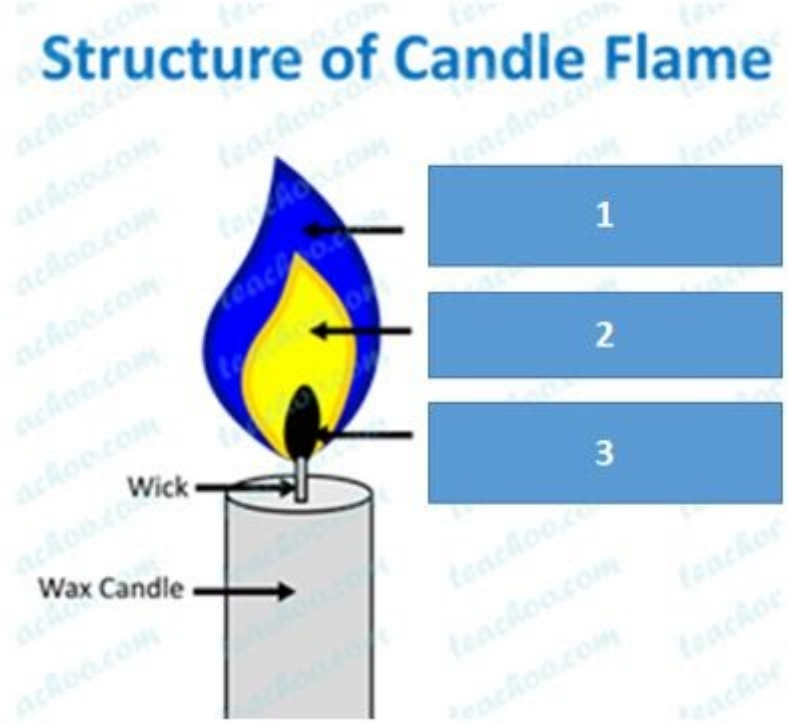
DELHI PUBLIC SCHOOL, MIYAPUR

Chemistry

Roshni has studied the different zones of candle flames. Please answer the following questions based on the picture shown below (question number 9 and 10).



9. The zones to be mentioned in box 1, 2 and 3 are _____.

- A) 1-luminous, 2-non luminous 3- dark
- B) 1-non-luminous, 2-luminous, 3-dark
- C) 1-dark 2-luminous, 3-non luminous
- D) 1-dark 2-non-luminous, 3-luminous

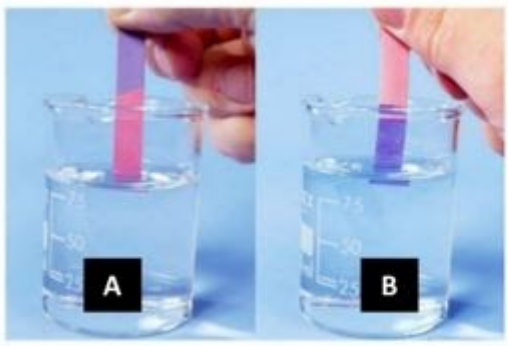
Clear selection

10. Which of the following options mentioned about the zone to be named in Box-3 is NOT correct?

- (●) A) It is named as a zone of low-combustion.
- ( ) B) The flame in this zone appears greyish-black
- ( ) C) It does not receive oxygen from air
- ( ) D) It is the least hot zone

Clear selection

11. Rehan has taken two beakers A and B. He wants to test the chemical nature of the solutions. Roshni has given him a strip which changes its colour to RED when dipped in beaker A and BLUE when dipped in beaker B.



Identify the chemical nature of the solutions.

- (●) A) Beaker A is acid, Beaker B is Base.
- ( ) B) Beaker A is base, Beaker B is Acid.
- ( ) C) Beaker A is a strong acid, Beaker B is weak acid
- ( ) D) Beaker A is a strong base, beaker B is weak Base.

