

Paper	Topic	Q No.	Question
Phys 2	P8: Forces in balance	P8.1	What do we call the force that tries to prevent movement over a solid?
Phys 2	P8: Forces in balance	P8.2	What is the normal contact force?
Phys 2	P8: Forces in balance	P8.3	[HT] Write the explanation for resolving forces
Phys 2	P8: Forces in balance	P8.4	What do you call the force that you have if you replaced all the forces on an object with one single force?
Phys 2	P8: Forces in balance	P8.5	What is a vector quantity?
Phys 2	P8: Forces in balance	P8.6	What do we call forces that require particles to be touching for them to have an effect?
Phys 2	P8: Forces in balance	P8.7	Where will the centre of mass be if you hang an object from a pivot?
Phys 2	P8: Forces in balance	P8.8	Name the 3 non-contact forces
Phys 2	P8: Forces in balance	P8.9	What is the centre of mass?
Phys 2	P8: Forces in balance	P8.10	What angle to the surface does the normal contact force always act at?
Phys 2	P8: Forces in balance	P8.11	If the forces on an object are balanced, what 2 things could the object be doing?
Phys 2	P8: Forces in balance	P8.12	What is another word for magnitude of a quantity?
Phys 2	P8: Forces in balance	P8.13	What is a scalar quantity?
Phys 2	P8: Forces in balance	P8.14	What is a force and what are its units?
Phys 2	P8: Forces in balance	P8.15	What energy is transferred during friction?
Phys 2	P8: Forces in balance	P8.16	What is Newton's first law?
Phys 2	P8: Forces in balance	P8.17	[HT] Draw a free body force diagram of a person sitting on a chair
Phys 2	P8: Forces in balance	P8.18	[HT] Draw and label a parallelogram of forces
Phys 2	P8: Forces in balance	P8.19	What is Newton's third law?
Phys 2	P8: Forces in balance	P8.20	What is mass and what units is it measured in?
Phys 2	P8: Forces in balance	P8.21	What do we call any force that makes a vehicle move?
Phys 2	P8: Forces in balance	P8.22	What is weight and what units is it measured in?
Phys 2	P8: Forces in balance	P8.23	What do we call the final distance away from the start point in a straight line?
Phys 2	P8: Forces in balance	P8.24	What is the equation relating weight and mass?
Phys 2	P8: Forces in balance	P8.25	What must the resultant force be if all forces are balanced?
Phys 2	P9: Motion	P9.1	Sketch a velocity-time graph for a stationary object
Phys 2	P9: Motion	P9.2	How do you calculate gradient of a straight line?
Phys 2	P9: Motion	P9.3	What do we call any change in velocity, either speed or distance?
Phys 2	P9: Motion	P9.4	What is velocity?
Phys 2	P9: Motion	P9.5	Sketch a distance-time graph for an object moving at constant low speed
Phys 2	P9: Motion	P9.6	Sketch a velocity-time graph for an object moving at constant high speed
Phys 2	P9: Motion	P9.7	What are the typical speeds of walking, running, cycling and sound waves?
Phys 2	P9: Motion	P9.8	Sketch a velocity-time graph for an object accelerating at low constant rate
Phys 2	P9: Motion	P9.9	[HT] What sort of graph has an area underneath that represents velocity?
Phys 2	P9: Motion	P9.10	What are the units of acceleration?
Phys 2	P9: Motion	P9.11	What sort of graph has a gradient that represents speed?
Phys 2	P9: Motion	P9.12	Sketch a distance-time graph for an object accelerating
Phys 2	P9: Motion	P9.13	Sketch a distance-time graph for a stationary object
Phys 2	P9: Motion	P9.14	Sketch a velocity-time graph for an object moving at constant low speed
Phys 2	P9: Motion	P9.15	What is the equation for speed?
Phys 2	P9: Motion	P9.16	What is a scalar quantity?
Phys 2	P9: Motion	P9.17	What sort of graph has a gradient that represents acceleration?
Phys 2	P9: Motion	P9.18	What is the equation for acceleration?
Phys 2	P9: Motion	P9.19	Sketch a velocity-time graph for an object accelerating at high constant rate
Phys 2	P9: Motion	P9.20	Sketch a graph with a curved line and draw a tangent at any point
Phys 2	P9: Motion	P9.21	Sketch a velocity-time graph for an object decelerating at constant rate
Phys 2	P9: Motion	P9.22	What is gravitational acceleration on Earth?
Phys 2	P9: Motion	P9.23	Sketch a distance-time graph for an object moving at constant high speed
Phys 2	P9: Motion	P9.24	What do we call it when acceleration is negative?
Phys 2	P9: Motion	P9.25	What is a vector quantity?
Phys 2	P10: Forces and motion	P10.1	What is braking distance?
Phys 2	P10: Forces and motion	P10.2	What are the units of acceleration?
Phys 2	P10: Forces and motion	P10.3	What is mass and what units is it measured in?
