



# Indian School Al Wadi Al Kabir

## Mid-term Examination (2025-2026)

Class: VIII  
Date: 25/09/2025

Subject: SCIENCE  
Set- II

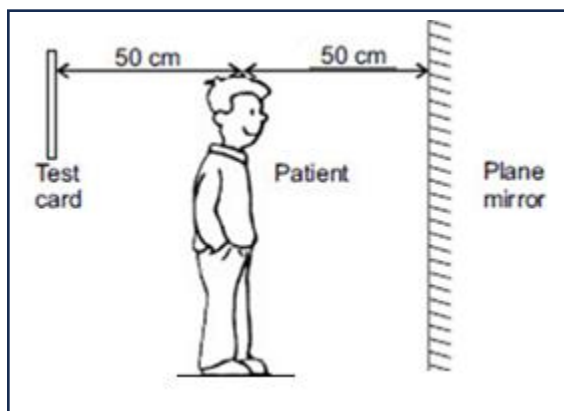
Max. marks: 80  
Time: 2 ½ Hours

### **General Instructions:**

- i. All questions are compulsory. Marks are indicated against each section.*
- ii. The question paper comprises **9 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 that 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 the one given on the question paper.*
- x. Correction fluid should not be used in the answer script.*
- xi. Diagrams should be drawn using a pencil.*

### **SECTION A (1X20=20)**

1. A farmer in village A sows seeds manually, while another farmer in village B uses a seed drill. After a few weeks, the crop in village B looks healthier and more uniform than in village A. Which of the following best explains this observation?
  - a) A seed drill ensures uniform depth and spacing of seeds, leading to better germination.
  - b) Manual sowing makes the soil more fertile.
  - c) Birds prefer eating seeds from village B's fields.
  - d) Manual sowing allows seeds to germinate faster.
  
2. Continuous cultivation of the same crop in a field without manuring will most likely lead to which of the following long-term effects?
  - a) Soil will become richer in minerals as plants keep recycling nutrients.
  - b) Soil will gradually lose its fertility, resulting in poor crop yield.
  - c) Soil will remain unaffected because plants do not depend on soil nutrients.
  - d) Soil structure will improve naturally without any addition of nutrients.
  
3. An optician holds a test card 50 cm behind a patient. The patient looks at the image of the card in a plane mirror kept 50 cm in front of him. What is the distance of the image of the test card from the patient's eyes?



- a) 150 cm
- b) 100 cm
- c) 50 cm
- d) 200 cm

4. The following characteristics are observed in a certain eye defect:

(i) Eyesight becomes foggy.
(ii) The eye lens becomes cloudy.
(iii) There is a loss of vision.

Which defect shows these symptoms?

- a) Short-sightedness
- b) Long-sightedness
- c) Cataract
- d) Night blindness

5. In underground deposits, petroleum and natural gas are found above water because:

- a) Oil and gas are heavier than water and settle on top.
- b) Oil and gas are lighter than water and do not mix with it.
- c) Water actively pushes oil and gas upward.
- d) Oil and gas dissolve in water and float.

6. A substance X is a black, thick liquid with a strong smell, obtained from a non-renewable resource. It is a mixture of about 200 substances and is used to make dyes, paints, explosives, and perfumes. Identify substance X.

- a) Coke
- b) Coal tar
- c) Kerosene
- d) Lubricating oil

7. Which of the following practices recommended by the Petroleum Conservation Research Association (PCRA) helps in saving petrol or diesel by improving fuel efficiency during driving?

- a) Frequently speeding up and applying breaks suddenly to save time.
- b) Driving at a constant and moderate speed while ensuring correct tyre pressure and regular vehicle maintenance.
- c) Leaving the engine running at traffic lights to keep the vehicle ready to move.
- d) Maintaining low tyre pressure to increase road grip in all conditions.

8. Which of the following correctly defines an endemic species?

- a) Species found all over the world.
- b) Species found only in a particular region.
- c) Species that have become extinct.
- d) Species introduced from other regions.

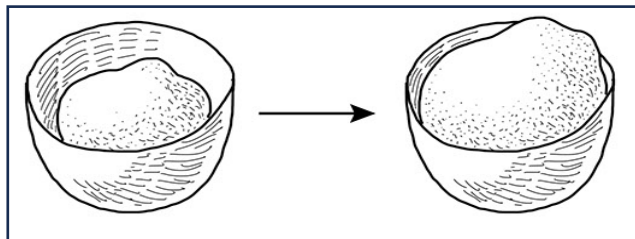
9. Which of the following is a consequence of deforestation?

- a) Increase in the soil's water-holding capacity.
- b) Faster infiltration of water into the soil.
- c) Higher levels of carbon dioxide in the atmosphere causing global warming.
- d) Formation of more clouds leading to increased rainfall.

