	INDIAN SCHOOL AL WADI AL KABIR

MIDTERM (2023 - 24)

Class: VI   Sub: SCIENCE   Max Marks: 80

Date: 01.10.2023   Set - I   Time: 2 ½ hours

General Instructions:

i. All questions are compulsory. Marks are indicated against each section.

ii. The question paper comprises **09 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 only 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. Q34 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. Ink killer or whitener should not be used in the answer script.

xi. Diagrams should be drawn using a pencil.

SECTION A (1X20=20)

1. An individual consumes a diet rich in fats, carbohydrates and proteins but ignores to include an adequate amount of water. What will be the effect on the body if the individual continues with the same diet?
a) The body will suffer from deficiency diseases.
b) The body will eliminate all the nutrients from the body.
c) The body will reduce the output of sweat and urine.
d) The body will readily digest the consumed food.

2. A student takes some cold water in a beaker and dissolves two tablespoons of salt in it. When the student adds one more tablespoon of salt, it gets settled at the bottom of the beaker. The student warms the water and observes that the salt disappears. What can be the reason for this observation?
a) Heat increases the solubility of water.
b) Heat evaporates the excess salt in the solution.

c) After heating, the solution becomes saturated.
d) Heating will change the colour of the solution to red.

3. A student measures the length of the pencil using a broken ruler. The image shows the measurement by the broken ruler.
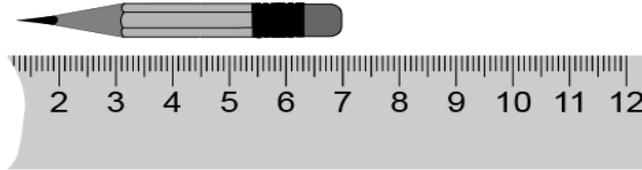
The student made an error and recorded the length of the pencil as 7 cm. How can this error be removed?
a) By measuring with the hand span.
b) By adding the initial and final reading.
c) By measuring the length from the end of the ruler.
d) By subtracting the initial reading from the final reading.

4. The image shows the process of winnowing.

On the basis of what property, the mixture gets separated in winnowing?
a) Temperature   b) Shape
c) Colour   d) Weight

5. Sam wants to build his muscles and thus joined a gymnasium for it. What changes should Roshan make in his diet to build strong muscles?
a) Eat more carbohydrate rich food.
b) Eat more vitamin rich food.
c) Eat more protein rich food.
d) Eat more fat rich food.

6. The process of settling down of heavier, insoluble components in a mixture is called-
a) Filtration   b) Sedimentation
c) Decantation   d) Evaporation

7. A process in which water comes out from the leaves in the form of water vapour is –
a) Radiation   b) Conduction
c) Venation   d) Transpiration

8. The table shows the various steps for the measurement of length using a ruler.

A	Place the zero mark of the ruler on the beginning point of the object.
B	Scale should be placed along the length of the table.
C	Observe the reading of the last mark on the ruler by maintaining correct eye position

Which option shows the correct order of steps to measure the length?
a) A, C, B
b) B, A, C
c) B, C, A
d) C, B, A

9. Pari conducted an experiment in which he filled a glass with one-third of the water. He added a drop of red ink into that glass and then stirred it for few minutes. After that, he made a cut at the base of the stem of a tender twig and then put it into the water as shown in the image.

This setup was left by the student overnight. What can be observed by the student on the next day?
a) Shedding of leaves from the stem.
b) Rise of the colour into the stems.
c) Development of fruits.
d) Development of more branches at the stem.

10. Which of the following type of plants have thick, hard and woody stem?
a) Trees   b) Herbs
c) Shrubs   d) All of these

11. The comparison of an unknown quantity with a known fixed quantity of the same kind is called-
a) Measurement
b) Units

c) Pace

d) Motion

12. Envelope of air that surrounds the earth is known as -

a) biosphere   b) atmosphere

c) ecosystem   d) environment

13. Which of the following gas is a supporter of burning?

a) Carbon dioxide   b) Nitrogen

c) Oxygen   d) Argon

14. The raw materials used to prepare a dish are called-

a) Pods   b) Apiculture

c) Protein   d) Ingredients

15. Which of the following is the fruit of a plant?

a) Green chilli   b) Broccoli

c) Onion   d) Potato

16. Read the following statements and identify the correct option.

Fibre A is used to make wicks for oil lamps.
Fibre B is obtained from the fleece of sheep.
Fibre C is not obtained from plant or animal sources.

a) Fibre A- Wool, Fibre B- Cotton, Fibre C- Synthetic fibre

b) Fibre A- Cotton, Fibre B- Synthetic fibre, Fibre C- Wool

c) Fibre A- Cotton, Fibre B- Wool, Fibre C- Synthetic fibre

d) Fibre A- Wool, Fibre B- Synthetic fibre, Fibre C- Cotton

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):** We eat the leaves of spinach.

