QUIZEN – Force and Laws of motion(9P02)

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)*

1. Define force and write its SI unit.
2. SI unit of force is Newton (N).
3. What is friction? Name the two types of friction.
4. State Newton's First Law of Motion.
5. What is inertia? State the concept of inertia with an example.
6. Explain the concept of friction with an example.
7. A body of mass 5 kg is moving with an acceleration of 2 m/s
8. Calculate the force acting on it.
9. A car is moving on a road with a velocity of 30 m/s. The force of kinetic friction acting on the car is 500 N. Calculate the coefficient of kinetic friction between the car's tires and the road.
10. A book is kept on a table. Identify the type of friction acting on it and explain why it is so.
11. A ball is rolling on a horizontal surface with a constant velocity of 5 m/s. Explain the concept of balanced forces acting on the ball.
12. A person pushes a cart with a force of 100 N. If the frictional force acting on the cart is 50 N, calculate the net force acting on the cart.
13. Explain the concept of "balanced forces" and give an example from everyday life
14. Design an experiment to measure the coefficient of friction between two different materials.
15. A rocket is launched into space. Explain the principle of action and reaction involved in its motion.