Indian School Al Wadi Al Kabir

Midterm Examination (2024-2025)

Class: VI | Sub: Science | Max. Marks: 80

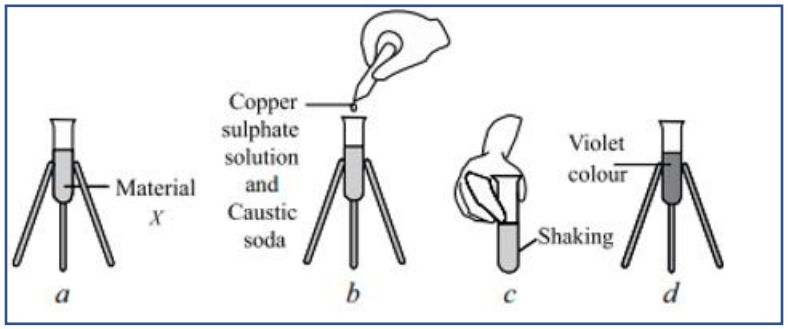
Date: 26/09/2024 | Set - II | Time: 2 ½ Hours

General Instructions:

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 and 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** are Assertion and Reason type questions and 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** are Case study/Paragraph Questions and carry FOUR marks each.*
ix. Write the same question number as given in the question paper.
x. Whitener should not be used in the answer script.
xi. Diagrams should be drawn using a pencil.

SECTION A (1×20=20)

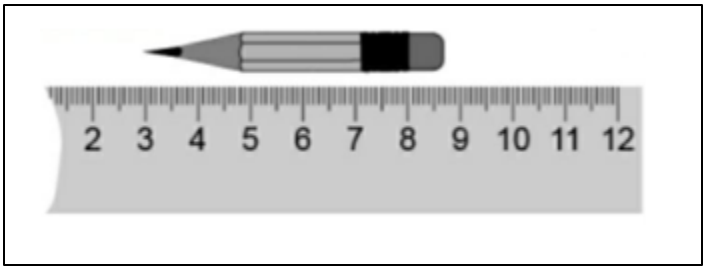
1. Observe the given experimental figures carefully.



What does this experiment prove?
a) Material X contains starch.
b) Material X contains protein.
c) Material X contain fats.
d) Material X contain carbohydrates.

2. The nature of the stem, the category of the plant and name of the plant are correctly joined in:
a) Weak stem that climbs on a support: Climber - Banyan tree
b) Thick, hard and woody stem: Shrub - Grapevine
c) Green, soft and tender stem: Herb - Mint
d) Hard and woody stem: Tree - Tulsi

3. While measuring the length of a pencil, the reading of the scale at one end is 3cm and that at the other end is 8.7cm as in the figure given below. The length of the pencil is:

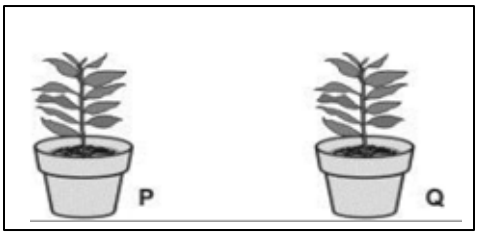


a) 5.7 cm.
b) 11.7 cm.
c) 8.7 cm.
d) 8.5 cm.

4. When sugar is added to water, it dissolves to form a solution. Identify the solute and the solvent in this case.
a) Sugar is the solvent while water is the solute.
b) Both sugar and water are solutes.
c) Sugar is the solute while water is the solvent.
d) Both sugar and water are solvents.

5. Which among the following major nutrients in food, provide energy for carrying out various functions of our body?
a) Proteins and Minerals
b) Carbohydrates and Fats
c) Roughage and Water
d) Carbohydrates and Proteins

6. Rahul wants to find out whether plants need water for their growth. He takes two pots P and Q with identical plants. What should he do for the next few days?



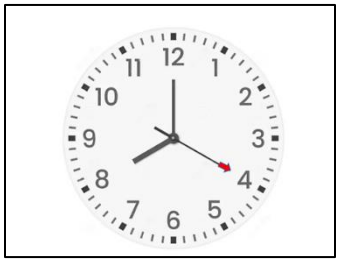
a) Keep P in sunlight and Q in dark.
b) Water only P and not Q.
c) Water both P and Q equally.
d) Uproot the plants and check the growth of roots.

7. The Chipko movement, an environmental initiative in India was mainly aimed to:
a) conserve rainwater.
b) protect trees.
c) control pollution.
d) reduce usage of fossil fuels.

