

## P10: Force and Motion Assignment-1

Q1: Describe Newton's First law of motion

Q2: Copy and complete the table:

	Force (N)	Mass in kg	Acceleration (m/s <sup>2</sup> )
a)		30	0.60
b)	100		0.30
c)		100	1.23
d)	85	7.5	
e)	100	8	
f)	1000		3.5

Q3: Describe Newton's Second law of motion.

Q4: Calculate the resultant force on an object of mass 36 kg when it has an acceleration of  $5.0 \text{ m/s}^2$ .

Q5: Calculate the acceleration of an object with mass 16.0 kg acted on by a resultant force of 150 N.

Q6: A car and a trailer have a total mass of 2400 kg. Calculate the force needed to accelerate the car and the trailer at 5.0 m/s<sup>2</sup>.

Q7 : What is inertia? Explain in terms of newton's first law of motion.

Q8: What is the weight of the object on Moon, if the weight of the object on the surface of the earth is 112 kg. The gravitational field on the strength of the moon is one sixth of that Moon.