B.K. BIRLA CENTRE FOR EDUCATION

SARALA BIRLA GROUP OF SCHOOLS
A CBSE DAY-CUM-BOYS' RESIDENTIAL SCHOOL

PRE- MIDTERM (2025-26)

SCIENCE

Class: VIII | Duration: 1 Hr

Date: /08/2025 | Max. Marks: 25

ANSWER KEY

Section A

1. **(b).** 1
2. (d) Wet marble floor 1
3. (c) 1

Section B

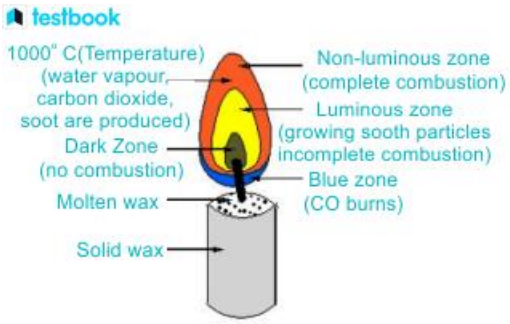
4. Fuel: A substance that can be burned, such as wood, paper, or gasoline, is necessary. 2
   Supporter of Combustion: Oxygen is the most common supporter of combustion, enabling the fuel to burn.
   Heat: The fuel and oxygen mixture must be heated to a temperature high enough to initiate the combustion reaction, known as the ignition temperature.
5. Rapid combustion. ½ + ½ + ½ + ½ =2 2
   Spontaneous combustion
   Explosion
   Slow combustion
6. Frictional force is a force that opposes the relative motion of two surfaces in contact. When an object is sliding from east to west, the frictional force acts in the opposite direction, which is from west to east. 2
7. This is because friction is directly proportional to the force pressing the two surfaces together (in this case, the carpet and the floor). With only one person, the total weight is less, leading to less friction and making it easier to pull. When four people are sitting, the increased weight results in greater friction, requiring more force to move the carpet. 2

8. **(**a) Similarity 2
   - Both can possess a cell wall

   (b) Difference
   - Cellular organization and complexity
     - Bacteria are prokaryotic whereas, Algae are eukaryotic.

Section C

9. (a) The ignition temperature is the minimum temperature a substance must reach for it to catch fire and start burning. 3



Candle Flame

10. Static friction is the force that prevents a stationary object from starting to move, while sliding friction (also known as kinetic friction) is the force that opposes the motion of an object already in motion. In simpler terms, static friction acts on objects at rest, and sliding friction acts on objects that are moving 3
Examples : A book kept on a Table ,Skis sliding in snow.

11. **1. Starter and fermentation** 3
When you add a little curd (which contains lactobacilli) to warm milk, these bacteria multiply and **ferment lactose**, the sugar in milk, turning it into **lactic acid.**
2. Acidic environment & coagulation
The build up of lactic acid lowers the milk's pH to around **4**, making it acidic. This causes the milk protein **casein** to **coagulate**—that means it clumps together—forming the thick part called curd.
3. Texture and taste
Because of protein coagulation, the curd becomes **firm in texture** and tastes **slightly sour**, which are the key changes in curd formation .

12. **1. Cashews (Dry Fruits & Nuts)** 3
- **Vacuum-sealing or airtight storage + Refrigeration/Freezing**
  Remove air and store in a sealed bag or jar; chill or freeze them.

2. Chillies
- **Sun-drying or dehydrating**
  Spread clean, dry chillies under the sun or in a dehydrator to **remove moisture**, preventing bacterial/fungal spoilage.
- **Freezing fresh chillies**
  Freeze in airtight bags to **stop microbial growth**.

3. Chicken
- **Refrigeration (short-term)**
  Keep raw chicken well-wrapped in the refrigerator (0–5 °C).
- **Freezing (long-term)**
  Freeze tightly sealed chicken at –18 °C.

4. Milk
- **Pasteurization + Refrigeration**
  Heat milk to ~72 °C for 15 seconds (pasteurization) to **kill pathogens**, then refrigerate.