



Mighty Physics Final Review



Although you may use your notes on the Final Exam, there is insufficient time to look up very much. You MUST know your stuff for this exam!!!

Practice your notes in writing! Here are some things to be sure you know:

Practice in writing each type of physics problem. For Example:

Wave Equations:
 Frequency
 Wave Length
 Period
 Speed of Waves
 Doppler Shift
 Open tube resonator
 Closed tube Resonator
 Harmonics

Light
 Illumination of Light
 Intensity of Light
 Mirror Equations
 Lens Equations
 Snell's Law Refraction
 Index of Refraction
 Coulomb's Law
 Ohm's Law
 Capacitance
 Parallel capacitors
 Series capacitors

Kirchhoff's Laws
 Series circuits
 Parallel circuits
 Cells & Batteries
 In series
 In parallel
 In multiple
 Resistors
 In series
 In parallel
 Laws of Resistance
 Joule's Law

Power in Electricity
 Faraday's Law
 Alternating Current
 Transformer Problems
 Inductive Reactance
 Capacitive Reactance
 Impedance
 Power Factor
 Phase Angle
 Resonance
 Angle of Lead or Lag

Terms: Be able to Define, Explain, and Provide Examples for these terms:

Simple Harmonic Motion
 Reference Circle
 Wave definition
 Amplitude
 Wave Length
 Frequency
 Period
 Speed
 Mechanical wave
 Electromagnetic Wave
 Transverse Wave
 Crest
 Trough
 Longitudinal Wave
 Compression
 Rarefaction
 Reflection
 Impedance
 Refraction
 Diffraction
 Superposition Principle
 Harmonics
 Interference
 Constructive
 Destructive
 Standing Wave
 Sound Definition
 Sonic Spectrum
 Production of Sound
 Transmission of Sound
 Intensity of Sound
 Loudness of Sound
 Decibel Scale
 Frequency of Sound
 Pitch of Sound
 The Doppler Effect
 Harmonics of Sound
 Quality of Sound
 The Laws of Strings
 Resonance of Sound
 Open Tube Resonators
 Closed Tube Resonators
 Definition of Light
 Propagation of Light
 Rectilinear Propagation
 Corpuscular Theory
 Wave Theory

The Photoelectric Effect
 The Quantum Theory
 The Laser
 Pressure of Light
 Illumination
 Speed of Light Km/sec
 Roemer's Method
 Michelson's Method
 Umbra
 Penumbra
 Eclipse of Moon
 Eclipse of Sun
 Phases of Moon
 Intensity of Light
 Illumination of Light
 Inverse Square Law
 Seasons
 Reflection of Light
 Law of Reflection
 Diffuse Light
 Plane Mirrors
 Convex Mirrors
 Concave Mirrors
 Mirror Constructions
 Real Images
 Virtual Images
 The Phantom Image
 Total Reflection
 Refraction
 Law of Refraction
 Index of Refraction
 Types of Lenses
 Converging
 Diverging
 Lens Constructions
 Focal Point
 Aberration
 Telescopes
 Refracting
 Reflecting
 Dispersion
 The Visible Spectrum
 Colour
 Primaries of Light
 Primaries of Pigment
 Complementary colors
 Chromatic Aberration

Interference of Light
 Constructive
 Destructive
 Thin Film Interference
 Diffraction Grating
 Polarization
 Scattering
 Red Sunsets
 Blue Skies
 Mirages
 Electricity
 Electroscopes
 Law of Charges
 Conductor
 Insulator
 Charging by Contact
 Charging by Induction
 Coulomb's Law
 Potential Difference
 Voltage
 Capacitor
 Dielectric Materials
 Charging Capacitors
 Sources of emf
 Direct Current
 Ohm's Law
 Symbols of Electricity
 Thermocouple
 Electrochemical Cell
 Battery of Cells
 Cells in Series
 Cells in Parallel
 Cells in Multiple
 Kirchhoff's Laws
 Resistors in Series
 Resistors in Parallel
 In Series-Parallel
 The Wheatstone Bridge
 Heating Effects
 Joule's Law
 Power in Electricity
 Units of Electricity
 Coulomb
 Volt
 Ampere
 Watt
 Ohm

Mho
 Henry
 Farad
 Electrolysis
 Faraday's Laws
 Magnetism
 Domain Theory
 Evidences for Domains
 Inverse Square Law
 Magnetic Lines of Force
 Permeability
 Earth's Magnetic Field
 Compass
 Dipping Needle
 Deviation
 Variation
 Declination
 Current --> Magnetism
 Cut mag field--> Current
 Galvanometer
 Ammeter
 Voltmeter
 Ammeter
 Wattmeter
 Solenoid
 Curie Point
 Induction
 Generator
 Motor
 Commutator
 AC Motor
 Induction Coil
 Transformer
 Back emf
 Magneto
 Lenz's Law
 Alternating Current
 Root Mean Square
 Hot Wire Meter
 Inductance
 Inductive Reactance
 Capacitance
 Capacitive Reactance
 Impedance
 Phase Angle
 Resonance
 Choke Coil

Power Factor
 Actual Power
 Ohm's Law for AC
 Three Phase Power
 Thermionic Emission
 Vacuum Tube Rectifier
 Vacuum Tube Amplifier
 Half-Wave Rectification
 Full-Wave Rectification
 Cathode Ray Tube
 Solid State Diode
 Transistor
 P-Type
 N-Type
 Photovoltaic Cell
 The Electron
 The Tube Sparky
 The Tube of Crookes
 Sir JJ Thompson Tube
 Paddle Wheel Tube
 Charge to Mass Ratio
 Millikan Oil Drop
 Mass of Electron
 Size of the Atom
 Canal Ray Tube
 Ions & the Proton
 The Mass Spectrograph
 Isotopes
 Gold Foil Experiment
 Size of the Nucleus
 The Neutron
 Radioactivity discovered
 Rays of Radioactivity
 Properties/Radioactivity
 Nuclear Reactions
 Nuclear Fission
 Nuclear Fusion
 Nuclear Reactor
 Parts of Nuclear reactor
 Nuclear Bomb
 Particle Accelerators
 Bubble Chamber
 Spark Chamber
 Cloud Chamber
 Sub-Atomic Particles
 Anti Matter
 Relativity