

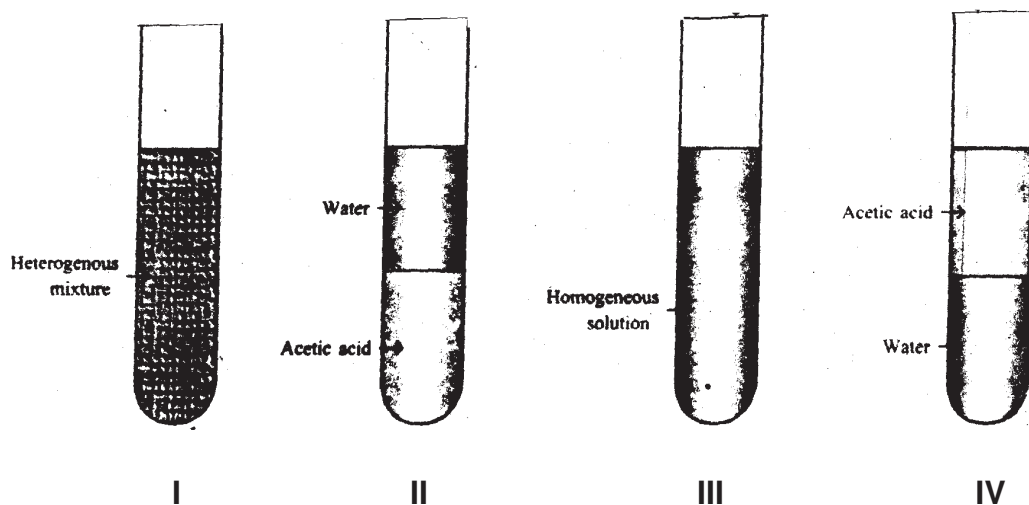
## Experiment - 15

### Properties of Acetic Acid

Aim : To study the following properties of acetic acid (ethanoic acid,  $\text{CH}_3\text{COOH}$ )

- (i) odour
- (ii) solubility in water
- (iii) effect on litmus paper
- (iv) reaction with sodium bicarbonate

Q. 1 Which one of the following would be observed when 10ml of acetic acid is added to 10ml of water?



- (a) II                      (b) III                      (c) I                      (d) IV

Q. 2 Which one of the formula of ethanoic acid (acetic acid)

- (a)  $\text{NaHCO}_3$                       (b)  $\text{Na}_2\text{CO}_3$   
(c)  $\text{CH}_3\text{COOH}$                       (d)  $\text{CH}_3\text{CH}_2\text{OH}$

Q. 3 Which one of the following has vinegar like odour?

- (a) Sodium bicarbonate                      (b) Ethanol  
(c) Acetic acid                      (d) sodium carbonate

Q. 4 On adding blue litmus solution to acetic acid the colour changes to

- (a) Red                      (b) Blue  
(c) Orange                      (d) No change in colour

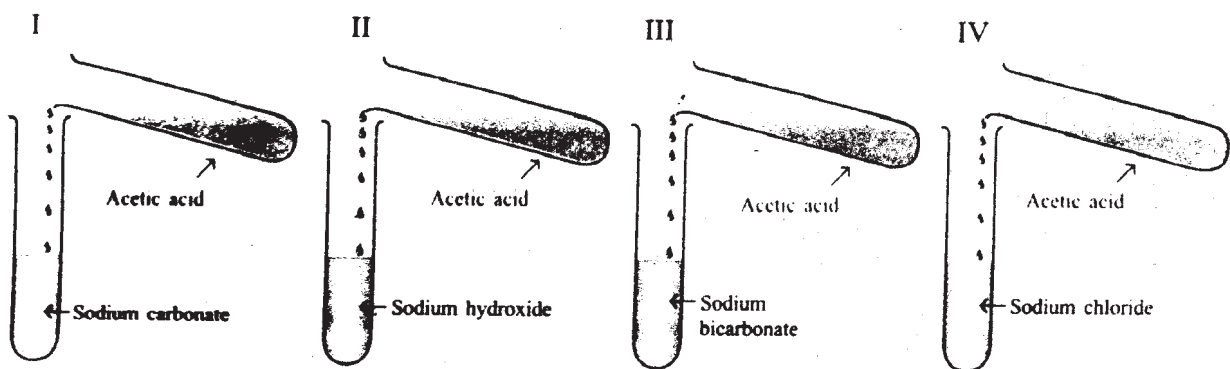
- Q. 5 What is the nature of acetic acid?
- (a) Basic (b) Neutral  
(c) Acidic (d) Amphoteric
- Q. 6 Which is the correct statement for the solution when 2ml of acetic acid is mixed with water?
- (a) Transparent (b) Precipitate  
(c) Turbid (d) Separate layer of acid
- Q. 7 For testing the effect of vapours of acetic acid on litmus paper, the litmus paper :-
- (a) should be moist  
(b) should be dry  
(c) may be moist or dry it does not matter  
(d) does not give any test
- Q. 8 2ml of acetic acid solution is taken in a test tube. On adding a pinch of 'X' effervescence of a gas 'y' is produced, which turns lime water milky. Name 'X' and 'y'.
- (a) sugar and CO<sub>2</sub> gas respectively  
(b) common salt and H<sub>2</sub> gas respectively  
(c) Sodium bicarbonate and CO<sub>2</sub> has respectively  
(d) Hydrochloric acid more hydrogen gas
- Q. 9 Yamini studies the properties of acetic acid in laboratory and recorded the observation as given in table. Which one is correct record of the following :-

Option	Odour		Solubility in water	
	Vinegar	Lemon	Partially soluble	Soluble
a	✓	✗	✓	✗
b	✓	✗	✗	✓
c	✗	✓	✗	✓
d	✗	✓	✓	✗

Q. 10 Vasu studies the chemical properties of acetic acid in laboratory. He recorded the observations in the table given below. The correct option of result would be in :-

Option	effect on litmus		Reaction with $\text{NaHCO}_3$	
	Vinegar	Lemon	Partially soluble	Soluble
a	✓	✗	✓	✗
b	✓	✗	✗	✓
c	✗	✓	✗	✓
d	✗	✓	✓	✗

Q. 11 A student added acetic acid to test tube I, II, III and IV and then introduced a burning candle near the mouth of each test tube. In which case of candle would not be extinguished?



(a) I and II

(b) I and III

(c) II and III

(d) II and IV