

PM SHRI KENDRIYA VIDYALAYA SITAPUR SHIFT 1
PERODIC TEST 1 (2025-26)

CLASS: VII

SUBJECT: SCIENCE

M.M: 40 Marks

TIME: 90 min.

General Instructions:

All questions are compulsory.

This question paper contains four sections A, B, C and D. There are 20 questions in this question paper.

Section A has 10 Multiple choice questions (MCQ) carrying 1mark each.

Section B has 6 Short answer type questions carrying 2 marks each.

Section C has 2 Long answer type questions carrying 5 marks each.

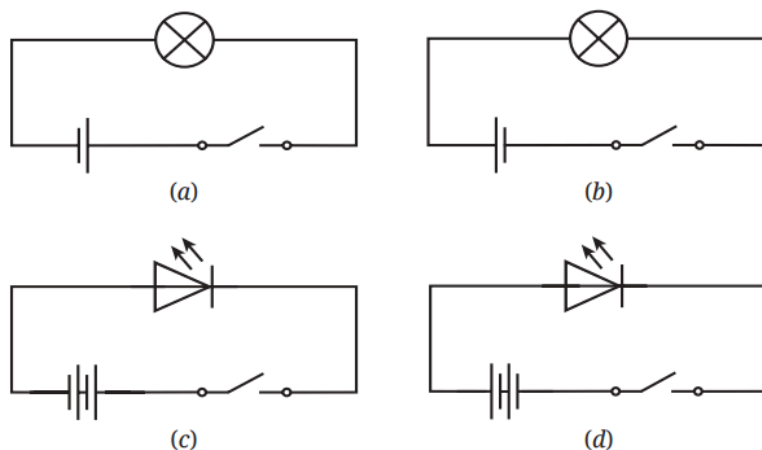
Section D has 2 Case based questions carrying 4 marks each.

SECTION: A

1. When a switch is in OFF position,
 - (i) circuit starting from the positive terminal of the cell stops at the switch.
 - (ii) circuit is open.
 - (iii) no current flows through it.
 - (iv) current flows after some time

Choose the combination of correct answer from the following.

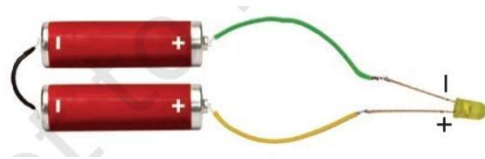
 - (a) All are correct
 - (b) (ii) and (iii) are correct
 - (c) Only (iv) is correct
 - (d) Only (i) and (ii) are correct
2. Turmeric is a natural indicator. On adding its paste to acid and base separately, which colours would be observed
 - (a) Yellow in both acid and base.
 - (b) Yellow in acid and red in base.
 - (c) Pink in acid and yellow in base.
 - (d) Red in acid and blue in base.
3. When the soil is too basic, plants do not grow well in it. To improve its quality what must be added to the soil?
 - (a) Organic matter
 - (b) Quick lime
 - (c) Slaked lime
 - (d) Calamine solution
4. A solution changes the colour of turmeric indicator from yellow to red. The solution is
 - (a) acidic
 - (b) Neutral
 - (c) either neutral or acidic
 - (d) basic
5. A solution turns the red litmus paper to blue. Excess addition of which of the following solution would reverse the change?
 - (a) Lime water
 - (b) Baking soda
 - (b) Vinegar
 - (d) Common salt solution
6. In Fig. in which case(s) the lamp will not glow when the switch is closed?



7. Choose the incorrect statement.
 - (a) A switch is the source of electric current in a circuit.
 - (b) A switch helps to complete or break the circuit.
 - (c) A switch helps us to use electricity as per our requirement.
 - (d) When the switch is in 'OFF' position, there is an air gap between its terminals.
8. A battery is a combination of :
 - a. a cell and wire
 - b. two cell
 - c. two or more cell
 - d. none of the above
9. Which of the following correctly represents the full form of LED
 - (a) Light emersion diode
 - (b) Long emitting diode
 - (c) Light emerging diode
 - (d) Light emitting diode
10. Any substance whose odour changes by adding acidic or basic substances in it is called
 - (a) Olfactory indicator
 - (b) Smell indicator
 - (c) Fruit indicator
 - (d) Nose indicator

SECTION: B

11. While playing in a park, a child was stung by a honey bee Some elders suggested applying the paste of baking soda and other lemon juice as the remedy. Which remedy do you think is appropriate and why?
12. State whether the given statements are true or false
 - (i) we should eat base during acidity in our stomach
 - (ii) Litmus solution is made from beetroot plant which is found at mountains.
13. An LED requires two cells in series to glow. Tanya made the circuit as shown in Fig. 3.21. Will the lamp glow? If not, draw the wires for correct connections.