10. Every year, thousands of Siberian cranes travel thousands of kilometres from Siberia to India to escape extreme cold and find food. This regular, seasonal journey is an example of:

- a) Exploration
- b) Migration
- c) Hibernation
- d) Relocation

11. Riya is baking bread at home. She notices that the dough becomes soft and fluffy after some time. Which gas produced by yeast is responsible for making the dough rise?



- a) Oxygen
- b) Carbon dioxide
- c) Nitrogen
- d) Hydrogen

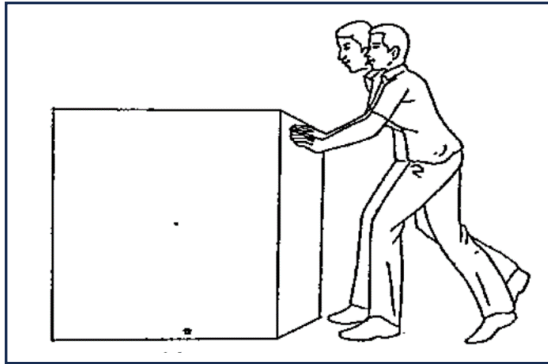
12. How do microbes help in cleaning the environment?

- a) By producing heat
- b) By reducing bad smell
- c) By making it solid
- d) By decomposing waste into simpler substances

13. How do vaccines protect the body against diseases?

- a) By giving the body extra vitamins.
- b) By raising body temperature.
- c) By helping the body make antibodies.
- d) By supplying extra energy to the body.

14. When two children push a heavy box in the same direction, what is the effect on the force applied?



- a) Force cancels out
- b) Forces add up, resulting in a greater force
- c) Force remains the same
- d) Force decreases

15. How does friction affect a rolling ball?

- a) It makes the ball go faster.
- b) It slows down the ball and eventually stops it.
- c) It only changes the ball's direction.
- d) It does not affect the ball.

16. What type of force makes a balloon stick to the wall after you rub it on your hair?

- a) Contact force
- b) Gravitational force
- c) Electrostatic force
- d) Frictional force

*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):** Farmers need to irrigate their fields more frequently in summer.

**Reason (R):** Higher temperatures in summer increase the rate of water evaporation from the soil and plants.

18. **Assertion(A):** The image created by a plane mirror is virtual.

**Reason(R):** Virtual images can be formed on a screen.

19. **Assertion (A):** Dry fruits and vegetables are sold nowadays in air-tight packets.

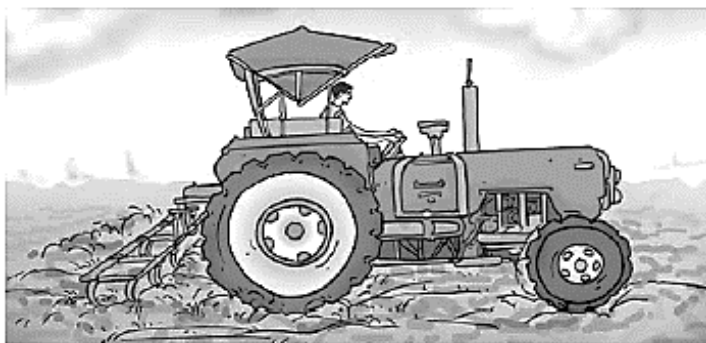
**Reason (R):** The sealed air-tight packets prevent the attack of microbes.

20. **Assertion (A):** The pressure at the bottom of the sea is less than that at the surface.

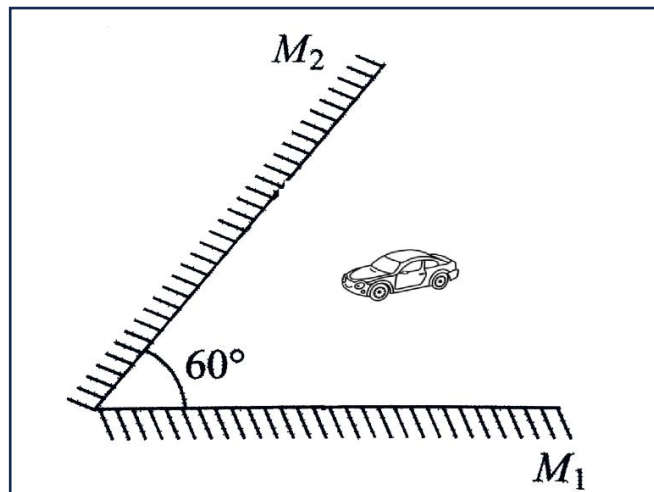
**Reason (R):** The pressure exerted by a liquid depends on the depth and the density of the liquid.

