

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- $Q_{\text{lost}} = Q_{\text{gained}}$
- Power - rate of supply of heat.
- Efficiency calculations.