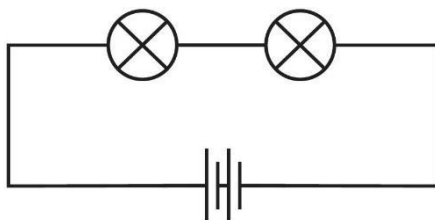


14. Write the symbols for given electric circuits:

- (i) a battery with 4 cells
- (ii) open switch
- (iii) a glowing LED
- (iv) an electric bulb

15. 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?

16. In Fig, if the filament of one of the lamps is broken, will the other glow? Justify your answer.

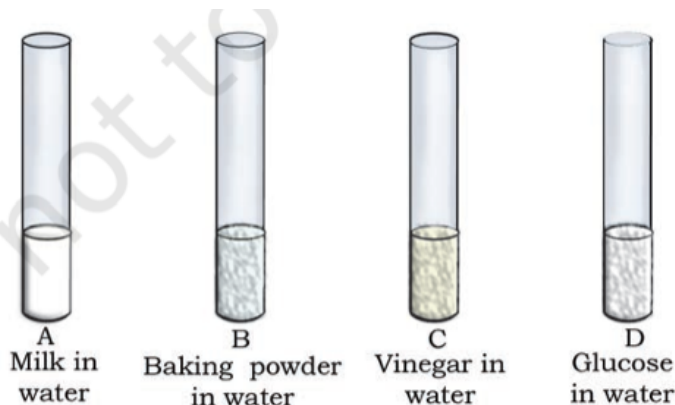


SECTION: C

17. Answer the following questions

- (i) What is the role of switch in an electric circuit?
- (ii) Why do we use LEDs instead of bulbs in our home?
- (iii) How will you design a simple tester to test materials as conductor and insulator
- (iv) Why do a repair mechanic uses rubber gloves and instruments coated with plastic to repair a circuit
- (v) What are some of the sources of generation of electric current.

18. (a) Look at Figure 5.1 which shows solutions taken in test tubes A,B,C and D. What colour is expected when a piece of red litmus paper is dropped in each test tube? Nature of the solutions is given in the table for your help



State the nature of the give solution. Also write what will the colour of red litmus paper when it is dipped in each four solution.

(b) Match the substances in Column I with those in Column II.

Column I	Column II
(a) Tartaric acid	(i) soap
(b) Calcium hydroxide	(ii) curd
(c) Formic acid	(iii) unripe mangoes
(d) Sodium hydroxide	(iv) ant's sting
(e) Lactic acid	(v) lime water

SECTION: D

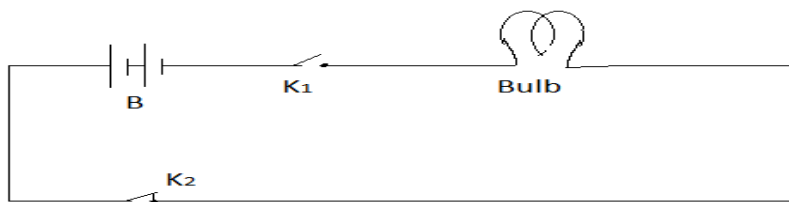
19. Read the passage and answer the following questions:

Reena observed that the soil in her garden was not supporting healthy plant growth. She tested the soil using red and blue litmus paper and found that blue litmus turned red. Her teacher advised her to add a certain substance to the soil to neutralize its effect.

- What does the change in litmus paper indicate about the nature of the soil?
- What type of substance should Reena add to the soil?
- Name one such substance that can be used to reduce soil acidity.
- If the condition is reversed which substance will be used to make soil acidic from excessive basic?

20. Read the passage carefully and answer the following questions.

Mohan accompanied his father to an electrical repair shop, where he was excited to see so many different types of electrical elements, equipment's, appliances and their internal parts. He was so curious that he started asking about each of them to his father and the electrician present there. He got to know that cell is one of the sources of electricity and when many cells are connected in series then batteries are formed, which gives more electricity. Mohan had learnt about series connection, so he could relate to it and understood the concept. He started playing and made a small electrical circuit as shown below using the material present in shop.



(1) Mohan wonders why the bulb in above circuit does not glow and he writes down the possible causes he could think of

- Key K1 is open
- Filament of bulb is broken
- Circuit is incomplete
- Key K2 is open

Choose the correct option for why bulb was not glowing from below

(1)

- (e) (i) and (ii)
- (f) (b) (iii) and (iv)
- (g) (c) (i), (ii) and (iii)
- (h) (d) (ii) and (iv)

(2) How many cells are connected in above circuit to form battery B? (1)

- (a) One
- (b) Two
- (c) Three
- (d) Four

(3) Draw a closed electric circuit using a cell, a bulb , switch and connecting wires (2)

OR

(3) Why did the electrician advise Mohan not to touch a lighted bulb when connected to the mains and only to use cells for activities?