     Reason (R): All food items have three ingredients.

18. **Assertion (A):** It is possible to separate salt and water from salt solution.
    Reason (R): Salt can be obtained by evaporation method and water can be obtained by condensation method.

19. **Assertion (A):** The stem conducts water from roots to leaves and food from leaves to other parts of the plant.
    Reason (R): The stem bears leaves, flowers and fruits.

20. **Assertion (A):** The standard system of units is called the SI system.
    Reason (R): The SI unit of length is a kilometre.

SECTION B (2X6=12)

21. Mention any **two** importance of food for living organisms.

22. a) What is decantation?
    b) Where is it used?

23. a) Define Photosynthesis.
    b) State **any one** function of the root.

24. a) Observe the pictures given below and write down the type of motion exhibited by each.

A   B

   b) Why can a pace or a footstep not be used as standard units of length?

25. a) **Identify** and **write** one symptom of the disease shown below.
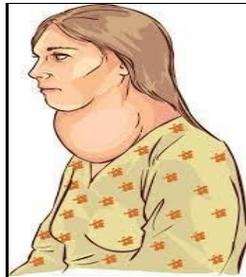
b) Food should not be overcooked. Give **one** reason.

26. Why is it necessary to include roughage-containing food in our diet? Give any two reasons.

SECTION C (3X7=21)

27. a) What do you mean by sprouting?
b) Differentiate between herbivores and omnivores. Give one example of each.

28. a) Why do policemen regulating traffic at a crowded crossing often wear a mask?
b) The composition of air is given below. Draw a pie chart representing the various percentages of these gases.

GASES	PERCENTAGE
NITROGEN	78 %
OXYGEN	21 %
OTHER GASES	1 %

29. a) Write any **one** function of the flower.
b) Draw and label parts of a stamen.

30. a) Convert the following-
   i) 23 km = _____m
   ii) 747 cm = _____ mm

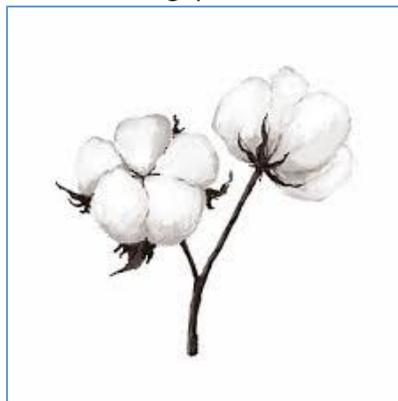b) Give the unit for measuring the following-
   i) Distance between Delhi and Mumbai.
   ii) Length of your shoelace.
   iii) Thickness of a coin.
   iv) Length of your eraser.

31. Observe the picture and answer the following questions-

a) Name the given plant.
b) Which part of the plant gives us fibre?
c) Mention the type of soil and climate which is suitable for growing this plant.
d) Write any **two** uses of this fibre.

32. Suneer was having difficulty in seeing things in dim light. The doctor tested his eyesight and prescribed a particular vitamin supplement. He also advised him to include a few food items in his diet.
a) Which deficiency disease is he suffering from?
b) Which food component may be lacking in his diet?
c) Suggest any two food items that he should include in his diet.

33. a) Why do we need to separate different components of a mixture? Give **two** reasons.
    b) **Identify** and **explain** the method of separation shown in the picture given below**.**


SECTION D (5X3=15)

34. a) A tailor does not use a scale to take our body measurements, he uses a measuring tape. Why?
    b) **Differentiate between** rest and motion.
    c) Explain the thread method to measure a curved line.

35. Observe the figure and attempt the questions that follow it.
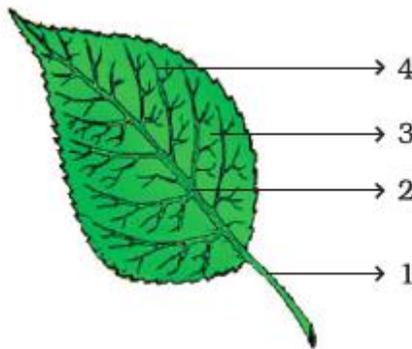
a) Label the parts 1, 2, 3 and 4 in the diagram.
b) **Identify** and **explain** the type of venation shown in the figure.
c) If a plant has fibrous root, what type of venation are its leaves likely to have?

36. a) In the figure given below, the candle is burning in case of A and not in B. Give reason.
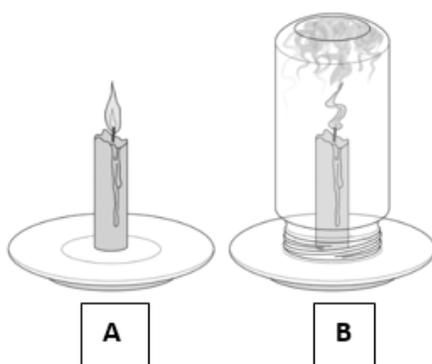
b) Why do you feel suffocated in a closed room, where some material is burning?
c) State the use of a weather cock.

