

PM SHRI KENDRIYA VIDYALAYA SITAPUR SHIFT 1

HALF YEARLY EXAMINATION (2025-26)

CLASS: VII

SUBJECT: SCIENCE

M.M: 60 Marks

TIME: 2hr 30min

General Instructions:

All questions are compulsory.

This question paper contains five sections A, B, C, D and E. There are 28 questions in this question paper.

Section A has 15 Multiple choice questions (MCQ) carrying 1 mark each.

Section B has 3 Very short answer type questions carrying 2 marks each.

Section C has 4 Short answer type questions carrying 3 marks each.

Section D has 3 Long answer type questions carrying 5 marks each.

Section E has 3 Long answer type questions carrying 4 marks each.

SECTION A

1. Products of neutralization reaction are always:

- (a) An acid and base (b) An acid and a salt (c) A salt and water (d) A salt and a base

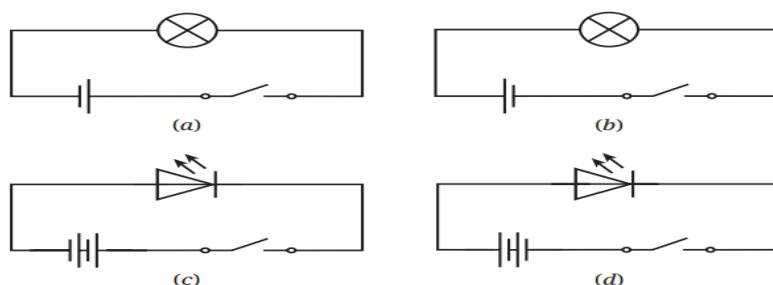
2. Turmeric is a natural indicator. On adding its paste to acid and base separately, which colours would be observed

- (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. A battery is a combination of :

- (a) a cell and wire
(b) two cells
(c) two or more cell
(d) none of the above

4. In Fig. in which case(s) the lamp will not glow when the switch is closed?



5. The metal cap of an electric cell serves as the terminal of the electrical cell.

- (a) Negative (b) Positive (c) Neutral (d) Conductors

6. Which metal is commonly used to make food packaging materials as it is cheaper, and its thin sheets can be folded easily into any shape?

- (a) Aluminium (b) Copper (c) Iron (d) Gold

7. Generally metallic oxides are basic and non-metallic oxides are acidic in nature. Solution of which of the following oxides in water will change the colour of blue litmus to red?

- (a) sulphur dioxide (b) magnesium oxide (c) iron oxide (d) copper oxide

8. Which of the following metal catches fire when it comes in contact with water?

- (a) Copper (b) Aluminium (c) Zinc (d) Sodium

9. Which of the following statements are the characteristics of a physical change?

- (i) The state of the substance may or may not change.
- (ii) A substance with different properties is formed.
- (iii) No new substance is formed.
- (iv) The substance undergoes a chemical reaction.

- (a) (i) and (ii)
- (b) (ii) and (iii)
- (c) (i) and (iii)
- (d) (iii) and (iv)

10. Which of the following is/are true when milk changes into curd?

- (i) Its state is changed from liquid to semi solid.
- (ii) It changes colour.
- (iii) It changes taste.
- (iv) The change cannot be reversed.

Choose the correct option from below:

- (a) (i) and (ii) are correct
- (b) (ii) and (iii) are correct
- (c) (i), (iii) and (iv) are correct
- (d) (i) to (iv) are correct

11. Which type of food a boy or a girl both should take during adolescence?

- (a) Junk food
- (b) Fast food
- (c) Whole grain and balance diet
- (d) Deep fried food

12. Which of the following correct represents the age group of adolescence

- (a) 13 to 19 years
- (b) 10 to 19 years
- (c) 8 to 16 years
- (d) 12 to 18 years

DIRECTIONS for the question 12 to 15: In each of the questions given below, there are two statements marked as Assertion (A) and Reason (R). Mark your answer as per the codes provided below:

- (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.

13. **Assertion (A):** A bulb glows when connected in a closed electric circuit.

Reason (R): A closed circuit provides a continuous path for electric current to flow.

14. **Assertion (A):** Electric wires are made up of copper.

Reason (R): Copper is metal and metals are ductile.

15. **Assertion (A):** All changes that happens in nature are chemical changes.

Reason (R): Breaking of stones and its conversion into pebbles is physical change.

SECTION B

16. You are provided with the following materials. Discuss which material would be your choice to make a pan that is most suitable for boiling water and why?

