CLASS 9 PHYSICS

1). Differentiate between Acceleration due to gravity and gravitational force.

2). Give reasons:

a. Tides rising above the surface level of the sea

b. Satellites can circle in a circular orbit

3). Explain how the second law of motion influences a cricket fielder while catching a ball.

4). Calculate the potential energy of an object at rest weighing 5 kg when placed at a height of 5 m above the level of the ground. Given gravitational constant $g = 9.8\ ms^{-2}$.

5). A 40 W tube light is used for 8 hr/day. Find how much units of energy is consumed by the tube light in one day?

6). Calculate the acceleration required to push a box weighing 3.5 kg with 2 N of force.

7). A crate weighing 45 kg was pushed on the floor to about 15 m with a force of 20 N. Calculate the work done.

8). There is a change in velocity observed from 10 m/s to 15 m/s when a force of 300 N is applied to a body. Calculate the mass of the body?

9). What would be the force required to accelerate the speed of a vehicle weighing 1500 kg and moving at a speed of 10 ms^{-1} ?

10). What should be the distance from the cliff if a person needs to hear the echo of his voice after 5 s, provided the speed of the sound is 345 ms^{-1}.