Prelab Questions

These questions need to be completed before entering the lab. Please show all workings.

Marker's Initials

Prelab 1

What is the direction (relative to the plane of the coil) of the magnetic field at the center of a circular coil of wire with current *I*?

Prelab 2

Considering the discussion on the instruction pages, calculate the value of the local magnetic field given the following:
Number of turns, $\boldsymbol{N = 6}$
$\boldsymbol{I = 0.15\ A}$
Diameter of coil $= \boldsymbol{32.6\ cm}$
Deflection angle $= \boldsymbol{27^o}$
Show your workings.

STAPLE YOUR PRE-LAB TO THIS PAGE

Name and Student Number: _____

Date: _____

Partner: _____

QUESTION 1:

QUESTION 2:

Table 1:

Diameter	Uncertainty	Units

Table 2:

Current, I (Units)	**Deflection angle, θ (Units)**	$\tan\theta$

Table 3: **note:** Print a copy of $\tan\theta$ *vs* I graph with correct format.

	Value	**Uncertainty**	**Units**
Slope			

CHECKPOINT:
Verify slope is correct and data is acceptable.

⬅ Staple graph to opposing page

QUESTION 3:

QUESTION 4:

Table 4:	**Value**	δI	**Deflection Angle**
Current 1			
Current 2			

QUESTION 5:

a)

b)

QUESTION 6:

QUESTION 7:

QUESTION 8:

QUESTION 9: