QUESTIONS CARRIES 1 MARK EACH

1. Which of the following is a mixture?

Salt, Air, Water, Alum, Sugar

2. Name one metal and one non-metal which exist as liquids at room temperature.
3. Name a metal which is soft and a non-metal which is hard.
4. Name a non-metal which is a good conductor of electricity.
5. Name one solid, one liquid and one gaseous non-metal.
6. What is meant by saying that metals are malleable and ductile?
7. What is meant by saying that metals are sonorous?
8. What is the general name of the materials which contain at least two pure substances and show the properties of their constituents?
9. What is the major difference between a solution and an ordinary mixture?
10. What name is given to those elements which are neither good conductors of electricity like copper nor insulators like sulphur?
11. What is the name of the clear liquid formed when a solid dissolves in a liquid?
12. Which of the two will scatter light: soap solution or sugar solution? Why?
13. State whether colloidal solutions are homogenous or heterogeneous.
14. How much water should be added to 15 grams of salt to obtain 15 per cent salt solution?
15. A 5 per cent sugar solution means that:

(a) 5g of sugar is dissolved in 95g of water.

(b) 5g of sugar is dissolved in 100g of water.

16. Calculate the concentration of a solution which contains 2.5 g of salt dissolved in 50 g of water.

<u>Multiple Choice Questions (MCQs)</u>

17. Which of the following is not an element?

(a) Graphite (b) germanium (c) silica (d) silicon

18. Which of the following are compounds?

(i) CO (ii) No (iii) NO (iv) Co

(a) (i) and (ii) (b) (ii) and (iii) (c) (i) and (iii) (d) (ii) and (iv)

19. One of the following substances is neither a good conductor of electricity nor an insulator. This substance is

(a) Chromium (b) germanium (c) gallium (d) potassium

20. The element which is not common between the compounds called baking soda and soda ash is

(a) sodium (b) hydrogen (c) oxygen (d) carbon

21. "Is malleable and ductile" best describes:
(a) a solution(b) a metal (c) a compound (d) a non-metal
22. The property / properties which enable copper metal to be used for making electric wires is/are:
(a) copper metal is malleable and ductile
(b) copper metal is a good conductor of electricity
(c) copper metal is ductile and has low electrical resistance
(d) copper metal is sonorous and an excellent conductor of electricity
23. On the basis of composition of matter, milk is considered to be:
(a) a pure substance (b) an impure substance (c) an element (d) a compound
24. Which of the following are homogeneous in nature?
(i) Ice (ii) wood (iii) soil (iv) air
(a) (i) and (iii) (b) (ii) and (iv) (c) (i) and (iv) (d) (iii) and

QUESTIONS CARRIES 2/3 MARKS EACH

25. What are the two types of pure substances? Give one example of each type.
26. State three reasons why you think air is a mixture and water is a compound.
27. Explain why, hydrogen and oxygen are considered elements where as water is not considered an element.
28. Compare the properties of metals and non-metals with respect to (i) malleability (ii) ductility and (iii) electrical conductivity.
29. Give reason why:
(a) Copper metal is used for making electric wires.
(b) Graphite is used for making electrode in a dry cell.
30. Is air a mixture or a compound? Give three reasons for your answer.
31. Define a compound. Give two points of evidence to show that sodium chloride is a compound.
32. Define a mixture. Give two points of evidence to show that sugar solution is a mixture.
33. Explain why, a solution of salt in water is considered a mixture and not a compound.
34. You are given two liquids, one a solution and the other a compound. How will you distinguish the solution from the compound?

QUESTIONS CARRIES 5 MARKS EACK

35. (a) What is meant by (i) elements (ii) compounds, and (iii) mixtures? Write down the names of two elements, two compounds and two mixtures.
(b) Classify the following into elements, compounds and mixtures:

Marble, Air, Gold, Brass, Sand, Diamond, Graphite, Petroleum, Common salt, Sea-water, Chalk.

36. (a) What is a mixture? Give two examples of mixtures.

(b) What is meant by (i) homogeneous mixtures, and (ii) heterogeneous mixtures? Give two examples of homogeneous mixtures and two of heterogenous mixtures.

(c) What is the other name of homogenous mixtures?

37. (a) What are the three general classes of matter? Give one examples of each type.

(b) Draw a flow-chart for the schematic representation of different types of matter.

38. A, B and C are all liquids. Liquid A has a comparatively low boiling point. On heating, liquid A vaporizes completely without leaving behind any residue. Liquid A is being used increasingly as a fuel in motor vehicles either alone or by mixing with petrol. Liquid B has a very high boiling point. It also vaporizes completely on heating, without leaving any residue. Liquid B is a conductor of electricity and used in making thermometers. Liquid C has a moderate boiling point. On heating, liquid C vaporizes leaving behind a white solid D which is used in cooking vegetables. The condensation of vapours from C gives a liquid E which turns anhydrous $CuSO_4$ to blue.

(a) Which liquid could be an element? Name this element.

(b) Which liquid could be a mixture? Name this mixture.

(c) Which liquid could be a compound? Name this compound.

(d) What could the solid D be?

(e) What do you think is liquid E?

39. (a) What is a physical change? Give two examples of physical changes.

(b) What is a chemical change? Give two examples of chemical changes.

40. (a) Define solubility of a substance. How does it vary with temperature?

(b) What do you understand by the statement "the solubility of copper sulphate in water at 20^0C is 20.7 g" ?

(c) What is the effect of temperature on the solubility of solids in liquids?

41. (a) What is meant by a solution? Give two examples of solutions.

(b) What is a suspension? Give two examples of suspensions.

(c) What is a colloid? Give two examples of colloids (or colloidal solutions