

Fill in the blanks:

1. You need _____ cylinders while trekking in high altitudes.
2. The largest component of air is _____, which is 78% by volume.
3. Fishes have special organs called _____ to absorb _____ from air dissolved in water.
4. The layer of air that surrounds the earth is called _____.
5. Contamination of air by undesirable substances is known as air _____.

State true or false. Correct the false statement.

1. Animals that live under the soil do not need oxygen for survival.
2. Both nitrogen and oxygen support burning.
3. Cockroach respire through moist skin.
4. Air has a fixed percentage of water vapour.
5. Oxygen is added to the atmosphere by respiration.

Match the following:**Column A**

- (a) Ozone
- (b) Carbon dioxide
- (c) Oxygen
- (d) Insects
- (e) Fish

Column B

- (i) Global warming
- (ii) Spiracles
- (iii) Gills
- (iv) moist skin
- (v) Supports burning
- (vi) Ultraviolet rays

Answer in one or two sentences (One mark questions)

- Q1. Why do we find droplets on the outer walls of the glass when ice cold water is poured in it?
- Q2. Why do earthworms come out only during the rainy season?
- Q3. Why do the roots of mangrove plants bend upwards and come out of the soil as the plant grow up?
- Q4. How does breathing takes place in the following?
(a) Cockroach (b) Earthworms (c) Salamander (d) Hydrilla

Short answer questions (Two mark questions)

- Q1. Cotton wool is light and fluffy but when some water is dropped on it, it shrinks. Explain
- Q2. Is it good to sleep under a tree at night? Why?
- Q3. Burning of fuels use up oxygen from the air, yet the quantity of oxygen in air remains constant. How does that happen?
- Q4. Garima observed that when she left her tightly capped bottle full of water in the open sunlight, tiny bubbles were formed all around inside the bottle. Help Garima to know why it so happened?
- Q5. Paheli kept some water in a beaker for heating. She observed that tiny bubbles appeared before the water started to boil. She boiled the water for about 15 minutes and filled it in a bottle up to the brim and kept the bottle air tight till it cooled down to room temperature.
(a) Why did the tiny bubbles appear even before the water started boiling?
(b) Do you think tiny bubbles will appear on heating the water taken out from the bottle? Justify your answer.

Three mark questions

- Q1. What are the effects of air pollution on plants and animals?
- Q2. Explain how air supports life. Give examples.
- Q3. How can you show that an empty glass is not really empty but filled with air?
- Q4. Explain the following observations very briefly
(a) Breathing through mouth may harm you.
(b) A firki does not rotate in a closed area.
(c) An empty glass in fact is not empty.

Answer in one or two sentences (One mark questions)

- Q1. Magnetic force can be exerted only on certain substances. What are these substances?
Q2. A pencil sharpener is attracted by a magnet, even though its body is made of plastic. Can you think of one reason why this happens?
Q3. What is the correct way of storing bar magnets?
Q4. Where are the poles of horseshoe magnet located?
Q5. Draw a diagram to show magnetic field lines of a bar magnet.

Short answer questions (Two mark questions)

- Q1. What do you mean by the 'directional property' of a magnet?
Q2. Differentiate between magnetic and non-magnetic substances with example.
Q3. What would happen to the poles of a bar magnet if the magnet was broken into two pieces?
Q4. A carpenter was working in Reena's house. He dropped his box of nails on to a heap of wood shavings. Reena was able to help him collect the nails easily and quickly. What do you think she did?
Q5. Given an odd-shaped magnet, how will you find its poles?

Long answer questions (Three mark questions)

- Q1. Why is it said that 'repulsion is the sure test of a magnet'?
Q2. If you have a bar magnet how will you convert an iron nail into a magnet?
Q3. Explain how magnets get demagnetized. Suggest any two ways to prevent this from happening.
Q4. Which of the following things will be attracted to magnet and which will not?
A strip of aluminium foil, a glass, a brass screw, a piece of copper wire, an iron nail and paper pins
Q5. Explain how one can find directions using a magnetic compass.

Match the following:**Column A**

1. Aluminium
2. Nickel
3. Like poles
4. Unlike poles
5. Magnetic compass

Column B

- (a) Magnetic
- (b) attract
- (c) do not attract
- (d) Non-magnetic
- (e) helps to find direction
- (f) Temporary magnet

State true or false. Correct the false statements.

1. Circular shaped magnets do not have poles.
2. Like poles of magnets when brought together attract each other.
3. ATM cards have a strip of magnetic material that stores information.
4. Permanent magnet quickly lose their magnetic property if the influence of strong magnet is removed.
5. Bar magnets should be stored with a piece of soft iron.

