Indian School Al Wadi Al Kabir
Final Examination (2025-2026)

Class: VII | Subject: SCIENCE | Max. Marks: 80
Date: 10/03/2026 | Set - II | Time: 2 ½ HOURS

General Instructions:

Read the following instructions carefully.

i. All questions are compulsory. Marks are indicated against each section.
ii. The question paper comprises 8 pages and 39 questions in 5 sections: A, B, C, D and E.
*iii. Q.1 to Q.16 in **section A** -MCQ carry **ONE** mark each. Write the correct answer along with the option in the answer script.*
*iv. Q.17 to Q.20 in **section A** -Assertion and Reason carry **ONE** mark each.*
*v. Q.21 to Q.26 in **section B** are Short Answer Type Questions and carry **TWO** marks each.*
*vi. Q.27 TO Q.33 in **section C** are Short Answer Type Questions and carry **THREE** marks each.*
*vii. Q.34 TO Q.36 in **section D** are Long Answer Type Questions and carry **FIVE** marks each.*
*viii. Q.37 TO Q.39 in **section E** Case study/Paragraph Questions carry **FOUR** marks each.*
ix. Write the same question number as given in the question paper.
x. Correction fluid should not be used in the answer script.
xi. Diagrams should be drawn using a pencil.

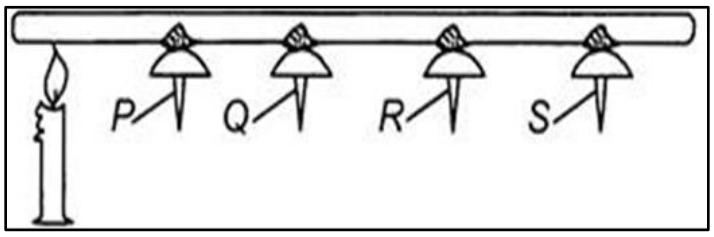
SECTION A (1 X 20 = 20)

1. A student is testing an unknown colourless solution in the laboratory. To identify its nature, the student adds a few drops of phenolphthalein indicator to the solution. After adding the indicator, no colour change is observed. What is the nature of the given solution?
   (a) Basic
   (b) Either acidic or basic
   (c) Either basic or neutral
   (d) Either acidic or neutral

2. Abhinav revisited a historical monument after 10 years. He noticed that the white monument had turned yellowish. Which event is most likely to have caused the change in colour of the monument?
   (a) Flood
   (b) Acid rain
   (c) Thunderstorm
   (d) Drought

3. After rainfall, water gathers on the ground and gradually soaks through the soil and rocks to refill underground water sources like wells and springs. What is this process called?
   (a) Evaporation
   (b) Condensation
   (c) Infiltration
   (d) Precipitation

4. In the given arrangement, pin P falls before pins Q, R, and S when heat is applied. Which of the following explains this observation?

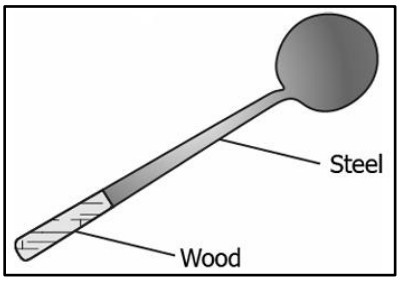


   (a) It is heavier
   (b) It receives heat directly from the candle
   (c) Wax near it is of poor quality
   (d) It is closest to the heated end of the rod

5. A student adds baking soda to vinegar while making a small volcano model for a science project. He notices a fizzing, bubbling sound accompanied by the formation of gas bubbles. What causes the fizzing and bubbles in this experiment?
   (a) Evaporation of vinegar
   (b) Release of carbon dioxide gas
   (c) Formation of oxygen gas
   (d) Melting of baking soda

6. Seema notices that a matchstick does not burn when rubbed lightly, but it catches fire when rubbed harder on the rough surface of the matchbox. Why does this happen?
   (a) Rubbing harder raises the temperature to the ignition point
   (b) Rubbing harder increases the pressure on the match head
   (c) The matchstick absorbs oxygen from the surrounding air
   (d) The rough surface of the matchbox provides the required moisture

7. Disha notices that the ladle she is using to make soup is made of two materials.



She observes that the handle of the ladle is cool, but the other end is hot. How can the two materials be classified based on the conduction of heat?