### **SECTION B (2X6=12)**

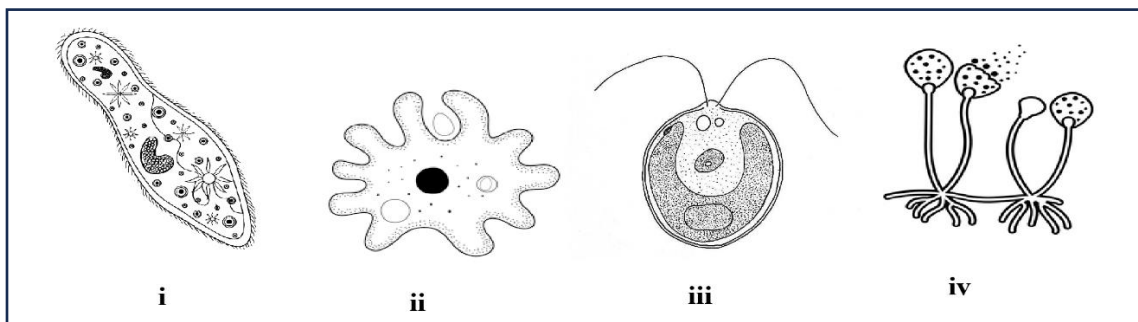
- 21. a) During a dry season, a farmer decides to implement drip irrigation. Explain how this can benefit his crops and conserve water.
- b) Weeds are competing with crops in a wheat field, affecting their growth. Suggest any two measures a farmer can adopt to manage and control weeds effectively.
- 22. a) When gram seeds are dropped into a bowl of water, some rise to the surface while others sink. Why does this happen?
- b) Identify the farm implement shown in the figure, which is attached to a tractor and used for ploughing the field. Also, give an advantage of this agricultural implement.



- 23. a) On which principle does a kaleidoscope work? Also, state any one of its applications.
- b) How many images of the toy car will be formed if two plane mirrors are inclined at  $60^\circ$ ?



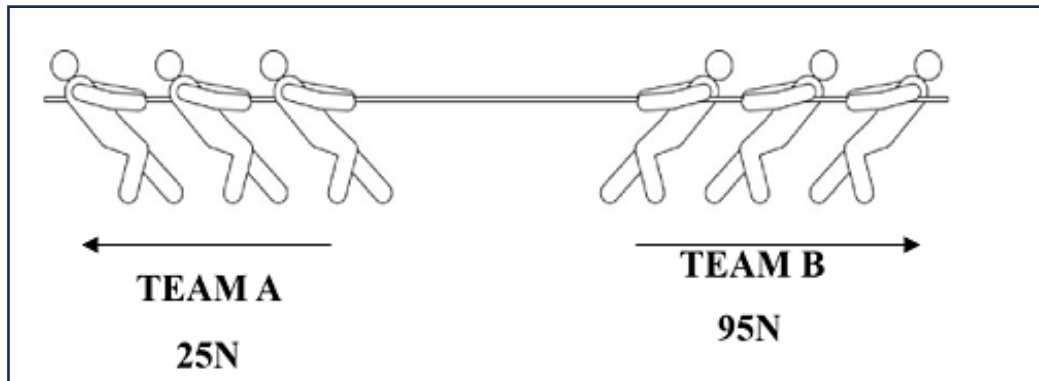
24. Explain how dead plants got converted into coal. What is carbonisation?
25. a) What is meant by the Red Data Book? Why is it important?  
 b) State any two main reasons for deforestation.
26. a) What are antibiotics? Give an example.  
 b) Identify the given microorganisms.



**SECTION C (3X7=21)**

27. a) Why should freshly harvested grains be properly dried before storage?  
 b) Distinguish between manure and chemical fertilisers by giving two points for each.
28. a) What precautions should a farmer take while using a sprayer to apply weedicides?  
 b) Explain why paddy is grown in the rainy season while wheat is grown in the winter season.  
 c) Why do farmers grow legumes in one season and wheat in the next season?
29. a) What are the functions of rods and cones in the eye?  
 b) Explain how we can see motion in a cartoon film, even though it is made up of still pictures.
30. a) Distinguish between exhaustible and inexhaustible resources with examples.  
 b) Why is burning fossil fuels harmful, and why should we use them carefully?

