


Answers Exam 3 2018

$$1. \vec{B} = \frac{\mu_0 i}{4} \left(\frac{1}{b} + \frac{1}{a} \right) \otimes$$

$$2. \quad r < A \quad B = \frac{\mu_0 i}{2\pi A^2} r$$


$$r > A \quad B = \frac{\mu_0 i}{2\pi r}$$


$$\oint \vec{B} \cdot d\vec{r} = \frac{\mu_0 i}{2A^2} (b^2 + a^2)$$

$$3a. \quad i = \frac{V}{R}; \vec{F} = iHB_0 \text{ to the right}$$

$$3b. \quad v = \frac{V}{B_0 H} \text{ to the right}$$

$$4. \quad Q(t) = CV e^{-\frac{t}{C(R_1 + R_2)}}$$