

## Page 1: Mathematical Symbols Test

Summation:  $\Sigma(i=1 \text{ to } n) x_i$

Integration:  $\int[a,b] f(x)dx$

Greek letters:  $\alpha \beta \gamma \delta \theta \lambda \mu \pi \sigma \omega$

Operators:  $\pm \times \div \approx \neq \leq \geq \infty$

Sets:  $\in \notin \subseteq \cup \cap$

Gradient:  $\nabla f(x,y,z)$

Partial derivative:  $\partial f / \partial x$

## Page 2: Physics Equations with Symbols

Maxwell:  $\nabla \times \mathbf{B} = \mu_0 \mathbf{J} + \mu_0 \epsilon_0 \frac{\partial \mathbf{E}}{\partial t}$

Gauss law:  $\nabla \cdot \mathbf{E} = \rho / \epsilon_0$

Schrodinger:  $i \hbar \frac{\partial \psi}{\partial t} = \hat{H} \psi$

Wave function:  $\int |\psi|^2 dx = 1$

Energy:  $E = mc^2 \pm \Delta E$

Planck:  $E = \hbar \omega$  where  $\omega \neq 0$

Statistical:  $\langle x \rangle = \sum p_i x_i$