**Translation**

Translate the following passages into French.

1. Mendeleev correctly predicted the existence and chemical and physical

properties of undiscovered elements gallium and germanium.

1. Mendeleev’s groups were chosen first based on the elements having chemical

and physical properties, and second based on arranging the elements by increasing

atomic mass.

1. The vast number of chemical reactions can be classified in any number of ways. Under one scheme they can be categorized either as oxidation-reduction (electron transfer) reactions or non-oxidation-reduction reactions.
2. Chemical equation does not clarify the state of the substances. So (s) for solid, (t) for liquid, (g) for gas and (vap) for vapour may be added. The reaction may or may not be conclude but the equation does not reveal it. Chemical equation does not give any information regarding the speed of the reaction. Chemical equation does not give the concentration of the substances and in some cases, the terms like diluted and concentrated are used.
3. It is the surface tension that accounts for the rise of liquids in capillary tubes.
4. The nucleus of every atom is assumed to contain enough protons to account for the nuclear charge.
5. We can easily account for the viscosity of fluids.
6. On account of its inertness it is difficult to make nitrogen combine with other
7. elements.
8. On account of their unusually strong colours, sulphides of many metals have come to be used in the paint industry.
9. Hydrogen sulphide is a poisonous gas. On this account care should be taken when working with it.
10. According to the theory of atomic disintegration, ordinary atoms are supposed to
11. be a small intricate systems linked by tremendous power.
12. Elements have been classed according to their valence and also according to many other properties.
13. Mendeleyev arranged the elements according to the magnitude of their atomic weight.
14. Gold is not acted upon by air or oxygen at any temperature.
15. As a rule, alcohols are rather easily acted upon by other chemicals.
16. When methane is acted upon by chlorine a reaction of substitution takes place.
17. Sodium hydroxide is soluble in water, a large amount of heat being liberated.
18. The compounds of carbon amount to over 300,000. The total amount of radium produced up to 1940 amounted to about one kilogramme.
19. The electrons and the nucleus are very small as compared with the size of the atom.
20. Oxygen is twice as soluble as compared to nitrogen.
21. Hydrofluoric acid is a relatively weak acid as compared with the binary acids of the other elements.
22. As far as chemical properties of sulphur are concerned it unites directly with common metals, except gold and platinum.
23. In oxidizing many substances with a solution of iodine, the yellow or brown colour of the iodine fades away as fast as iodine is added until the end point is reached.
24. As long as water evaporates in an open vessel, water vapour mingles with the atmosphere because of diffusion.
25. As much as 80 volumes of sulphur dioxide will go to dissolve in one volume of water at room temperature.
26. As to its chemical properties oxygen is very reactive.
27. Silicon resembles carbon in having crystalline as well as amorphous form.
28. Radioactive elements are of great importance as to their use in many branches of industry.
29. The only elements that are liquid at room temperature are bromine and mercury. However, you can melt gallium by holding a lump in the warmth of your hand.
30. Substances can be divided into elementary substances and compounds on the basis of the chemical changes they are involved in. Compounds decompose into other substances, elementary substances do not (not in a chemical change). Likewise, compounds can be made by combination of other substances, elementary substances cannot. Compounds ultimately decompose into, and can be made from, elementary substance.
31. Copper (Cu), sodium chloride (NaCl) and hydrogen (H2) are substances. Some substances are elements and some substances are compounds. Element has only one type of atom whereas compounds have more than one type. Copper is an element: It has only one type of atom (i.e. only copper atoms). Oxygen has one type of oxygen atom, so it is also an element. Sodium chloride has two different types of atom (sodium and chlorine), so it is a compound. Water is also a compound.