Year 11 Physics

Sem. 1 Exam 2016

**Format**

Reading Time: 10 mins

Working Time: 3 hrs

**Structure**

Section 1: 15 short-answer questions

Section 2: 6 problem-solving questions

Section 3: 1 reading comprehension - 6 questions

**Areas of Study**

***Measurement***

• Absolute and percent uncertainties.

• Graphing - drawing, line of best-fit, gradient, calculations based on gradient.

***Movement***

• Vectors - one and two-dimensional.

• Equations of motion - vertical and horizontal movement.

• Graphs - area underneath, gradients, drawing graphs to represent motion.

• Newton's Laws - inertia, acceleration and forces, lift problems.

• Impulse and change in momentum.

• Applications - airbags, sports shoes, etc.

• Conservation of momentum.

• Conservation of energy.

• Work and power.

***Heating and Cooling***

• Kinetic Theory.

• Applications - conduction, convection, radiation.

• Change of temperature - specific heat.

• Change of phase - latent heat.

• Method of mixtures- Qlost = Qgained

• Power - rate of supply of heat.

• Efficiency calculations.