SECTION E (4X3=12)

37. The fibres of some fabrics such as cotton, jute, silk and wool are obtained from plants and animals. These are called natural fibres. Cotton, jute and coir are examples of fibres obtained from plants. Jute fibre is obtained from the stem of the jute plant. It is cultivated during the rainy season. In India, jute is mainly grown in West Bengal, Bihar and Assam. The jute plant is normally harvested when it is at flowering stage. The stems of the harvested plants are immersed in water for a few days. The stems rot and fibres are separated by hand. To make fabrics, all these fibres are converted into yarns. The strong threads made from jute fibre are used in making sacks for packing and storing grains.

a) In which season, jute is cultivated?
b) At which stage, jute plant is harvested?
c) Why are the stalks of the jute plant soaked in water for a few days?

38. Some solid particles are insoluble in water. For example-dust particles, chalk powder, sand, tiny pieces of straw etc. To separate this type of particles, we use different methods. The method of separating insoluble components from the mixture using a filter is called filtration. In this method, a solution is passed through a filter. The filter allows the liquid to pass through and retains the solid particles. The solid particles retained by the filter are known as residue. The clear liquid collected after the filtering process is called filtrate. The filter used may be a filter paper, a fine muslin cloth, a fine mesh or other porous particles.

a) Write two examples of solid particles which are insoluble in water.
b) What is filtration?
c) Define residue and filtrate.

39. Air is essential for all living beings. It supports life on earth. Air contains oxygen and nitrogen as its major constituents of air. These gases retain their properties in air. So, the air is called a mixture. Plants and animals help each other in the exchange of gases in the atmosphere. Plants take carbon dioxide to prepare food and release oxygen during daytime. This oxygen is taken in by animals and carbon dioxide is released. Thus, plants and animals help in maintaining balance of oxygen and carbon dioxide. This shows the interdependence in plants and animals. Windmill is used to draw water from tube wells and to run flour mills. Windmills are also used to generate electricity.

a) Why is air considered as a mixture?
b) State any one use of windmill.
c) How does nature help in maintaining the balance of carbon dioxide and oxygen in the atmosphere?

ANSWER KEY					
1.	2.	3.	4.	5.	6.
(c) The body will reduce the output of sweat and urine. (1)	(a) Heat increases the solubility of water. (1)	(d) By subtracting the initial reading from final reading. (1)	(d) Weight. (1)	(c) Eat more protein rich food. (1)	(b) Sedimentation (1)
7.	8.	9.	10.	11.	12.
(d) Transpiration (1)	(b) B, A, C (1)	(b) Rise of the colour into the stems (1)	(a) Trees (1)	(a) Measurement (1)	(b) Atmosphere (1)
13.	14.	15.	16.		

			(c) Fibre A- Cotton, Fibre B- Wool, Fibre C- Synthetic fibre (1)		
(c) Oxygen (1)	(d) Ingredients (1)	(a) Green chilli (1)			

17. iii) A is true but R is false. (1)

18. i) Both A and R are true and R is the correct explanation of the assertion. (1)

19. ii) Both A and R are true but R is not the correct explanation of the assertion. (1)

20. iii) A is true but R is false. (1)

21. Organisms need food because (i) Food gives energy to do work. (ii) Food helps the body to grow and to repair damaged parts. (iii) Food helps to protect the body against diseases. (Any 2) (1+1)

22. a) Decantation is the process of pouring out the liquid without disturbing the sediment.

   b) It is used to separate insoluble solids or liquid from liquid   (1+1)

23. a) Photosynthesis is the process by which leaves prepare food (glucose) for the plant using carbon dioxide and water in the presence of sunlight and a green coloured substance present in them. (1)

   b) i) Roots absorb water and minerals from the soil.

      ii) Roots help in holding the plant firmly in the soil.

      iii) Roots prevent soil erosion. [Any one] (1)

24. a) A- Rectilinear motion   B- Periodic motion.   (½+ ½)

   b) Pace or a footstep cannot be used as a standard unit of length because it varies from person to person. (1) 25. a) Goitre.Glands in the neck appear swollen (1)

   b) The essential nutrients like vitamin C will get destroyed on heating/ Taste of the food will be affected.

