

Question # 7 of 10 (Start time: 11:11:27 AM, 19 July 2023)

The analytical condition for a point with radius vector r to be an apse is $dr/d\theta =$

Select the correct option

☐ -2

☐ 0

☐ 1

☐ -1



In a conservative field, the total energy of a particle through the motion

Select the correct option

☐

varies rapidly

☐

none of these

☒

remains constant

☐

does not remain constant



Click to Save Answer & Move to Next Qu

MTH404 - Dynamics (Quiz #3)

Question # 8 of 10 (Start time: 12:41:26 PM, 19 July 2023)

Areal speed of the radius vector r joining the particle to the centre of force is

Select the correct option

☐	variable
☐	not constant
☐	none of these
☐	constant



MTH404 - Dynamics (Quiz #3)

Question # 9 of 10 (**Start time: 12:42:37 PM, 19 July 2023**)

IN defining orbital velocity, thing whis is unimportant is -----.

Select the correct option

☐	radius of Earth
☐	mass of Earth
☐	gravitational force
☐	mass of satellite



Orbit of a particle moving under a central force is necessarily -----

Select the correct option

☒

a plane curve

☐

a straight line

☐

none of these

☐

a space curve

Click to Save Answer & Move to Next Question

Question # 5 of 10 (Start time: 12:39:05 PM, 19 July 2023)

The Planet will describe an ellipse, a parabola or a hyperbola according as total energy per unit mass is -----

Select the correct option

☐

negative, zero or positive

☐

zero, negative or positive

☒

Any of these

☐

positive, negative or zero



Click to Save Answer

MTH404 - Dynamics (Quiz #3)

Question # 4 of 10 (**Start time: 12:38:20 PM, 19 July 2023**)

The length of the radius vector at an apse is known as the apsidal

Select the correct option

☐	acceleration
☒	distance
☐	none of these
☐	velocity

Question # 3 of 10 (Start time: 12:37:25 PM, 19 July 2023)

A force acting on a particle is said to be if its line of action always passes through a fixed point

Select the correct option

☒	central force
☐	none of these
☐	applied force
☐	friction

Click to Save Answer & Move to

MTH404 - Dynamics (Quiz #3)

Question # 10 of 10 (**Start time: 12:43:24 PM, 19 July 2023**)

The line joining an apse to the centre of force is ----- line

Select the correct option

☒

an apse

☐

none of these

☐

an initial

☐

a focal

Question # 2 of 10 (Start time: 12:36:30 PM, 19 July 2023)

The orbit described under a central attractive force varying directly as the distance is ----- have

Select the correct option

☐	an ellipse
☐	a circle
☐	none of these
☐	a straight line



MTH404 - Dynamics (Quiz #3)

Question # 1 of 10 (**Start time: 12:35:42 PM, 19 July 2023**)

The central force is ----- if it is directed towards the centre.

Select the correct option

☐	not attractive
☐	attractive
☒	repulsive
☐	none of these