

GRAVITATION

7.12.21

Q1) Which force is responsible for stability of our universe?

Gravitational force.

Q2) Which force is required to maintain a body in uniform circular motion?

Centripetal force.

Q3) What is gravity?

Gravity is the universal force of attraction between all matter.

Q4) How is the weight of an object related to its mass?

Weight is the measure of the force of gravity on an object's mass, ~~which~~ while mass is the measure of how much matter there is in an object.

Q5) Mass of boy on earth is 40 kg, what is the mass on the moon?

$$\frac{40}{6} = 6.\bar{6}$$

$$6 \overline{) 40} \bar{6}$$
$$\begin{array}{r} 6 \overline{) 40} \bar{6} \\ \underline{36} \\ 40 \end{array}$$

Q6) What is the effect of shape of earth on value of 'g'?

The value will decrease as one person goes into a very deep mine inside the earth as the distance of the object would decrease from the earth's centre. So, the shape of earth is important in determining the value of 'g' as the distance from the centre of the earth matters.