(a) Wood and steel are good conductors of heat.

(b) Wood and steel are bad conductors of heat.

(c) Wood is a good conductor of heat, but steel is not.

(d) Steel is a good conductor of heat, but wood is not.

8. A local swimming pool is being cleaned and treated. The staff adds a chemical that kills germs and makes the water safe for swimmers. Which non-metal is commonly used for water purification?

(a) Iodine

(b) Chlorine

(c) Carbon

(d) Oxygen

9. The pancreas secretes pancreatic juice that plays multiple roles in digestion. Which of the following is correct?

(a) It is acidic and helps break down food in the small intestine.

(b) It is basic in nature, neutralises stomach acids, and digests carbohydrates, proteins, and fats.

(c) It stores undigested food and releases it slowly into the large intestine.

(d) It only absorbs water and salts from the undigested food in the intestine.

10. Riya makes a kaleidoscope by fixing three plane mirrors inside a tube in a triangular shape. When she looks through it, she observes attractive repeated designs. What is mainly responsible for the formation of these repeated designs?

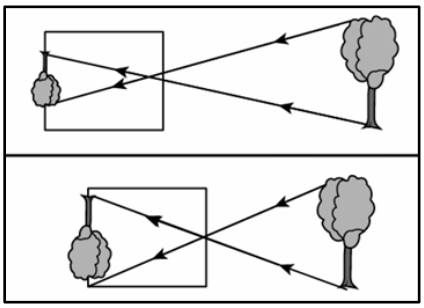
(a) Refraction of light

(b) Multiple reflections of light

(c) Absorption of light

(d) Scattering of light

11. A student observes a tree using a pinhole camera. She decreases the distance between the tree and the camera and looks at the tree through the camera again. The image formed is as shown. What can be concluded from the image?



(a) The farther the object, the larger the erect image.

(b) The farther the object, the smaller the erect image.

(c) The closer the object, the larger the inverted image.

(d) The closer the object, the smaller the inverted image.

12. Kaizad, a 15-year-old boy, recently noticed red spots and pimples appearing on his face. His dermatologist explained that this is a common issue during puberty and is caused by skin secretions. What is the main cause of acne and pimples on Kaizad's face?

(a) Mucus from nasal glands

(b) Oil glands during puberty

(c) Saliva from salivary glands

(d) Tear from tear glands

13. A 14-year-old teenager feels very happy and energetic on some days and low on others. She prefers making her own decisions, spends more time with friends, uses social media often, and is trying to understand herself better. Which behavioural change of adolescence is shown here?

(a) Physical strength development

(b) Rapid emotional changes and search for identity

(c) Loss of interest in friends and technology

(d) Complete dependence on parents

14. While setting up an electric circuit for a classroom experiment, a student evaluates different power sources to minimise the chances of electric shock and damage to components. Considering safety precautions, which option should the student prefer for operating the circuit?

(a) Connecting the circuit directly to the household mains supply to ensure continuous current.

(b) Powering the circuit through an inverter to avoid interruption during the experiment.

(c) Using a few dry cells connected in series to provide low voltage current to the circuit.

(d) Increasing the thickness of connecting wires while using a high voltage supply.

15. Why is a lunar eclipse visible from a wide area of the Earth, whereas a total solar eclipse can be seen only from a small, limited region?

(a) Because the Moon is bigger and casts a wider shadow on the Earth

(b) Because the Earth's shadow is wide, while the Moon's shadow covers only a small area

(c) Because the Sun changes its position and affects the visibility of eclipses

(d) Because lunar eclipses occur more frequently than total solar eclipses

16. What would be the effect on seasons if the Earth's axis were not tilted with respect to its axis of revolution?

(a) Seasons would change quickly and repeat many times in a year

(b) Extreme heat and cold would affect both hemispheres equally

(c) There would be no seasons, and the climate would remain similar all year

(d) Only the polar regions would show noticeable seasonal changes

For the following questions, two statements are given- one labelled Assertion (A) and the other labelled Reason (R). Select the correct answer to these questions from the codes (i), (ii), (iii), and (iv) as given below -

(i) Both A and R are true, and R is the correct explanation of the assertion.

(ii) Both A and R are true, but R is not the correct explanation of the assertion.

(iii) A is true, but R is false.

