QUIZEN – Gravitation (9P03)

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. State Newton's law of universal gravitation in words.
2. What is the gravitational force between two objects called?
3. Name the scientist who proposed the law of universal gravitation.
4. 4.Explain why the value of acceleration due to gravity is different on different planets.
5. Describe the factors that affect the gravitational force between two objects.
6. Compare the gravitational force between two objects on the Earth and the Moon. Which one is stronger and why?
7. Calculate the gravitational force between two objects with masses of 10 kg and 5 kg separated by a distance of 3 m
8. A satellite of mass 1000 kg is orbiting the Earth at a distance of 5000 km from its center. Calculate the gravitational force acting on the satellite.
9. A stone is thrown vertically upwards with a velocity of 40 m/s. Calculate the time taken for the stone to reach the highest point of its motion
10. An object weighs 500 N on the surface of the Earth. Calculate its weight on the surface of the Moon, where the acceleration due to gravity is one-sixth that on the Earth
11. Explain why objects fall freely towards the Earth due to gravity.
12. Compare the acceleration due to gravity on the surface of the Earth and on the surface of a planet with 4 times the mass and 2 times the radius of the Earth.
13. Design an experiment to determine the acceleration due to gravity on the surface of a planet other than Earth.
14. Create a concept map to show the relationship between the concepts of mass, distance, gravitational force, and acceleration due to gravity.
15. Define acceleration due to gravity and write it as a LaTeX formula