

# St. Andrews Scots School

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Session: 2026 – 2027

(Answer Key)

Class: VII

Subject: Science

Chapter: Exploring substances: Acidic, Basic and Neutral

Self-assessment: ( Page no. 18)

**A. Multiple Choice Questions:**

1. (C)                      2. (C)                      3. (C)

**B. Assertion-Reason Based Questions:**

1. (A)                      2. (C) Both assertion and reason are false.

**EXERCISE**  
**SECTION – A**

**A. Oral Questions:**

1. Bitter
2. Turmeric and hibiscus

**B. Multiple Choice Questions:**

1. (c)            2. (c)            3. (a)            4. (b)            5. (c)

**C. Assertion-Reason Based Questions:**

1. (a)            2. (c)            3. (c)

**D. Case-Based Questions:**

**Case – I**

1. The turmeric paper turned reddish-brown when a soap solution was dropped on it because soap is basic in nature.
2. The water sample showed no colour change on turmeric paper, indicating that water is neutral.
3. Turmeric is considered a useful natural indicator because it changes colour in the presence of a base but no change with acid or neutral substances.

**Case – II**

1. Meena felt discomfort after eating spicy food because the acid level in her stomach increased, causing a burning sensation.
2. The antacid helped by neutralizing the excess acid in her stomach and reducing the burning effect.
3. The chemical reaction that occurred inside her body was a neutralization reaction.

## SECTION – B

### A. Very Short Answer Questions:

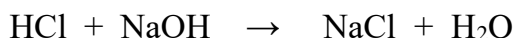
1. Lemon juice and vinegar.
2. Blue litmus paper turns red in an acidic solution.

### B. Short Answer Questions:

1. We should be careful while handling strong bases because they are corrosive and can cause skin burns or damage materials.
2. A neutral substance is neither acidic nor basic in nature. Example: pure water.
3. Indicators are used in daily life to:
  - (a) Test whether a substance is acidic or basic.
  - (b) Detect spoilage in food (some indicators show change when acidity increases).

### C. Long Answer Questions:

1. Neutralisation is the reaction between an acid and a base to form salt and water, neutralizing each other's effects.  
Example: When hydrochloric acid reacts with sodium hydroxide, it produces sodium chloride and water.



2. To prepare turmeric paper, turmeric paste is spread on filter paper and dried. When this paper is dipped in a basic solution, it turns reddish-brown, while in acids or neutral substances, it shows no colour change.
3. Neutralisation is useful in daily life in the following ways:
  - (a) To relieve pain from ant stings using baking soda.
  - (b) To treat acidic soil by adding quicklime or slaked lime.

### D. Application-Based Questions:

1. Baking soda helps because it is a base that neutralizes the formic acid injected by the ant, reducing the burning sensation.
2. The waste released by the factory may contain acids or harmful chemicals that make the water too acidic for fish to survive. This can be solved by treating the waste before releasing it to neutralize its harmful components.

### E. Picture-Based Questions:

1. Lemon juice turned blue litmus paper red.
2. The soap solution is basic in nature.

### F. Life Skills:

#### Observation:

When turmeric paste on paper is touched with soap solution or baking soda, the colour changes to reddish-brown, showing that these substances are basic in nature.