      [Any 1 point] (1)

26. i) It adds bulk to our food.

   ii) It helps our body to get rid of undigested food. (1+1)

27. a) When seed begin to grow or germinate by developing white coloured tiny roots on them, they are called sprouts. This method of making sprouts from seeds is called sprouting. (1)

b)

Herbivores		Omnivores
Animals which eat only plants and plant products are called herbivores.		Animals which eat both plants and animals are called omnivores.
Example: Cow, Deer, Elephant		Example: Dog, Human, Bear

(2)

28. a) Wearing a mask at a crowded crossing saves the policemen from harmful smoke and dust particles emitted by vehicles, which may enter their nose. (1)


Relative composition of air
78% Nitrogen
1% Other
21% Oxygen
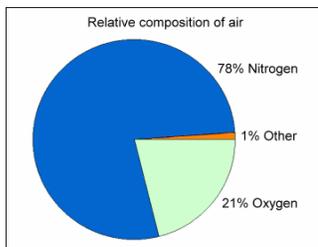
b)   Diagram, labelling (1+1)

29. a) i) Flower is used for reproduction and results in the formation of fruits and seeds. Seeds

on germination give rise to new plants.

ii) It is the source of food for many insects.

iii) Flowering plants are grown in gardens and in homes because of the bright colour and fragrance of

the flowers. Therefore, they beautify the surroundings and provide aesthetic value.

[Any 1] (1)

Anthers
Filament
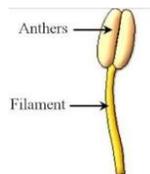
b)   Diagram, labelling (1+1)

30. a) i) 1 km=1000 m, Thus 23 km = 23 x1000 = 23000 m.
ii) 1 cm = 10 mm, Thus 747 cm = 747 x 10 mm = 7470 mm.   (½*2=1)

b) i) Kilometre ii) Centimetre   iii) Millimetre   iv) Centimetre (½*4=2)

31. a) Cotton plant. (1/2)
b) Fruit.(1/2)
c) Black soil and warm climate.(½ + ½)

d) Cotton fibre is used for making fabrics, making wicks for oil lamps, and filling mattresses or pillows or
    quilts. (1)

32. a) Loss of vision/Night blindness.(1)
    b) Vitamin A (1)
    c) Carrot, papaya, pumpkin. [Any 2] (½+ ½)

33. a) i) To remove impurities or harmful components.
        ii) To remove non-useful components.
        iii) To separate two different, but useful components. (Any 2) ((½+ ½)
    b) Handpicking. The method in which components in a mixture can be separated by just picking them out
        with the help of the hand from the mixture is known as the hand-picking method. (1+1)

34. a) Some parts of our body are not straight like the chest, and waist. Measuring tape is convenient as it can   bend easily and give correct measurements of such body parts. (1)
    b) Rest- An object that does not change its position with time, relative to its surroundings, is said to be at rest.
        Motion- An object that changes its position with time, relative to its surroundings, is said to be in motion.

    (2)
    c) i) Take a string and put a mark at one of its ends.
        ii) Placed the marked end of the thread at the beginning of the curved line. Press it down with your
            thumb and keep tracing the entire length of the curved line.
        iii) Thread should be held carefully and marked properly. Mark the end point.
        iv) Stretch the thread and measure its length between the two marks using a ruler. It gives the length of
            the curved line.   (2)

35. a) Part 1 – Petiole, Part 2 – Midrib, Part 3 – Lamina, Part 4 – Veins. (½*4=2)

    b) The leaf has reticulate venation. In this type of venation main vein runs through the center giving rise

        to several smaller veins. (2)

    c) The leaves will have parallel venation. (1)

36. a) In situation A, candle is in direct contact with oxygen which is a supporter of burning. In situation B, the

        inverted jar cuts the supply of oxygen to the candle, hence it stops burning. (2)

    b) We feel suffocated in a closed room if some material is burning there, because burning causes excess

carbon dioxide and its accumulation causes suffocation. (2)

c) Weather cock shows the direction in which air is moving at that place. (1)

37. a) Jute is cultivated during the rainy season. (1)

b) The jute plant is normally harvested when it is at flowering stage (1)

c) The stems of the harvested plants are immersed in water for a few days. The stems rot and fibres are

separated by hand. (2)

38. a) Dust particles, chalk powder, sand, tiny pieces of straw.[Any 2](½+½)

b) The method of separating insoluble components from the mixture using a filter is called filtration. (1)

c) The solid particles retained by the filter are known as residue. The clear liquid collected after the filtering   process is called filtrate.(1+1=2)

39. a) Air contains oxygen and nitrogen as its major constituents of air. These gases retain their properties in air.

So, the air is called a mixture. (1)

b) Windmill is used to draw water from tube wells and to run flour mills/ Windmills are also used to generate

electricity. [Any 1] (1)

c) Plants take carbon dioxide to prepare food and release oxygen during daytime. This oxygen is taken in by

animals and carbon dioxide is released. Thus, plants and animals help in maintaining balance of oxygen

and carbon dioxide.(2)