Experiment 7: Centripetal Acceleration

Student Name: _____

Section Number: _____

PRELAB

PRE-LAB Instructions:

Print out this page. Feel free to refer to the lab Instructions and other materials, your physics textbook, other students, etc. to help you to ponder, understand, and work out answers to the following question(s). Show your work & answers in the space(s) provided.

PRE-LAB Questions

1) Draw two free-body diagrams for the rotating mass in this experiment, showing all the forces acting on it when (a) it is revolving at radius r and is attached to the Center Post spring, and (b) it is revolving while hanging but not attached to the spring.

2) Why is it necessary to level the rotating platform? How would the motion of the revolving mass be affected if the base were not level? Explain.

3) Why is it important that the string attached to the revolving mass be parallel to the platform? Explain.