Phys 2	P10: Forces and motion	P10.4	List 3 factors that affect a drivers reaction time?
Phys 2	P10: Forces and motion	P10.5	What is the equation relating force, mass and acceleration?
Phys 2	P10: Forces and motion	P10.6	What happens to forces as a falling object reaches terminal velocity?
Phys 2	P10: Forces and motion	P10.7	What is Hooke's Law for a spring?
Phys 2	P10: Forces and motion	P10.8	What are the units of momentum?
Phys 2	P10: Forces and motion	P10.9	If something is inelastic, what does that mean?
Phys 2	P10: Forces and motion	P10.10	What must the resultant force be if all forces are balanced?
Phys 2	P10: Forces and motion	P10.11	What is the law of conservation of momentum?
Phys 2	P10: Forces and motion	P10.12	[HT] What is inertia?
Phys 2	P10: Forces and motion	P10.13	What is Newton's second law?
Phys 2	P10: Forces and motion	P10.14	What do we call the maximum velocity of a falling object?
Phys 2	P10: Forces and motion	P10.15	What do we call the time it takes a person to react to a stimulus?
Phys 2	P10: Forces and motion	P10.16	What is the equation for momentum?
Phys 2	P10: Forces and motion	P10.17	If something is elastic, what does that mean?
Phys 2	P10: Forces and motion	P10.18	What is gravitational field strength on Earth?
Phys 2	P10: Forces and motion	P10.19	What is the equation for stopping distance?
Phys 2	P10: Forces and motion	P10.20	What does a directly proportional graph look like?
Phys 2	P10: Forces and motion	P10.21	What is thinking distance?
Phys 2	P10: Forces and motion	P10.22	How do you calculate the spring constant from an extension vs force graph for a spring?
Phys 2	P10: Forces and motion	P10.23	[HT] What is the inertial mass of an object related to?
Phys 2	P10: Forces and motion	P10.24	What is the equation for acceleration?
Phys 2	P10: Forces and motion	P10.25	List 2 factors that affect a braking distance?
Phys 2	P11: Wave properties	P11.1	Sketch a wave and label wavelength and amplitude
Phys 2	P11: Wave properties	P11.2	What are reflected sound waves called?
Phys 2	P11: Wave properties	P11.3	[HT] Draw a ray diagram demonstrating the law of reflection
Phys 2	P11: Wave properties	P11.4	What is a vacuum and where is the biggest vacuum in the Universe?
Phys 2	P11: Wave properties	P11.5	What 3 things do all waves do?
Phys 2	P11: Wave properties	P11.6	Describe the oscillations of a transverse wave
Phys 2	P11: Wave properties	P11.7	What sort of waves are sound waves?
Phys 2	P11: Wave properties	P11.8	Sketch a longitudinal wave
Phys 2	P11: Wave properties	P11.9	What is frequency and its units?
Phys 2	P11: Wave properties	P11.10	A prefix M before a unit tell us something important, what is 6MHz in Hz?

Phys 2	P11: Wave properties	P11.11	What is the amplitude of a wave and its units?
Phys 2	P11: Wave properties	P11.12	Sketch a transverse wave
Phys 2	P11: Wave properties	P11.13	What is an oscillation?
Phys 2	P11: Wave properties	P11.14	List 2 examples of transverse waves
Phys 2	P11: Wave properties	P11.15	What type of waves need particles to move?
Phys 2	P11: Wave properties	P11.16	List the waves of the EM spectrum
Phys 2	P11: Wave properties	P11.17	What is the wavelength of a wave and its units?
Phys 2	P11: Wave properties	P11.18	List 3 devices we can use to observe waves
Phys 2	P11: Wave properties	P11.19	List 1 example of a longitudinal waves
Phys 2	P11: Wave properties	P11.20	What is the wave equation?
Phys 2	P11: Wave properties	P11.21	Describe the oscillations of a longitudinal wave
Phys 2	P11: Wave properties	P11.22	What is the time period of waves and its units?
Phys 2	P11: Wave properties	P11.23	What are the 2 types of wave?
Phys 2	P11: Wave properties	P11.24	A prefix k before a unit tell us something important, what is 7kHz in Hz?
Phys 2	P11: Wave properties	P11.25	What is the name of the family of waves that can travel through a vacuum at 300 000km/s?
Phys 2	P12: Electromagnetic waves	P12.1	[HT] What causes refraction?
Phys 2	P12: Electromagnetic waves	P12.2	What are the dangers of x-rays and gamma rays?
Phys 2	P12: Electromagnetic waves	P12.3	What are ultraviolet rays used for?
Phys 2	P12: Electromagnetic waves	P12.4	What happens to objects when they absorb waves?
Phys 2	P12: Electromagnetic waves	P12.5	List the waves of the EM spectrum
Phys 2	P12: Electromagnetic waves	P12.6	Describe the oscillations of a transverse wave
Phys 2	P12: Electromagnetic waves	P12.7	Which colour and texture of surface are worst absorbers and emitters of infrared radiation?
