

BCM SCHOOL BASANT AVENUE DUGRI LUDHIANA

CLASS VII

SUBJECT -SCIENCE

Answer key

Tick the correct option

1. (a) Burning of paper
- 2.(d) Carbon dioxide
- 3.(c) Light rays travel in straight lines
4. a) Both A and R are correct and R is the correct explanation of A
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6. Bar screens trap and remove large solids (rags, sticks, plastics, etc.) from incoming sewage, protecting pumps and downstream equipment from clogging or damage
7. Copper is chosen for electrical wires because it's an excellent conductor of electricity (low resistance lets current flow with minimal energy loss). It's also ductile, so it can be drawn into thin, flexible wires without breaking, and it resists corrosion, keeping connections reliable over time.
8. When baking soda (sodium bicarbonate) is mixed with lemon juice (citric acid), you see bubbles of carbon dioxide gas forming. This is a chemical change because a new substance (CO₂) is produced, and the reaction isn't easily reversed .
9. 1. Take about 100 ml of water in a beaker.
2. Add a few drops of sulphuric acid to it and heated nearly to boiling.
3. Add powdered copper sulphate slowly into the hot water with constant stirring until no more copper sulphate can be dissolved.
4. Filter the hot water and collect the filtrate.
5. Allow the Filtrate to cool, let it stand undisturbed overnight.
6. Crystals of copper sulphate can be seen at the bottom of the beaker.
7. Decant the Solution left behind and collect the blue Crystal on filter paper,

10. Case Study.

(a) Yeast feeds on sugar and produces *carbon dioxide (CO₂) gas* through fermentation. This gas gets trapped in the dough, making it expand and rise.

(b) During fermentation, yeast also produces *alcohol and organic acids* (like lactic acid and acetic acid). These give the dough its sour smell.

(c) Sugar acts as food for the yeast. It helps the yeast grow and ferment faster, producing more CO₂ and making the dough rise better.

(d) In the cold, yeast activity slows down a lot. The dough would rise very slowly or not at all, and it wouldn't develop a strong sour smell. Refrigeration is often used to delay fermentation, not stop it completely.