Clear selection

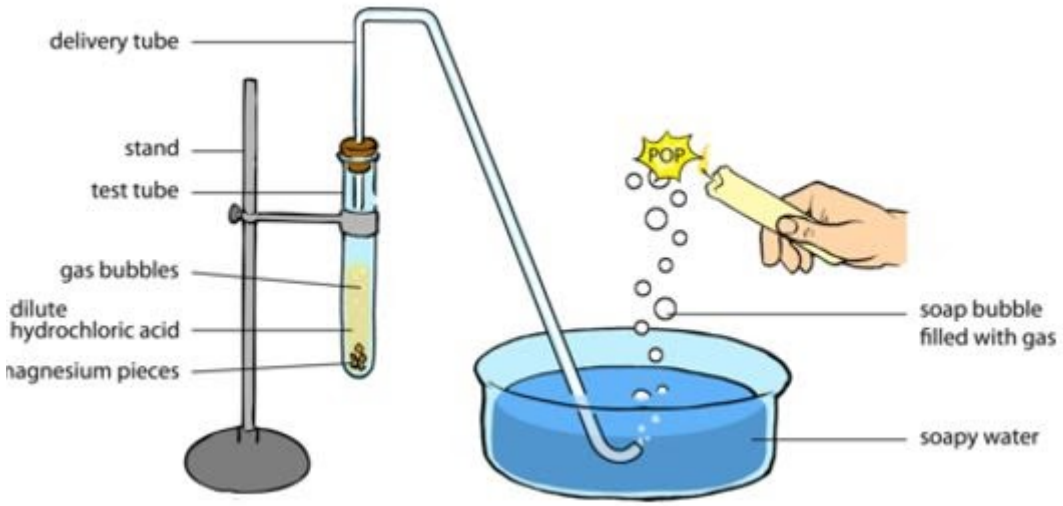
12. Aluminium (Al) cookers are anodised from inside so that in the presence of air and water .....is formed as a protective layer, which prevents further oxidation of aluminium. Select the correct option to fill in the blank.

A) AlO
B) Al_2O_3
C) $Al(OH)_3$
D) $Al(OH)_2$

- a. Option A
- b. Option B
- c. Option C
- d. Option D

Clear selection

13. Roshni has performed a small experiment as shown below, identify the gas filled in the soap bubble.



- A) Oxygen
- B) Nitrogen
- C) Hydrogen
- D) Sulphur dioxide

Clear selection

14. Duralumin, its composition and heat treatment, was openly published in the German scientific literature before World War I. John has discovered a plate of the aircraft USS Akron, which was a helium-filled rigid airship of the U.S. Navy. Can you help John to identify its constituents that help Duralumin to have a strong core, and to be corrosion resistant?

- A) Aluminium, Nickel, zinc
- B) Aluminium, tin, lead
- C) Aluminium, copper, manganese, magnesium
- D) Aluminium, nickel, cobalt

Clear selection

15. Rohan has studied the below mentioned chart on ignition temperature, based on the chart please identify the sequence of material which has a higher possibility of catching fire.

Material	Ignition temperature
Petrol	246 degree C
Diesel	210 degree C
Paper	233 degree C
Coal	454 degree C
Wood	300 degree C

- A) Petrol > Diesel > Paper > Coal > Wood
- B) Diesel > Paper > Petrol > Wood> Coal
- C) Diesel > Petrol > Paper > Wood> Coal
- D) Coal > Wood > Petrol > Paper> Diesel

Clear selection

16. X is a combustible substance, Y is non-combustible substance, Z is non-supporter of combustion. Identify the correct combination of X, Y and Z.

- A) X=CNG, Y=Glass, Z=Nitrogen
- B) X=Glass, Y=CNG, Z=Nitrogen
- C) X=CNG, Y =Nitrogen , Z= Glass
- D) X=Nitrogen, Y =CNG , Z= Glass

Clear selection

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