

CHAPTER-10

GRAVITATION

WORKSHEET BASED ON MODULE-1

Class-IX (PHYSICS)

1. State the Universal law of Gravitation law.
2. Give the SI unit of Universal gravitation constant.
3. *Write the formula to find the magnitude of the gravitational force between the earth and an object on the surface of the earth.*
4. How does the force of gravitation between two objects change when the distance between them is reduced to one fourth?
5. What is the magnitude of the gravitational force between the earth and a 1 kg object on its surface? (Mass of the earth 6×10^{24} kg and radius of the earth is 6.4×10^6 m.
6. What happens to the force between two objects, if
 - (i) The mass of one object is doubled?
 - (ii) The distance between the objects is doubled and tripled?
 - (iii) The masses of both objects are doubled?
7. What is the importance of universal law of gravitation?