

**SCIENCE QUESTION PAPER (UNIT WISE)****STD: X****UNIT-7 ATOMS AND MOLECULES (2 & 5 MARKS)****SHORT ANSWER:**

1. WHAT ARE ISOTOPES? GIVE EXAMPLES
2. WHAT ARE ISOBARS? GIVE EXAMPLES.
3. WHAT ARE ISOTONES? GIVE EXAMPLES.
4. WHAT IS MATTER?
5. WHAT IS MASS NUMBER?
6. DEFINE ATOMIC MASS UNIT.
7. DEFINE RELATIVE ATOMIC MASS (RAM).
8. WHAT IS GRAM ATOMIC MASS? GIVE EXAMPLES.
9. DIFFERENTIATE HOMOATOMIC AND HETEROATOMIC MOLECULES.
10. WHAT ARE POLY ATOMIC MOLECULES? GIVE EXAMPLES.
11. WHAT IS AVERAGE ATOMIC MASS?
12. CALCULATE THE AVERAGE ATOMIC MASS OF CARBON.
13. DEFINE ATOMICITY AND WRITE ITS CLASSIFICATION.
14. DEFINE RELATIVE MOLECULAR MASS (RMM).
15. DEFINE RELATIVE MOLECULAR MASS BASED ON HYDROGEN SCALE.
16. WHAT IS GRAM MOLECULAR MASS?
17. WHAT ARE THE DIFFERENCES BETWEEN ATOMS AND MOLECULES?
18. WHAT IS THE MOLE CONCEPT?
19. DEFINE MOLE.
20. DEFINE AVAGADRO'S NUMBER.
21. DEFINE MOLAR VOLUME.
22. DEFINE MOLE OF ATOMS.
23. DEFINE MOLE OF MOLECULES.
24. WHAT ARE THE DIFFERENT MODES CALCULATION OF NUMBER OF MOLES?
25. STATE AVOGADRO'S LAW.
26. WHAT ARE IMPORTANT DATA IS USED TO CALCULATE NUMBER OF MOLES OF A SUBSTANCE?
27. DEFINE VAPOUR DENSITY.
28. WHAT IS THE PERCENTAGE OF COMPOSITION?
29. CALCULATE THE RMM OF SULPHURIC ACID.
30. CALCULATE THE RMM OF WATER.
31. CALCULATE THE AVERAGE ATOMIC MASS OF OXYGEN.
32. CALCULATE THE AVERAGE ATOMIC MASS OF BORON.
33. FIND THE MASS PERCENTAGE COMPOSITION OF METHANE.
34. CALCULATE PERCENTAGE OF SULPHUR IN SULPHURIC ACID.

**ANSWER IN DETAIL:**

1. WHAT ARE THE MAIN POSTULATES OF MODERN ATOMIC THEORY.
2. DIFFERENTIATE BETWEEN ISOTOPES AND ISOBARS.
3. EXPLAIN RELATIVE ATOMIC MASS.
4. EXPLAIN AVERAGE ATOMIC MASS WITH ONE EXAMPLE.
5. WHAT IS MOLECULE? EXPLAIN THE CLASSIFICATION OF MOLECULES.
6. EXPLAIN PERCENT COMPOSITION WITH ONE EXAMPLE.
7. STATE AVOGADRO'S LAW. WRITE THE APPLICATIONS OF AVOGADRO'S LAW.
8. DESCRIBE THE RELATION BETWEEN VAPOUR DENSITY AND RELATIVE MOLECULAR MASS.
9. DESCRIBE AVOGADRO'S HYPOTHESIS.

\*\*\*\*\*

**PREPARED BY**  
**S.MOHAN M.Sc.,B.Ed.,**  
**9629133232**

11/11/2020