpaste d) Lemon juice

Short Answer Type Questions (Type-II):

21. How do you prepare lime water?
22. How can you test if a substance is acidic, basic or neutral using litmus paper?
23. The extract of red rose turns the liquid X to green. What will the nature of liquid X be? What will happen when excess of amla juice is added to liquid X?
24. Explain the process of neutralisation with the help of an example.
