



## Final Exams : June 2011

Please place on this sheet the contents of your course that you will be examining in your Final Exam. Details are expected. Chapter numbers, section headings and the like. Please type using this template and then email the template to me using all the syntax details from the PDF filename that I have spelt out in the email that this came attached to.

Teacher : Sami Nass	Subject : Physics 10A
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### Chapter 1: **Electrostatics.**

Quantity of charge. Number & charge of electrons.  
Forces of Interaction between charges.  
Distribution & Conservation of charge.

### Chapter 2: **Potential Difference.**

Flow of charge.  
Presence of voltage.  
Law of addition of voltages.

### Chapter 3: **Electric Current.**

Flow of charges & electricity in solid & liquid conductors.  
Sense of the electric current.  
Junction rule. (Splitting of the current)

### Chapter 4: **Resistors.**

Grouping in series & in parallel.  
Plotting Voltage-Current characteristic.  
Voltage across resistors.  
Colour Code.

### Chapter 5: **Generators & Receivers.**

Plotting Voltage-Current characteristics of both generators & receivers.  
Identifying their characteristics; e.m.f & b.e.m.f & their internal resistance.  
Useful & total power of both.  
Efficiency of both.

### Chapter 6: **Electric Circuits.**

Placing generators & receivers in one circuit.  
Pouillet's Law.

**Chapter 7: Kinematics – Rectilinear Motion of Particles**

Uniform & Accelerated motions.

Areas under curves.

Motion of Pucks on air tables.

Instantaneous & Average velocities.

Time equation.

g-forces.

**Chapter 8: Forces.**

Vectorial addition of Forces.

**Chapter 9: Dynamics - Newton's Laws**

Principle of Inertia.

Fundamental Principle of Dynamics.

Principle of Interaction.

**Chapter 10: Inclined Planes**

Decomposition of motion along one axis.

**Chapter 11: Newton's gravitational law**

Universal law of gravity

Gravitational pull versus altitude.