

BMAT Physics Formula Sheet

ELECTRICITY

$$I = \frac{Q}{t}$$

$$V = \frac{E}{Q}$$

$$V = IR$$

$$P = IV = I^2R = \frac{V^2}{R}$$

$$E = ItV$$

$$R_T = \frac{\text{product}}{\text{sum}} \text{ (Two resistors in parallel)}$$

$$R_T = \frac{R_1}{n} \text{ (For } n \text{ identical resistors in parallel)}$$

$$\frac{R_1}{R_2} = \frac{V_1}{V_2} \text{ (Series Circuits)}$$

$$\frac{n_1}{n_2} = \frac{V_1}{V_2} \text{ (Transformers)}$$

WAVES

$$c = f\lambda$$

Angle of Incidence = Angle of Reflection

MECHANICS & MATTER

$$v = \frac{s}{t} = \frac{\text{distance}}{\text{time}}$$

$$a = \frac{v - u}{t}$$

$$W = mg$$

$$F = ma$$

$$E = Fd$$

$$P = \frac{E}{t} \text{ (Power)}$$

$$P = \frac{F}{A} \text{ (Pressure)}$$

$$\Delta GPE = mg\Delta h$$

$$KE = \frac{1}{2}mv^2$$

$$p = mv$$

$$\rho = \frac{m}{v}$$

$$\text{Efficiency} = \frac{\text{Useful energy out}}{\text{Total energy in}}$$

RADIOACTIVITY

