

WORK SHEET (SA-I)

CLASS: X

SUB: CHEMISTRY

Answer the following:

1. What are acids and bases?
2. Name an acid-base indicator prepared at home.
3. Why should water be never added to conc. acid?
4. What are antacids? Give two examples.
5. What effect does the conc. H^+ have on the acidic nature of the solution?
6. What is common name of the compound $CaOCl_2$?
7. State the chemical name of Plaster of Paris. Write a chemical equation to show the reaction between POP and water.
8. What is the colour of $FeSO_4 \cdot 7H_2O$ crystals? How does this colour change on heating? Give the balanced chemical equation for the change.
9. Write balanced equations for the reactions:
 - i) Dilute sulphuric acid reacts with zinc granules.
 - ii) Dilute hydrochloric acid reacts with magnesium ribbon.
 - iii) Dilute sulphuric acid reacts with aluminium powder.
 - iv) Dilute hydrochloric acid reacts with iron filings.
10. Why does distilled water not conduct electricity where as rain water does?
11. a) What is universal indicator ?
b) Write the chemical equation involved in the preparation of sodium hydroxide. Name the process.
12. A milk man adds a very small amount of baking soda to fresh milk.
 - a) Why does he shift the Ph of the fresh milk from 6 to slightly alkaline ?
 - b) What do you expect to observe when the milk comes to a boil?
 - c) Why does this milk take a long time to set as curd ?
13. What is neutralization reaction? Give two examples.
14. What is pH scale? Given below are the pH values of four liquids.

7.0, 14.0, 4.0, 2.0 which of these could be that of

- a) lemon juice b) distilled water c) 1 M NaOH solution d) tomato juice

15. What happens when nitric acid is added to egg shell?
16. How would you distinguish between baking powder and washing soda by heating?
17. What are ionic compounds? Write any three properties of them.
18. Name any two metals which occurs in a) free state b) combined state
19. Name the following:
- a) A metal which is kept under kerosene.
 - b) A lustrous coloured non metal.
 - c) A metal which can melt while kept on palm.
 - d) A metal which is a poor conductor of heat.
20. Why does calcium float in water?
21. What is activity series of metals? Arrange Na, K, Cu, Ag in the decreasing order of reactivity.
22. What are amphoteric oxides? Give two examples.
23. Why do ionic compounds have high melting point?
24. A metal X acquires a green colour coating on its surface on exposure to air.
- a) Identify the metal X and name the process responsible for this change.
 - b) Name and write chemical formula of the green coat formed on the metal.
 - c) List two important methods to prevent the process.
25. Differentiate metals and non metals on the basis of their chemical properties.
26. State two ways to prevent the rusting of iron.
27. Give reasons:
- a) Platinum, gold and silver are used to make jewellery.
 - b) Carbonate and sulphide ores are usually converted into oxides during the process of extraction.
 - c) Tarnished copper vessels are cleaned with tamarind juice.
28. Define the following terms:
- a) Mineral b) ore c) gangue d) metallurgy

29. Name the main ore of mercury. How is mercury obtained from its ore ? write a balanced chemical equation.
30. What is thermite reaction? How is it used to join the railway tracks or cracked machine parts.
31. a) carbon cannot be used as reducing agent to obtain Mg from MgO. Why?
b) How is copper obtained from its sulphide ore? Give equations of the reactions.
32. Write two differences between calcination and roasting.
33. What are alloys? Mention constituent metals present in bronze.
34. What is meant by corrosion? Name any two methods used for the prevention of corrosion.
35. What happens when
a) ZnCO_3 is heated in the absence of oxygen?
b) a mixture of Cu_2O and Cu_2S is heated ?
36. Of the three metals X, Y, Z, X reacts with cold water, Y with hot water and Z with steam only. Identify X, Y, and Z. and also write their equations.
37. A student was given Mn, Zn, Fe, and Cu metals. Identify which of them
a) Will not displace H_2 from dil HCl.
b) Will react only with steam to give H_2 gas.
c) Will give H_2 with HNO_3 . And also write their equations.
38. Copper is used to make hot water tanks but steel is not. Why?
39. What is rancidity? Why nitrogen gas is filled in the food containing packets?
40. Show the electronic transfer in the formation of MgCl_2 .

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