QUIZEN – Basic Concept of Chemistry(11C01)

Learning Level 1	***Learning Level 2***	***Learning Level 3***
Q - Remembering (knowledge-based questions) U - Understanding (comprehension-based questions)	I - Applying (application-based questions) Z - Analyzing (analysis-based questions)	*E - Evaluating (evaluation-based questions)* *N - Creating (creation-based questions)*

Learning Level 1

1. Define concentration in chemistry.
2. What is the formula to calculate concentration?
3. State the unit of concentration used for a solid solute in a liquid solvent.
4. What is the difference between molarity and molality?
5. Explain the concept of dilution and its effect on concentration.

Learning Level 2

6. Calculate the molarity of a solution containing 0.5 moles of solute dissolved in 2 liters of solvent.
7. A solution is prepared by dissolving 25 grams of solute in 500 milliliters of solvent. Calculate the molarity of the solution.
8. A student prepares a solution by dissolving 3.5 grams of solute in 250 milliliters of solvent. Calculate the molality of the solution.
9. How will the concentration of a solution be affected if more solvent is added to it? Explain with an example.
10. Compare the concentration of a 1 M solution and a 1 molal solution. Which one would you use in a chemical reaction? Justify your answer.

Learning Level 3

11. Evaluate the advantages and disadvantages of using molarity as a concentration unit.
12. Design an experiment to determine the concentration of a given solution using a suitable method.
13. Compare the concentration of a solution prepared by dissolving 10 grams of solute in 500 milliliters of water with a solution prepared by dissolving 10 grams of solute in 1 liter of water. Which solution would have a higher concentration? Justify your answer.
14. Discuss the impact of concentration on the rate of a chemical reaction. Include relevant examples and scientific explanations.
15. Create a hypothetical scenario where the concentration of a solution plays a crucial role in a real-life application. Explain the significance of concentration in that scenario.