***Final Exam Formula Sheet***

**Momentum and Impulse**

p=mv

J=Ft

Ft = m(vf – vi)

Ft = mvf - mvi

m1v1i + m2v2i = m1v1f + m2v2f

m1v1i + m2v2i = (m1 + m2)vf

0 kgm/s = m1v1f + m2v2f

**Waves**

λ = v/f

v = λf

f= v/λ

f = 1/T

T = 1/f

$$T=2π\sqrt{L}/g$$

F = -kx

PEspring= ½ kx2

L = n/2 λ

**Light and Optics**



**Electricity**

F = kq1q2/d2

V = IR