Phys 2	P12: Electromagnetic waves	P12.8	What is the wave equation?
Phys 2	P12: Electromagnetic waves	P12.9	Which colour and texture of surface are best emitters of infrared radiation?
Phys 2	P12: Electromagnetic waves	P12.10	Which electromagnetic wave is used in fibre optic communication?
Phys 2	P12: Electromagnetic waves	P12.11	Which electromagnetic wave is emitted by hot objects?
Phys 2	P12: Electromagnetic waves	P12.12	Which EM wave has the highest frequency?
Phys 2	P12: Electromagnetic waves	P12.13	What is the name of the family of waves that can travel through a vacuum at 300 000km/s?
Phys 2	P12: Electromagnetic waves	P12.14	Sketch a wave and label wavelength and amplitude
Phys 2	P12: Electromagnetic waves	P12.15	[HT] Sketch a ray diagram showing light refracting through a glass block
Phys 2	P12: Electromagnetic waves	P12.16	Which electromagnetic wave is used for satellite communication and cooking?
Phys 2	P12: Electromagnetic waves	P12.17	Which colour and texture of surface are best absorbers of infrared radiation?
Phys 2	P12: Electromagnetic waves	P12.18	What are the dangers of ultraviolet rays?
Phys 2	P12: Electromagnetic waves	P12.19	Which 3 electromagnetic waves are ionising?
Phys 2	P12: Electromagnetic waves	P12.20	Where are x-rays and gamma rays used?
Phys 2	P12: Electromagnetic waves	P12.21	What is the relationship between energy of waves and their frequency?
Phys 2	P12: Electromagnetic waves	P12.22	[HT] What are carrier waves used for?
Phys 2	P12: Electromagnetic waves	P12.23	Which EM wave is longest with a length of about 1000m?
Phys 2	P12: Electromagnetic waves	P12.24	What is frequency and its units?
Phys 2	P12: Electromagnetic waves	P12.25	Which electromagnetic wave has no known dangers?
Phys 2	P13: Electromagnetism	P13.1	If you pass a current through a wire what does it become?
Phys 2	P13: Electromagnetism	P13.2	Sketch the Earth and draw the magnetic field around it
Phys 2	P13: Electromagnetism	P13.3	In Fleming's left hand rule, what value is represented by the direction of your index finger?
Phys 2	P13: Electromagnetism	P13.4	List 3 things you can do to increase the strength of an electromagnet
Phys 2	P13: Electromagnetism	P13.5	Which magnetic poles repel?
Phys 2	P13: Electromagnetism	P13.6	[HT] What is another name for the magnetic field and what units is it measured in?
Phys 2	P13: Electromagnetism	P13.7	[HT] How does an electric motor work?
Phys 2	P13: Electromagnetism	P13.8	Sketch the magnetic field lines around a bar magnet
Phys 2	P13: Electromagnetism	P13.9	[HT] What 3 things can you do to increase the force induced in a motor?
Phys 2	P13: Electromagnetism	P13.10	In Fleming's left hand rule, what value is represented by the direction of your middle finger?
Phys 2	P13: Electromagnetism	P13.11	What rule allows you to predict the direction of an induced force on a current carrying wire in a magnetic field?
Phys 2	P13: Electromagnetism	P13.12	What is an induced magnet?
Phys 2	P13: Electromagnetism	P13.13	Which magnetic poles attract?
Phys 2	P13: Electromagnetism	P13.14	Where is a magnetic field strongest?
Phys 2	P13: Electromagnetism	P13.15	Where is the magnetic field strong and uniform when you pass a current through a solenoid?
Phys 2	P13: Electromagnetism	P13.16	What angle must a wire be at to feel a force in a magnetic field?
Phys 2	P13: Electromagnetism	P13.17	According to Fleming's Left Hand rule, what is the angle between motor effect force, magnetic field and current?
Phys 2	P13: Electromagnetism	P13.18	In Fleming's left hand rule, what value is represented by the direction of your thumb?
Phys 2	P13: Electromagnetism	P13.19	List the 4 magnetic materials
Phys 2	P13: Electromagnetism	P13.20	[HT] What are the units of the variable in this motor effect formula: $F = B \times I \times l$?
Phys 2	P13: Electromagnetism	P13.21	What is the name for a coil of wire?
Phys 2	P13: Electromagnetism	P13.22	[HT] What is the role of the commutator in an electric motor?
Phys 2	P13: Electromagnetism	P13.23	What type of magnet has its own magnetic field?
Phys 2	P13: Electromagnetism	P13.24	What does the magnetic field outside a solenoid look similar to?
Phys 2	P13: Electromagnetism	P13.25	What is the name of the effect where a wire carrying a current through a magnetic field at a right angle feels a force?