School				Mark (10)
Name		HKID		
Class (No.)		Date		

A6 Moment of Inertia of a Vertical Flywheel

Answers to Preview Questions

1. _____

_____

_____

_____

2. _____
3. _____
4. _____

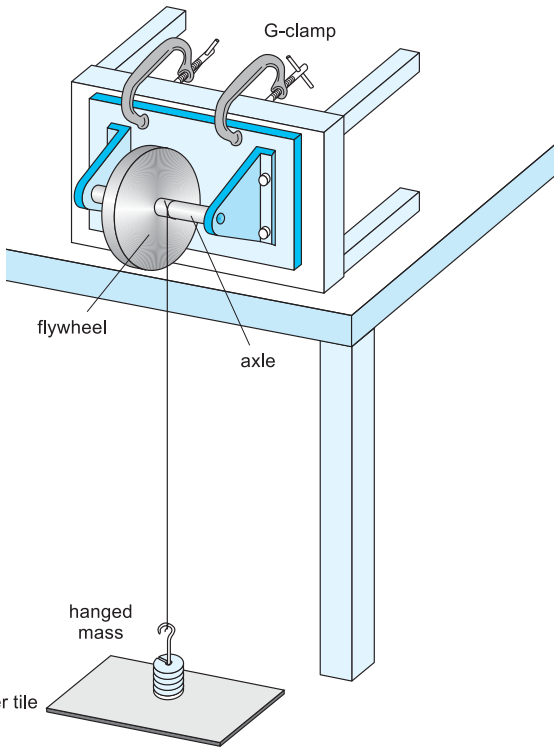
_____

_____

5. _____

_____

Experiment Measuring the moment of inertia of a vertical flywheel



Experiment 1

Teacher's Remark

Experiment Step 2

Diameter, d_1 _____

Diameter, d_2 _____

Mean of diameter _____

Radius of axle, r _____

Uncertainty in measuring d _____

% error in d _____ % error in r _____

Experiment Step 3

Total mass, m _____

Uncertainty in measuring m _____

% error in m _____

Experiment Step 4

How can you ensure that the falling mass exerts its full turning effect on the flywheels?

_____

_____

Experiment Step 6

Number of revolutions in winding up, N _____

Experiment Step 7

Height, h _____

Uncertainty in measuring h _____

% error in h _____

Table 1

	Trial 1	Trial 2	Trial 3	Trial 4	Trial 5	Mean
Falling time, t ( )						
N'						

Experiment Step 10

Uncertainty in measuring t _____

% error in t _____

Teacher's Remark

Data Analysis

1. Calculate the moment of inertia of the flywheel about its axis.

2. Estimate the percent error in *I*.

Answers to Discussion

1.

2.

3.

4.

Teacher's Remark