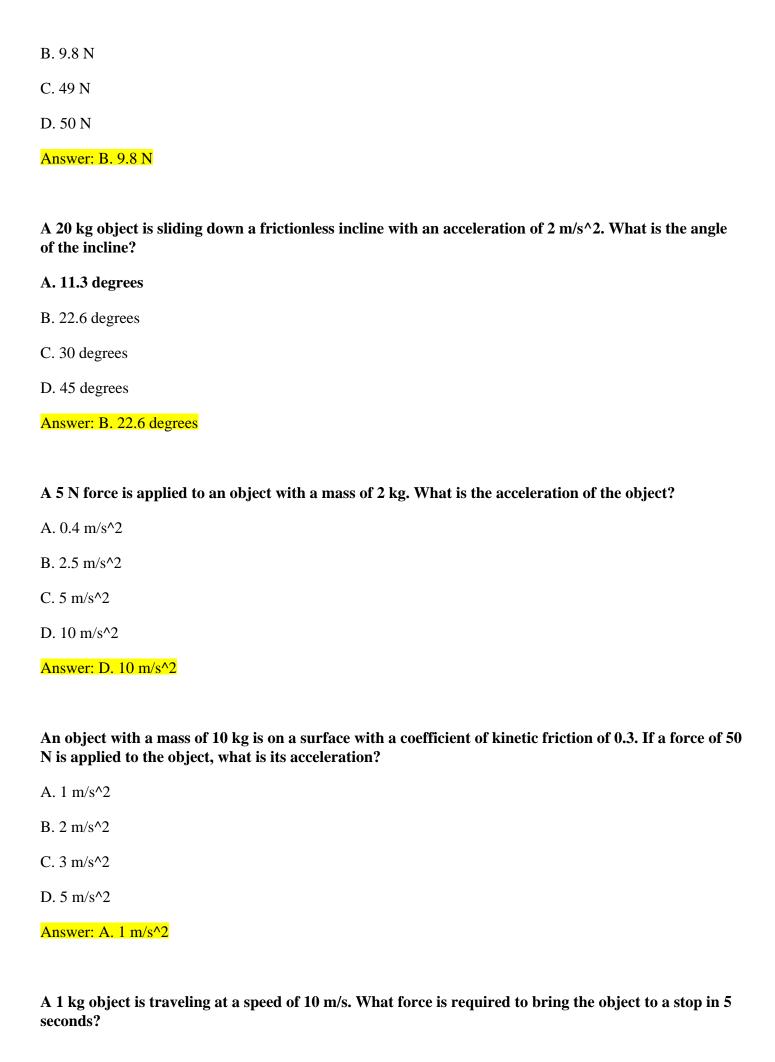
6 Lecture - PHY101

Important Mcqs

A 10 kg object is placed on a surface with a coefficient of static friction of 0.4. What is the maximum force that can be applied to the object before it begins to move?
A. 4 N
B. 40 N
C. 100 N
D. 400 N
Answer: B. 40 N
A 2 kg object is accelerating at a rate of 5 m/s^2. What is the net force acting on the object?
A. 0.4 N
B. 2.5 N
C. 5 N
D. 10 N
Answer: D. 10 N
A 1000 kg car is traveling at a speed of 20 m/s. If the brakes are applied and the car comes to a stop in 5 seconds, what is the average force exerted on the car by the brakes?
A. 4000 N
B. 8000 N
C. 10000 N
D. 20000 N
Answer: C. 10000 N

An object with a mass of $5\ kg$ is suspended from the ceiling by a rope. What is the tension in the rope?

A. 5 N



A. 2 N
B. 10 N
C. 20 N
D. 50 N
Answer: C. 20 N
An object with a mass of 2 kg is pushed with a force of 10 N. What is the acceleration of the object?
A. 2.5 m/s^2
B. 5 m/s^2
C. 10 m/s^2
D. 20 m/s^2
Answer: B. 5 m/s ²
An object with a mass of 10 kg is traveling at a speed of 5 m/s . What force is required to double the object's speed in 5 seconds ?
A. 5 N
B. 10 N
C. 25 N
D. 50 N
Answer: D. 50 N