### TABLE OF INFORMATION

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rest mass of the electron</td>
<td>$m_e = 9.11 \times 10^{-31}$ kilogram = $9.11 \times 10^{-28}$ gram</td>
</tr>
<tr>
<td>Magnitude of the electron charge</td>
<td>$e = 1.60 \times 10^{-19}$ coulomb = $4.80 \times 10^{-10}$ statcoulomb (esu)</td>
</tr>
<tr>
<td>Avogadro's number</td>
<td>$N_A = 6.02 \times 10^{23}$ per mole</td>
</tr>
<tr>
<td>Universal gas constant</td>
<td>$R = 8.31$ joules/(mole $\cdot$ K)</td>
</tr>
<tr>
<td>Boltzmann's constant</td>
<td>$k = 1.38 \times 10^{-23}$ joule/K = $1.38 \times 10^{-16}$ erg/K</td>
</tr>
<tr>
<td>Speed of light</td>
<td>$c = 3.00 \times 10^8$ m/s = $3.00 \times 10^{10}$ cm/s</td>
</tr>
<tr>
<td>Planck's constant</td>
<td>$h = 6.63 \times 10^{-34}$ joule $\cdot$ second = $4.14 \times 10^{-15}$ eV $\cdot$ second</td>
</tr>
<tr>
<td>$\hbar = h/2\pi$</td>
<td></td>
</tr>
<tr>
<td>Vacuum permitivity</td>
<td>$\varepsilon_0 = 8.85 \times 10^{-12}$ coulomb$^2/(newton \cdot meter^2)$</td>
</tr>
<tr>
<td>Vacuum permeability</td>
<td>$\mu_0 = 4\pi \times 10^{-7}$ weber/(ampere $\cdot$ meter)</td>
</tr>
<tr>
<td>Universal gravitational constant</td>
<td>$G = 6.67 \times 10^{-11}$ meter$^3/(kilogram \cdot second^2)$</td>
</tr>
<tr>
<td>Acceleration due to gravity</td>
<td>$g = 9.80$ m/s$^2 = 980$ cm/s$^2$</td>
</tr>
<tr>
<td>1 atmosphere pressure</td>
<td>1 atm = $1.0 \times 10^5$ newtons/meter$^2$ = $1.0 \times 10^5$ pascals (Pa)</td>
</tr>
<tr>
<td>1 angstrom</td>
<td>1Å = $1 \times 10^{-10}$ meter</td>
</tr>
<tr>
<td>1 weber/m$^2$</td>
<td>= 1 tesla = $10^4$ gauss</td>
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</tbody>
</table>

Moments of inertia about center of mass

- **Rod**: $\frac{1}{12} ML^2$
- **Disc**: $\frac{1}{2} MR^2$
- **Sphere**: $\frac{2}{5} MR^2$
<table>
<thead>
<tr>
<th>Raw Score</th>
<th>Scaled Score</th>
<th>%</th>
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<th>Scaled Score</th>
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<td>97</td>
<td>30-31</td>
<td>690</td>
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*Percent scoring below the scaled score is based on the performance of 11,322 examinees who took the Physics Test between October 1, 1993 and September 30, 1996. This percent below information was used for score reports during the 1997-98 testing year.