8. The comparison of an unknown quantity with a known quantity is called:
a) unit.
b) handspan.
c) measurement.
d) distance.

9. Bhoomi is suffering from tooth decay and bleeding gums. Which of the following nutrients in food would help her recover?
a) Calcium and Vitamin C
b) Vitamin A and Calcium
c) Iodine and Vitamin D
d) Vitamin B and Iron

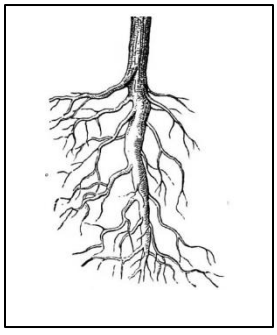
10. Observe the thick tip of the seconds hand of the given clock. Which of the following types of motion will be exhibited by the tip of the seconds hand of this clock?



a) Linear motion and Periodic motion
b) Rotational motion and Linear motion
c) Periodic motion and Circular motion
d) Circular motion and Linear motion

11. The method of separation used to separate the unwanted stones from a sample of pulses is:
a) Threshing.
b) Winnowing.
c) Sieving.
d) Handpicking.

12. Which of the following statements hold true for the root system shown in the given figure?

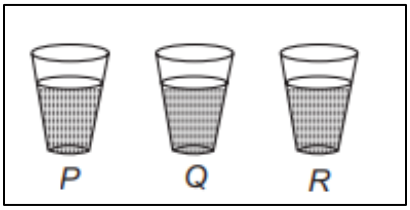


i. It is a fibrous root system.
ii. The branches that arise from the main root are called fibrous roots.
iii. It is a taproot system.
iv. Examples of this type of root system are pea, radish, carrot and turnip.

a) i and iii only
b) ii and iv only
c) iii and iv only
d) ii and iii only

13. A cleaner and less polluting domestic fuel used for cooking is:
a) coal.
b) wood.
c) dung cake.
d) Liquefied Petroleum Gas.

14. Three glasses P, Q and R having equal amount of water were taken and equal amount of salt was added to each one of them. After that, P was cooled, Q was heated and R was left undisturbed. Which glass will have more salty water?



a) P
b) Q
c) R
d) Both P and R

15. The source of energy used by plants during the process of photosynthesis is:
a) oxygen.
b) carbon dioxide.
c) water.
d) sunlight.

16. The height of a student in Class VI is 143 cm. His height in mm is:
a) 1.43 mm.
b) 14.3 mm.
c) 1430 mm.
d) 143 mm.

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): The International system of standard units is called the SI system.
Reason (R): The SI unit of length is kilometre.

18. Assertion (A): Leaves are generally green in colour.
Reason (R): Leaves are green in colour due to the presence of chlorophyll.

19. Assertion (A): Avoid washing of vegetables and fruits after cutting and peeling.
Reason (R): It will lead to loss of some vitamins.

20.Assertion (A): Sieving is used for separating components of a mixture on the basis of their particle sizes.
Reason (R): Sieving is done with the help of wind.

SECTION B (2×6=12)

21. a) **Define** sedimentation.

b) How is common salt obtained from sea water?

22. **Give reasons**:

a) Protein requirement of children is more than that of adults.

b) Our body will not function without sufficient water.

23. a) What is linear motion? Give an **example**.

b) **Identify** and **define** the type of motion given in the figure.

24. a) How is soil formed?

b) Write the **uses** of the following rocks:

i) Laterite ii) Marble

25. What does a tailor use to take the body measurements, a scale or a measuring tape?

Justify your answer.

26. **Draw** and **label** the parts of a leaf.

SECTION C (3×7=21)

27. a) The stem of a plant can be compared to a street with two-way traffic. **Why?**

b) How do you identify the root system of a plant without pulling it out of the soil?

28. a) **Differentiate** between miscible and immiscible liquids.

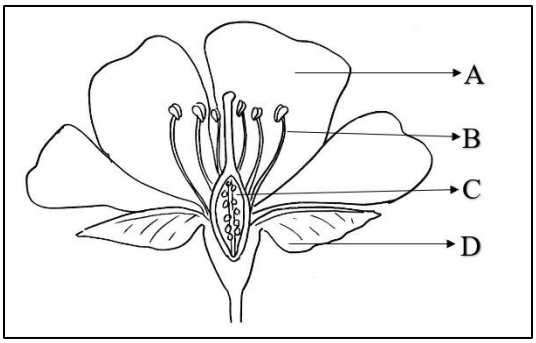
b) How will you separate water from petrol/oil?

