Experimental Competition

5 May 2011

Student Code



Experimental Question 1: Levitation of Conductors in an Oscillating Magnetic Field

ANSWER FORM

| a. | Expression for $\epsilon(t)$: | |
|----|---|--|
| | Expression for $I(t)$: | |
| b. | Expression for B_r in terms of r and $d\Phi_{\rm B}/dz$: | |
| | | |
| c. | Magnitude of α : | |
| | | |
| | | |
| | | |
| d. | Circuit diagram: | |
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| | | |
| | The resistance R_{thin} of the thin ring: | |
| e. | The resistance <i>R</i> of the broad closed ring: | |
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|--|-----|--|--|--|---------|------|--|----|---------|
| i. The inductance <i>L</i> of the broad closed ring: | | | | | | | | | |
| Result tables for parts (f), (g) and (h): | | | | | | | | | |
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