

Q. 2. Solve the following questions. (Any five)

[10 Marks]

- (1) Among 19^{K} , 3^{Li} , 11^{Na} , 4^{Be} , which atom has the smallest atomic radius? Why?
- (2) Explain the types of reaction with reference to oxygen and hydrogen. Illustrate examples.
- (3) Give scientific reason.

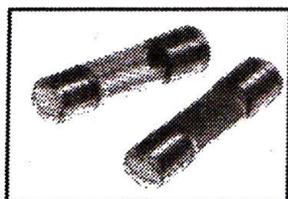
In practice for the measurement of electric energy the unit Kwh is used rather than Joule.

- (4) On what bases and how will you decide whether air is saturated or unsaturated.
- (5) Write a short note on :
Physical properties of metals.
- (6) If mass of the earth would have been 4 times the present one then how much time would have been taken by a satellite moving in the orbit at a height of 55780 Km to complete one revolution around the earth.
- (7) From the given molecular formula draw the structural formula
(a) C_4H_{10} (b) C_3H_4

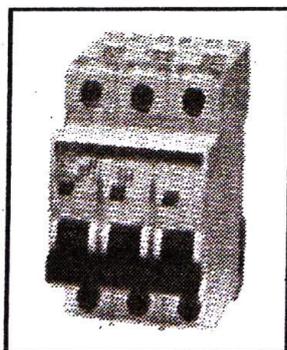
Q. 3. Solve the question (Any Five)

[15 Marks]

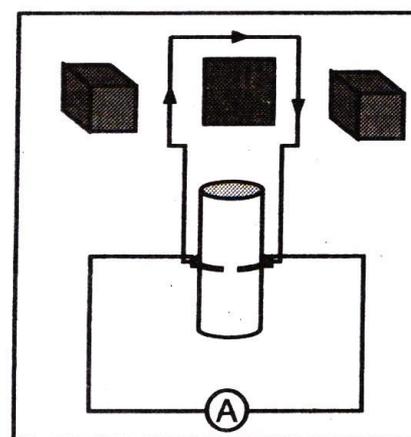
- (1) Write the demerits of Mendeleev's Periodic Table.
- (2) Write the similarity and differences between mixing NaOH to water and mixing CaO in water.
- (3) Identify the figures and explain their use.



(a)



(b)

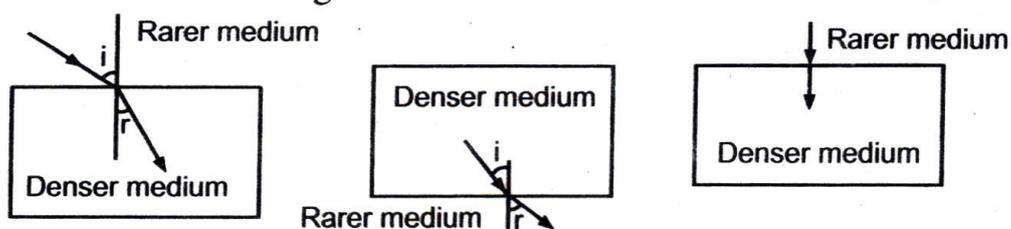


(c)

- (4) Liquid ammonia is used in ice factory for making ice from water. If water at 20°C is to be converted into 2 kg ice at 0°C , how many grams of ammonia are to be evaporated?

(The latent heat of vapourization of ammonia = 341 Cal/g)

- (5) Below given diagrams show the refraction of light in different media. Give the explanation for these diagrams.

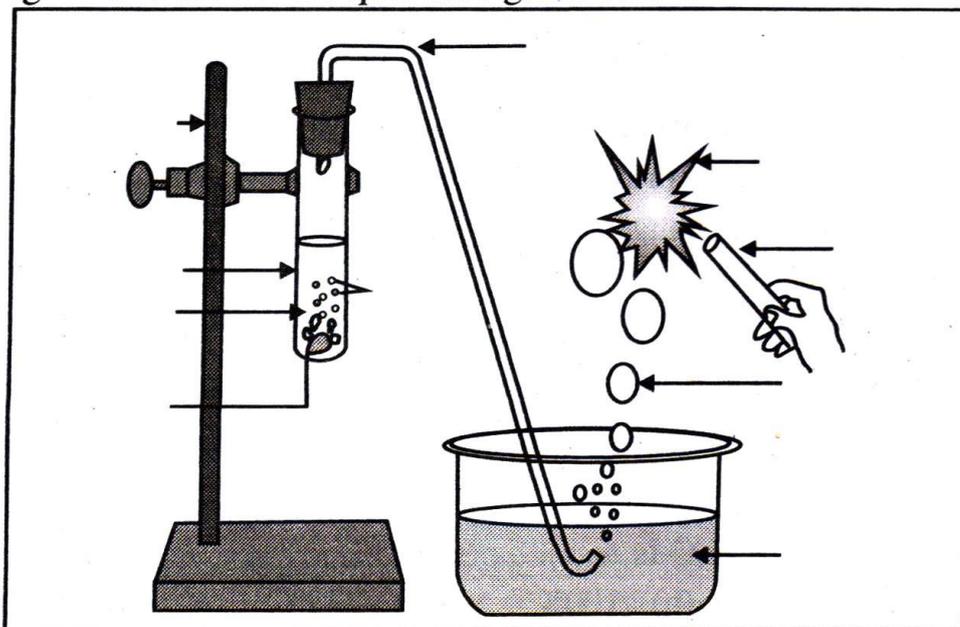


- (6) What is the function of iris and the muscles connected to the lens in human eyes ?
 (7) Into how many types are saturated hydrocarbons classified on their structural formula. Write their names with examples.

Q. 4. Solve the questions (Any one) :

[5 marks]

- (1) Given below is the diagram to show the reaction of metals with dilute acid. Label the diagram and answer the questions given below.



- (i) Which is the gas which burns with making sound.
 (ii) Write the action of dilute sulphuric acid with the examples of aluminium and magnesium.
- (2) Write the name from the given description ?
- Period with electrons in the shells K, L and M.
 - The group with valency zero.
 - The family of metals having valency two.
 - Non-metals in the third period.
 - Two elements having valency 4.