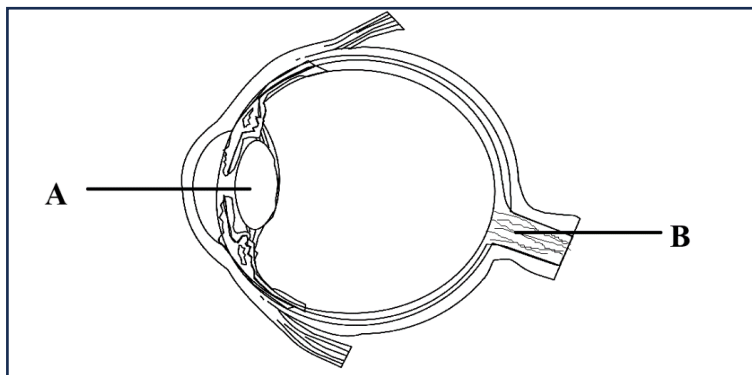
31. a) What was the main objective of Project Tiger, launched in 1973?  
 b) i) Define the term, Extinct species and state one example.  
 ii) How does paper recycling reduce deforestation?
32. a) Calculate the pressure produced by a force of 500 N acting on an area of 4 m<sup>2</sup>.  
 b) Why are school bags provided with broader straps instead of thin straps?
33. a) In a tug of war, Team A applies a 25 N force and Team B applies a 95 N force. Which team will win? What will be the net force acting on the rope?



- b) In the following situations, state the effect of the force in each case:  
 i) Moulding clay into different shapes  
 ii) A batsman hitting a ball.

#### SECTION D (5X3=15)

34. a) i) State one difference between regular and irregular reflection.  
 ii) Draw diagrams to show regular and irregular reflection.  
 b) Enlist any two ways to take care of our eyes.  
 c) Identify the parts marked in the given structure of the human eye:



35. a) What is meant by refining of petroleum?  
 b) Give reasons why CNG is preferred over wood as a fuel.  
 c) State one important use of coke obtained from coal.

- d) Mention one use of each of the following petroleum products:
- i) Kerosene
  - ii) Bitumen
  - iii) Petrol
  - iv) Paraffin wax.

36. a) i) What is meant by food preservation?  
ii) Name any two chemical food preservatives.
- b) What is pasteurisation of milk? How is it done and why is it important?
- c) Define fermentation. Give one example of a food produced by fermentation.

### SECTION E (4X3=12)

*Read the passage and answer the following questions.*

37. **A science teacher organises a visit to the Pachmarhi Biosphere Reserve for her students. As they walk around, the children appreciate the green wealth of the forest, seeing tall teak trees and various animals. The students learn that some animals and plants belong to specific areas; the plants and animals found in a particular region are called the flora and fauna of that area. Examples of flora in Pachmarhi include sal, teak, mango, jamun, silver ferns, and Arjun, while fauna includes chinkara, blue bull, barking deer, cheetal, leopard, wild dog, and wolf. They are also informed that protected areas are established where hunting, killing, and poaching of animals are strictly prohibited. Additionally, a Wildlife Sanctuary protects animals in their natural habitat, a National Park protects the entire ecosystem, including plants and landscapes, and a Biosphere Reserve is larger, conserving biodiversity along with the culture of local tribal communities.**

- i) What activities are strictly prohibited in protected areas?
- ii) Give one example each of flora and fauna found in the Pachmarhi Biosphere Reserve.
- iii) State the difference between the wildlife sanctuary and the national park.

38. **Ravi, a 12-year-old boy, fell sick with a high fever, shivering, and weakness. The doctor diagnosed that he was suffering from malaria. Malaria is caused by a protozoan called Plasmodium, which is carried by the female Anopheles mosquito. The doctor also advised Ravi's family on ways to prevent malaria in their surroundings. He suggested that they should use mosquito nets and repellents, spray insecticides, and, most importantly, stop the collection of stagnant water around the house to prevent mosquito breeding.**

- i) Name the protozoan causing malaria.
- ii) Which mosquito carries malaria parasites?
- iii) How can malaria be prevented in the surroundings? Suggest any two ways.

39. **Riya was curious about why balloons inflate and why air rushes out when the balloon's mouth is opened. She also noticed that a balloon with tiny holes could not be inflated, as the air leaked out. She pressed a rubber sucker on a smooth surface. It stuck tightly, and she needed effort to pull it off. This is because of the difference in internal and external air pressure. There is less air pressure inside than outside, so the outside air pressure pushes the surface of the rubber sucker towards the wall, making it difficult to pull. She learned that the air around us exerts pressure. Although atmospheric pressure is very large, our body does not get crushed since the pressure inside balances the pressure outside. Riya concluded that gases exert pressure on the walls of their containers. Atmospheric pressure is the force exerted by the air around us due to gravity. This pressure is useful in many daily-life situations, such as drinking through a straw and using a vacuum sucker to lift objects.**

- i) Why does a rubber sucker stick tightly to a smooth surface and become difficult to pull off?
- ii) Our body does not get crushed under atmospheric pressure. State the reason.
- iii) Mention any two applications where atmospheric pressure is involved.