GENERAL INSTRUCTIONS:

1. Read the questions carefully.
2. All the answers to be written on the answer sheet provided.
3. Total number of questions is 43.

SECTION - A

I. Choose the correct answer from the following options 1 x 15 = 15 Marks

1. In desert plants, leaves are reduced to spines to minimize ________
   a) condensation     b) absorption     c) transpiration     d) transportation

2. The solution that is used for starch test is ________.
   a) CuSO₄ Solution   b) iodine solution   c) HCl            d) caustic soda

3. ________ helps to keep the total amount of water on the earth constant.
   a) Water cycle      b) Clouds         c) Oceans           d) Aquifer

4. Which of the following is a base?
   a) distilled water  b) vinegar        c) turmeric         d) window cleaner

5. The process of taking in food into the body is called ________
   a) digestion       b) ingestion       c) egestion         d) assimilation

6. The acid present in ant sting is ________.
   a) formic acid      b) oxalic acid     c) ascorbic acid    d) nitric acid

7. Fungal spores are generally present in the ________.
   a) water           b) soil            c) air             d) None of these

8. Which of the following is not a chemical change?
   a) photosynthesis  b) burning         c) melting         d) respiration

9. ORS is given to a person suffering from ________.
   a) flu             b) acidity          c) diarrhoea        d) chicken pox

10. Violet cabbage changes to ________ in magnesium hydroxide.
    a) pink           b) purple          c) green           d) colourless
11. Atmospheric nitrogen is converted into soluble form by ______.
a) amarbel  b) mushroom  c) rhizobium  d) bread mould

12. Amoeba uses ______ to capture its food.
a) pseudopodia  b) food vacoule  c) nucleus  d) food pipe

13. Vitamin ‘C’ is also known as ______.
a) lactic acid  b) ascorbic acid  c) antacid  d) baking soda

14. An example for a saprotroph - ______.
a) alga  b) lichens  c) mushroom  d) Cuscutta

15. The base that is present in soap is ______.
a) Calcium oxide  b) Sodium bicarbonate
    c) Calcium hydroxide  d) Sodium hydroxide

SECTION - B

16. Match the following  (½ x 4 = 2 Marks)
   a) water harvesting  1) chemical change
   b) crystallisation  2) 22nd March
   c) medicines  3) future use
   d) water day  4) physical change

   5) 21st March

17. State the effect & give reason  (1 x 2 = 2 Marks)
a) when a drop of lemon is put on a strip of blue litmus paper.
b) when carbon dioxide is passed through lime water.

18. Name the following:  (1 x 2 = 2 Marks)
a) The process of seepage of water into the ground.
b) The colourless indicator that turns pink in basic solution.

19. Fill in the blanks  (½ x 4 = 2 Marks)
a) Excessive rain causes ______, whereas the absence of rain results in ______.
b) For rusting of iron, the presence of ______ and ______ are essential.

20. Correct false statements-  (1 x 2 = 2 Marks)
a) Ponds are the traditional way of collecting water.
b) Sulphuric acid is also known as blue vitriol.
SECTION - C

III. Answer the following in two or three sentences - 2 x 10 = 20 Marks

21. Mention any four factors that lead to the depletion of the water table.

22. Differentiate between autotrophic & heterotrophic nutrition.

23. What is galvanisation? State its importance.

24. Turmeric indicator does not indicate whether the given substance is acidic or neutral. Is the statement true? Explain.

25. Write the word equation for the chemical reaction between
   (i) copper sulphate and iron
   (ii) vinegar and baking soda.

26. Write the functions of the tongue.

27. What is drip irrigation? Mention its advantage.

28. What is a physical change? Give an example.

29. a) What are indicators?
    b) Great care should be taken while handling laboratory acids and bases. Why?

30. What is stainless steel? Mention its advantage.

SECTION - D

IV. Answer the following in 3 or 4 sentences - 3 x 10 = 30 Marks

31. a) Write a short note on DNA.
    b) Name the acid present in (i) grapes and (ii) curd.

32. Explain nutrition in starfish.

33. Draw a neat, labelled diagram of the water cycle.

34. Explain the symbiotic relationship in lichens.

35. Differentiate between absorption and assimilation.

36. Explain the process of neutralisation and give an example

   OR

36. Write a short note on acid rain.

37. Explain parasitic and saprotophopic modes of nutrition with examples.
38. What are the secretions produced by the stomach in the human body? Write their functions.

39. List any two differences between acids and bases. Also write an example for each.

40. Explain the structure of a cell.

SECTION – E

V. Answer the following in Detail 5 x 3 = 15 Marks

41. a) A person suffering from indigestion is given an antacid. Why? Explain. (3m)
   b) How do we prepare lime water? (2m)

42. a) What is diarrhoea? How is it caused? (2m)
   b) Identify the diagram and label the parts: (3m)

43. a) Explain the process of photosynthesis and represent it in the form of an equation. (3½ m)
   b) What are carbohydrates made up of? (1½ m)

OR

43. a) What is tooth decay? (2m)
   b) Name the doctor who discovered the working of the stomach. (1m)
   c) List any four processes involved in nutrition. (2m)