

QUES 02:-

In our solar system, the inter-planetary region has chunks of matter (much smaller in size compared to planets) called asteroids. They

- 1) will move in orbits like planets and obey Kepler's laws
- 2) will move in an irregular way because of their small masses and will drift away into outer space.
- 3) will move around the sun in closed orbits but not obey Kepler's laws.
- 4) will not move around the sun since they have very small masses compared to sun.

Sol. 1) will move in orbits like planets and obey Kepler's laws

Like any other planet, asteroids also follow Kepler's law and move in elliptical orbits around the planet due to the central gravitational force acting on them.

a small mass of asteroid does not escape the gravitational force due to the sun because of the large mass of the sun.