(iv) A is false, but R is true

17. **Assertion (A):** Inhaled air contains more carbon dioxide than exhaled air.

Reason (R): Carbon dioxide is produced during respiration in cells.

18. **Assertion(A):** In a plane mirror, the image of a red rose looks red, whereas its shadow is black.

Reason(R): The image is of the same colour as the object, and the shadow is always dark.

19. **Assertion (A):** In a closed circuit, a bulb glows.

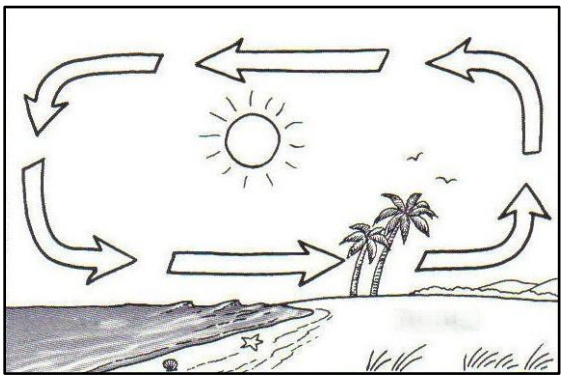
Reason (R): A closed circuit provides a complete path for the flow of electric current.

20. **Assertion (A):** The Northern Hemisphere experiences summer in June.

Reason (R): During June, the Northern Hemisphere is tilted towards the Sun and receives more direct sunlight for a longer duration.

SECTION B (2 X 6 = 12)

21. Define a **neutralisation reaction** and give one example of such a reaction by writing its **word equation**.
22. Identify and explain the natural phenomena shown in the picture given below –



23. Differentiate between reversible and irreversible changes, and give one **example** of each.
24. A boy burnt sulphur powder in the air and collected the gas in a gas jar. He then poured water into the jar, and a solution was formed as the gas dissolved in the water.
    i) Name the gas which is formed in the reaction.
    ii) What is the product formed when water is mixed with the gas?
    iii) Will the solution turn red litmus blue? **Why**?
25. What are **villi**? Mention their **function** in the process of digestion.
26. What is a periscope? Write **any two** real-life applications of it.

SECTION C (3 X 7 = 21)

27. a) What are indicators?
    b) Copy the table in your answer script and complete the table by identifying **A, B, C** and **D**.

SOLUTION	BLUE LITMUS PAPER	CHINA ROSE	TURMERIC
Hydrochloric acid	**A**	**C**	Remains yellow
Baking soda	**B**	Green	**D**

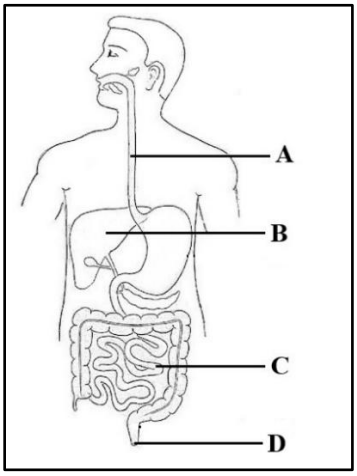
28. a) Why do people prefer wearing white or light-coloured clothes in summer and dark-coloured clothes in winter?
    b) Draw a neat and **well-labelled** diagram of the **water cycle**.

29. a) What happens when magnesium burns in air? What do you get when the product is dissolved in water?

    b) Explain the process of **rusting** and write the **word equation** for the reaction involved.

30. a) How does saliva help in the process of digestion?

    b) **Identify** and **label** the parts marked in the given diagram of the human digestive system.



31. a) Write a brief explanation for each:

    i) Substance abuse

    ii) Cyberbullying

    b) Why is personal hygiene important during adolescence?

32. a) Why should we avoid using electrical devices with wet hands or broken plugs?

    b) Define an electric circuit. How should a current flow to make an LED glow?

33. a) Differentiate between the rotation of the Earth and the revolution of the Earth.

    b) Draw a diagram showing the positions of the Sun, the Moon, and the Earth during a **solar eclipse**.

SECTION - D (5 X 3 = 15)

34. a) What are oxides? Describe the nature of non-metallic oxides.

    b) What is galvanisation? How does galvanisation protect iron from rusting?

    c) Give a reason for the following statements –

    i) Sodium metal is stored in kerosene.

    ii) Metals such as copper and aluminium are commonly used in making electric wires.