Iron,	copper,	sulfur,	coal,	plastic,	wood,	cardboard
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17. Write the symbols for given electric circuits:

- (i) a battery with 4 cells
- (ii) open switch

18. Name one acid and one base found in the kitchen.

SECTION C

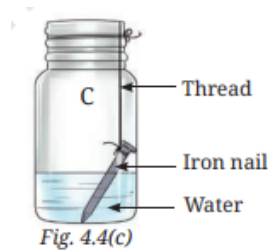
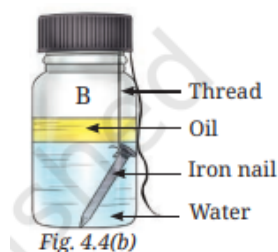
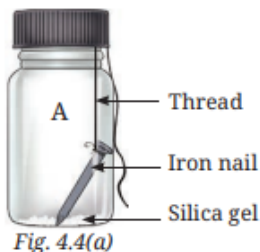
19. Fill the blank spaces with suitable words:



20. Fill in the blanks in the following statements:

- (i) Nalini observed that the handle of her cycle has got brown deposits. The brown deposits are due to _____, and this is a _____ change.
- (ii) Folding a handkerchief is a _____ change and can be _____.
- (iii) A chemical process in which a substance reacts with oxygen with evolution of heat is called _____, and this is a _____ change.

21. Which of the following nail will rust and which does not? Explain with reason?



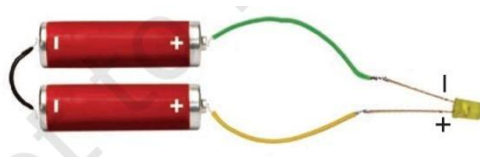
22. The extract of red rose turns the liquid X to green. What will the nature of liquid X be? What will happen when excess of amla juice is added to liquid X?

SECTION D

23. (i) Paheli is suffering from indigestion due to acidity. Is it advisable to give her orange juice in this situation and why? [2]
(ii) Name any two natural indicators. [1]
(iii) 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? [2]

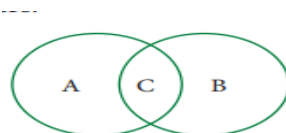
24. Answer the following questions

- I. What is the role of switch in an electric circuit?
- II. Why do we use LEDs instead of bulbs in our home?
- III. An LED requires two cells in series to glow. Tanya made the circuit as shown in Fig. Will the lamp glow? If not, draw the wires for correct connections.



- IV. Why do a repair mechanic use rubber gloves and instruments coated with plastic to repair a circuit?
 - V. A student forgot to remove the insulator covering wires while making a circuit. If the lamp and cell are working properly, will the lamp glow?
25. Some changes are given here. Write physical changes in the area marked 'A' and chemical changes in the area marked 'B'. Enter the changes which are both physical and chemical in the area marked 'C'.

Process of burning a candle; Tearing of paper; Rusting; Curdling of milk;
Ripening of fruits; Melting of ice; Folding of clothes; Burning of magnesium
and Mixing baking soda with vinegar; Breaking of stones from mountain.



SECTION E

- 26.** Read the following story titled 'Eco-friendly Prithvi', and tick the most appropriate option(s) given in the brackets. Provide a suitable title of your choice for the story.

Prithvi is preparing a meal in the kitchen. He chops vegetables, peels potatoes, and cuts fruits (physical changes/chemical changes). He collects the seeds, fruits, and vegetable peels into a clay pot (physical change/chemical change). The fruits, vegetable peels, and other materials begin to decompose due to the action of bacteria and fungi, forming compost (physical change/chemical change). He decides to plant seeds in the compost and water them regularly. After a few days, he notices that the seeds begin to germinate and small plants start to grow, eventually blooming into colorful flowers (physical change/chemical change). His efforts are appreciated by all his family members. [4]

- 27. Read the following passage and answer the following question:**

Do you know that many metals and their alloys (mixtures of two or more metals or a metal and a non-metal) are important for daily use as utensils and tools. These are also important for modern technologies and essential in almost every industry. Some special metals are also used in atomic energy (such as zirconium), aerospace (titanium), etc. In India, many metals, especially iron and aluminium, are recycled to minimise waste and contribute to sustainability.

- (i) What is alloy? Give some examples.
- (ii) How does alloy help us in daily life?
- (iii) Which property of metal help us to convert it into thin sheets. [4]
- (iv) Sodium catches fire in water that's why we store it into _____.

- 28. 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.

- (i) What does the change in litmus paper indicate about the nature of the soil?
- (ii) What type of substance should Reena add to the soil?
- (iii) Name one such substance that can be used to reduce soil acidity. [4]
- (iv) If the condition is reversed which substance will be used to make soil acidic from excessive basic?