## LECTURE 3. CENTRIPETAL FORCES

### *REPORTS*

Name:…….

Class:……..

1. **Purpose::……**
   **……**
   **……**
   **……**
   **……**
   **……..**
2. **Results:**

$m_s$ =……. kg (rubber stopper mass)

r = ……m

| Trial | T (s) for 5 revolutions |
|---|---|
| 1 | |
| 2 | |
| 3 | |
| 4 | |
| 5 | |
| Avg. | |

| run | $m_w$ (kg) | avg. T (s) for 5 rev. | avg. t (s) for 1 rev. | ω (rad/s) $\omega = \frac{2\pi}{t}$ | Meas $F_c = m_s\omega^2 r$ | Cal $F_c = F_w = m_w g$ | $\delta = \frac{\lvert Cal - Meas \rvert}{Cal}$ (%) |
|---|---|---|---|---|---|---|---|
| 50 g | | | | | | | |
| 100g | | | | | | | |
| 150g | | | | | | | |

**Notes:**

1. $m_w$ = slotted mass (50g, 100g, 150g, 200g) + mass of hanger

2. Percent error calculation is: $\frac{cal. - meas}{cal.} \cdot 100\%$

=……

**3. Discussion of results**

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