Assignment 6

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

1) For the Lagrange points $L_1$, $L_2$, and $L_3$, which one of the following options is correct.
   a) The gravitational plus centrifugal forces balance at these points
   b) The gravitational plus Coriolis forces balance at these points
   c) Only the gravitational forces of two primary bodies balance at these points
   d) None of the above

   No. the answer is incorrect.
   Score: 0
   Accepted Answers: a

2) Consider the dynamics of a system is governed by the following nonlinear differential equation:
   \[\frac{d^2 \psi}{dt^2} + \frac{2}{3} \left( x - y \right) = x \left( 1 - x \right) + \frac{1}{y} \]
   The equilibrium points of the system is/are
   a) (0, 1)
   b) (0, 0)
   c) (1, 0)
   d) (0, 0) and (0, 0)

   No. the answer is incorrect.
   Score: 0
   Accepted Answers: c

3) The minimum value of $2U = x^2 + y^2 + 2 \left( x \cdot z \right) + 2 \rho_0^2$ in the restricted coplanar $z = 0$ 3 - body problem is
   a) $3 - \mu (1 - \mu)$
   b) $5 - \mu (1 - \mu)$
   c) $2 - \mu (1 - \mu)$
   d) $6 - \mu (1 - \mu)$

   No. the answer is incorrect.
   Score: 0
   Accepted Answers: b

4) Referring to Question 3, no zero velocity curves exists for
   a) $C < 5 - \mu (1 - \mu)$
   b) $C < 3 - \mu (1 - \mu)$
   c) $C < 2 - \mu (1 - \mu)$
   d) $C < 6 - \mu (1 - \mu)$

   No. the answer is incorrect.
   Score: 0
   Accepted Answers: b

5) Referring to Question 3, the shape of the curves for $C = 3$ will be
   a) vanish
   b) circle
   c) ellipse
   d) annular

   No. the answer is incorrect.
   Score: 0
   Accepted Answers: a