29. a) Convert 75 **km** into **m**.

b) State any **two** precautions to be observed while measuring length with the help of a metre scale.

30. a) Name the **type of roots** found in grass. **Draw** a neat diagram of the root system in grass.

b) **Identify** and **label** the parts **A, B, C** and **D** of the given flower.



31. a) What is meant by the term saturated solution?

b) Write the difference between soluble and insoluble substances with **examples**.

32. a) What is the importance of rainwater harvesting?

b) What are the consequences of cutting a large forest area? Give **two** points.

c) Mention **two** ways to reduce air pollution.

33. a) **Define** the term balanced diet.

b) Why is it necessary to include roughage in our diet?

c) Give **two** examples of food rich in dietary fibres.

SECTION D (5×3=15)

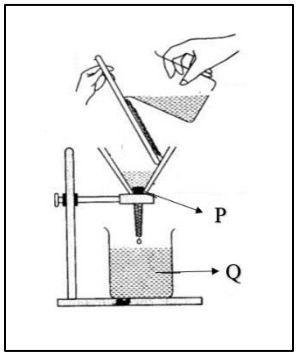
34. a). **Distinguish** between renewable and non-renewable resources.

b) **Identify** and **sort** the following resources as renewable or non-renewable:

Water, Natural gas, Forests and Minerals.

c) Name **any one** application of solar energy. How is it **useful** to us?

35. Observe the given figure and answer the questions.



a) **Identify** and **define** the given process.

b) **Label** the parts marked **P** and **Q** and **define** them.

c) Where is this method used? Write **an example.**

36. a) What is obesity? What does it **lead to**?

b) Mention the **symptoms** of disease caused due to the deficiency of **iodine** in the diet.

c) Write the **names** of deficiency diseases caused when the diet lacks in:

i) Vitamin B1 ii) Iron

SECTION E (4×3=12)

Read the following case study/paragraphs and answer the questions given below.

37.

Transpiration is the process by which plants lose water in the form of water vapour. It cools down the plant when the weather is hot and helps the plant to absorb water and minerals from the soil. Transpiration is very important for maintaining moisture conditions in the environment. 10% of the moisture in the Earth's atmosphere is from transpiration of water by plants. The process of transpiration is being demonstrated with leaves of plants and polythene bags. Water droplets are seen on the inner surface of the bag due to transpiration and condensation process. Plants release water vapour into the air through transpiration. When the water vapour touches the polythene bag, it condenses to form droplets of water inside the bag. The activity will show better results on a bright sunny day because the rate of transpiration increases in the presence of sunlight.

(i) Define transpiration.

(ii) What will you observe in the polythene bag after a few hours of setting up the activity?

(iii) How is the process of transpiration helpful to the plant?

38.

Petrol and diesel are the two most widely used fuels for vehicles. Petrol, diesel and kerosene are obtained from petroleum. Petroleum along with natural gas and coal are commonly called fossil fuels. They are formed essentially from the remains of microorganisms and plants that got buried deep inside the earth, and were converted to petroleum, natural gas and coal. It takes millions of years for these fuels to form. Natural gas is used for cooking and generating electricity. Nowadays, it is also used in the form of Compressed Natural Gas as a fuel for vehicles. It is a cleaner fuel and does not give smoke and harmful gases when burnt. Coal is mainly used for the production of electricity. Fossil fuels are found in limited quantities. Hence, we will soon run out of fossil fuels if we continue to use them in the manner that we currently do. To avoid such a situation, we need to explore alternative sources of energy such as solar energy, wind energy and tidal energy.

(i) How are fossil fuels formed?

(ii) Mention two alternative sources of energy.

(iii) What is CNG? What is its advantage over other fuels?

39.

The length of the space between two points (or two places) is called distance. When distance is stated with respect to a fixed object or point, this point is called a reference point. The reference point is important in deciding whether an object is at rest or in motion. An object is said to be in motion if its position changes with respect to the reference point with time. If an object is not changing its position with respect to the reference point with time, it is said to be at rest. Motion and rest are sometimes relatable. When we see the trees from a moving train, their position changes with respect to us. Hence, they appear to be moving. On the other hand, the position of co-passengers is not changing with respect to us, hence they appear to be stationary.

(i) What is distance?

(ii) What is the importance of reference point?

(iii) Differentiate between a body in motion and a body at rest.