

Worksheet

Practice. Learn. Succeed

Sub : Science

Grade: IX

Date:

Name:

ID No.....

Tick the Choice Question

- 1. An apple falls from a tree because of gravitational attraction between the earth and apple. If F_1 is the magnitude of force exerted by the earth on apple and F_2 is the magnitude of force exerted by apple on earth, then**
 - (a) F_1 is very much greater than F_2
 - (b) F_2 is very much greater than F_1
 - (c) F_2 is only a little greater than F_2
 - (d) F_1 and F_2 are equal
- 2. If a planet existed whose mass and radius were both half those of the earth, the acceleration due to gravity at its surface would be**
 - (a) 19.6 ms^{-2}
 - (b) 4.9 ms^{-2}
 - (c) 2.45 ms^{-2}
 - (d) 9.8 ms^{-2}
- 3. The weight of an object at the centre of the earth of radius R is**
 - (a) zero
 - (b) infinite
 - (c) R times the weight at the surface of the earth
 - (d) $\frac{1}{R^2}$ times the weight at surface of the earth
- 4. The two planets have radii r_1 and r_2 and densities d_1 and d_2 respectively. The ratio of acceleration due to gravity on them will be**
 - (a) $r_1 d_2 : r_2 d_1$
 - (b) $r_1 d_1 : r_2 d_2$
 - (c) $r_1^2 d_1 : r_2^2 d_2$
 - (d) $r_1 d_1^2 : r_2 d_2^2$
- 5. The gravitational force between two objects is F. If masses of both object are halved without changing distance between them, then the gravitational force would become**
 - (a) $\frac{F}{4}$
 - (b) $\frac{F}{2}$
 - (c) F
 - (d) 2F