Science Revision Test 2

Time : 45 mins

Max Marks: 30

General Instructions:
1. Question numbers 1 to 5 are one-mark questions. These are to be answered in one word or in one sentence.
2. Question numbers 6 to 10 are two-mark questions. These are to be answered in about 30 words each.
3. Question numbers 10 to 15 are three-mark questions. These are to be answered in about 50 words each.

Q1. Name the reducing agent in the following reaction:

(a) $3MnO_2 + 4Al$------> $3Mn + 2Al_2O_3$
State which is more reactive , Mn or Al and why ?

Q2. Write the chemical equation of the reaction in which formation of precipitate takes place.

Q3. Write balanced equation for the reaction between magnesium and hydrochloric acid. Name the product formed and identify the reaction

Q4. Name the acid present in the Tamarind.

Q5 Explain how antacid works.

Q6 Explain the action of dilute hydrochloric acid on the following with chemical equation:

a. Magnesium ribbon
b. Sodium hydroxide
c. Crushed egg shells

Q7. A. Give the constituents of baking powder.

B. Why cake or bread swells on adding baking powder? Write chemical equation.

Q8. A. Write the name given to bases which are highly soluble in water. Give an example

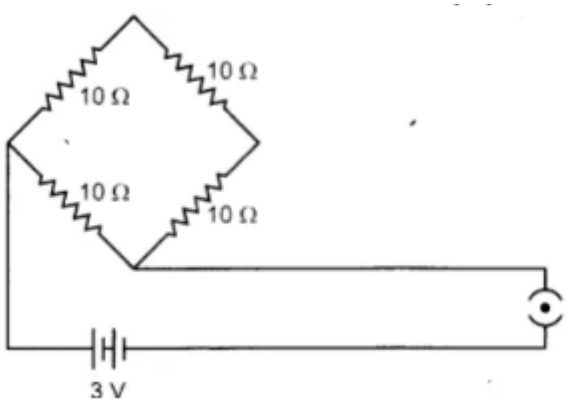
B. How is tooth decay related to pH? How can it be prevented.

Q9**.** Explain why is hydrochloric acid is strong acid compared to acetic acid. How it can be verified? Explain why aqueous solution of acid conducts electricity.

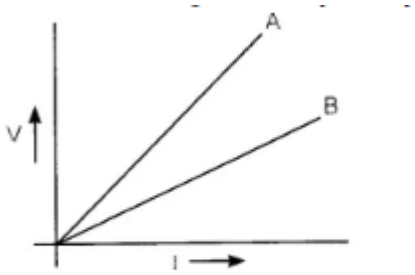
Q10**.** A. A metal compound X reacts with dil H_2SO_4 to produce effervescence . The gas evolved extinguishes a burning candle. If one of the compounds formed is calcium sulphate, then what is X and the gas evolved? Also write a balanced chemical equation for the reaction which occurred.

B. Farmer treats the soil with quicklime or calcium carbonate. What is the nature of the soil? Why does farmer treat the soil with quicklime?

Q11. Find the current drawn from the battery by the network of four resistors shown in the figure.



Q12. V-I graph of two wires A and B are shown in the figure. If both wires are of same length and same thickness, which of the two is made of a material of high resistivity? Give justification of your answer.



Q13. An electric bulb of resistance 200 ohm draws a current of 1A. Calculate the power of the bulb the potential difference at its ends and the energy in KWH consumed burning it for 5h.

Q14. In single celled organisms diffusion is sufficient to meet all the requirements of food, exchange of gases or removal of wastes but it's not in case of multicellular organisms. Explain the reason for the difference.

Q15. State the role of the following in human digestive system:

a. Digestive enzymes
b. Hydrochloric acid
c. Villi