35. a) Why do we often sneeze when we breathe in air that contains a lot of dust?

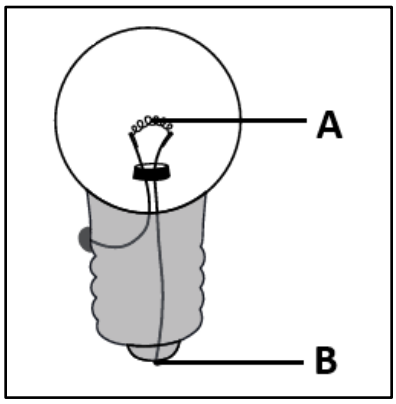
    b) Explain the mechanism of breathing.

    c) Explain respiration with the help of a word equation.

36. a) Draw a circuit diagram **using symbols** to show an electrical circuit that includes a cell, a switch, connecting wires, and an **LED lamp**.

b) Give the differences between conductors and insulators along with suitable examples.

c) Identify and label the parts of the incandescent lamp shown in the diagram.



SECTION - E (4 X 3 = 12)

37. Read the passage given below and answer the following questions.

A plane mirror is a flat, smooth, and shiny surface that reflects light. Common examples include bathroom mirrors and other flat glass mirrors that we use daily. When an object is placed in front of a plane mirror, the image formed has some special characteristics. The image is upright and of the same size as the object. It is also virtual, which means it cannot be obtained on a screen. Another important feature is lateral inversion, where the left side of the object appears as the right side in the image and vice versa. Additionally, the image appears at the same distance behind the mirror as the object is in front of it.

This property of lateral inversion is used in real life. For example, the word AMBULANCE on the hospital vans is written in the form of its mirror image because any vehicle that is ahead of the ambulance van can see the laterally inverted alphabet correctly from its rear-view mirror and make way for it to pass through and enable it to reach the hospital quickly.

(i) How would you describe lateral inversion?

(ii) What is a virtual image?

(iii) In what way is the word "AMBULANCE" written in front of the hospital vans? Why is it written in this way?

38. Read the passage given below and answer the following questions.

During adolescence, many physical and emotional changes take place as children grow into adults. Adolescence generally begins around the age of 11 and continues until about 18 or 19 years of age. This period marks the transition from childhood to adulthood and is characterised by rapid growth and several body changes in both boys and girls.

In females, one noticeable change at puberty is that the region below the waist becomes wider. This happens because the body prepares for adulthood and future reproductive roles. At the

same time, hair begins to grow under the arms and in other parts of the body. These changes are a natural part of development.

In boys, a special change that occurs during puberty is the growth of the voice box, also known as the larynx. Adam's apple is the protruding part of the throat formed due to the growth of the voice box (larynx) during puberty. It becomes visible as the larynx grows larger in boys. This growth also causes the boy's voice to deepen.

The differences in physical changes between boys and girls during puberty are due to the different ways their bodies develop. Since the changes at puberty are different in girls and boys, the signs and observations related to their development also differ.

(i) When does adolescence begin, and how long does it last?

(ii) What physical changes occur in females during puberty?

(iii) What is Adam's apple, and why does it become visible in boys during puberty?

39. Read the passage given below and answer the following questions.

On a clear evening between March and May, the Big Dipper (Saptarishi) can be seen in the northern sky. The two outer stars of the Big Dipper help us locate the Pole Star (Dhruva Tara). If we observe the sky at different times, such as 7 PM, 9 PM, and 11 PM, we notice that the Big Dipper changes its position.

The Pole Star appears almost stationary because the Earth's axis of rotation points very close to it. Due to this reason, other stars seem to move around the Pole Star during the night.

Stars appear to move from east to west because the Earth rotates from west to east. This is why the Big Dipper and other stars seem to change their position as time passes.

Astrophotography uses long exposure photography to capture the movement of stars in the sky. Star trails are circular arcs seen in long exposure photographs. They are formed due to the apparent movement of stars around the Pole Star as the Earth rotates. These star trails clearly show how stars appear to move around the Pole Star.

(i) Why does the Pole Star appear almost stationary in the sky?

(ii) Why do stars appear to move from east to west in the sky?

(iii) What are star trails? How are they formed?