***UNIT -A CLASSIFICATIONS AND PROPERTIES OF MATTER.***

1. What are the differences between pure substances and mixtures?

2. How are elements and compounds identified?

3. How are suspensions, solutions, and colloids related?

4. What are physical and chemical properties?

5. What are the differences and similarities of physical and chemical changes?

***UNIT – B Atomic Structure and the Periodic Table***

1. What are the names and symbols of common elements?

2. What is the structure of an atom?

3. What is the electron cloud model of the atom?

4. How do you determine the atomic mass and mass number of an element?

5. What are isotopes?

6. How do you determine the average atomic mass of an element?

7. How is the periodic table organized?

8. How does a compound differ from its component elements?

9. What does a chemical formula represent?

10. How do electron dot diagrams help explain chemical bonding?

11. Why does chemical bonding occur?

12. What are ionic and covalent bonds?

13. How are oxidation (valence) numbers determined?

14. How are formulas for ionic and covalent compounds written?

15. How are ionic and covalent compounds named?

**UNIT- C Interactions of Matter**

1. What is an acid? What is a base?

2. What are the properties of acids and bases?

3. How types of ions do acids and bases form?

4. What determines the strength of an acid or a base?

5. What is a neutralization reaction?

6. What are the products of a neutralization reaction?

7. What are the reactants and products in a chemical reaction?

8. Is mass conserved in a chemical reaction?

9. Why are chemical equations important?

10. How do you balance a chemical equation?

11. What are the five types of chemical reactions?

12. What are four ways that one can increase the rate of chemical reactions?

13. Does every form of radiation harm you?

14. What types of radiation could harm you?

15. How can you detect radiation that is harmful?

16. What particles make up the nucleus? What is the general term for them? What are those particles composed of?

17. What is the definition of the atomic number? What is its symbol?

18. What is the definition of the atomic mass number? What is its symbol?

19. what is the nuclear emission of radiation from nuclei called? What are the three types?

20. What are nuclear fusion and fission where do they occur?