



## Mid Year Exams : February 2012

Please place on this sheet the contents of your course that you will be examining in your Mid Year Exam. Details are expected. Chapter numbers, section headings and the like. Please type using this template and then email the template to me using the following syntax in the Subject header of the email : MYEContent : Subject. Each email may contain as many of these sheets as is necessary. Each sheet should be in PDF format and named with the following syntax : MYEC\_20112012\_Class\_Subject.pdf. Thus Jackie would have one called : MYEC\_20112012\_6A\_Maths.PDF

Teacher : Sami Nass

Subject : Physics 11S

### Chapter 1: **Stroboscopy.**

Use of stroboscopes.  
Persistence of vision.  
In-phase & in-opposition of phase motion.

### Chapter 2: **Superposition of waves.**

Longitudinal & Transverse waves.  
Interference of waves  
Constructive & destructive superposition.  
Resonance.  
Melde's experiment (nodes & antinodes)

### Chapter 3 : **Emission, Propagation & Reception of sound.**

Emission of sound by humans & by loudspeakers.  
Propagation of sound in different mediums. (Gases, liquids...).  
Reception of sound by the human ear & by microphones.  
Functioning of Loudspeakers & Microphones.  
Applications of Infrasound & Ultrasounds. (Piezoelectric ...)

### Chapter 4: **Kinematics.**

Trajectories.  
Displacement, Position, Velocity & Acceleration Vectors.  
Normal & Tangential accelerations.  
Circular Motion. Centripetal & Centrifugal Accelerations.

### Chapter 5: **Statics**

### Chapter 6: **Dynamics**

Newton's Second Law  
"g"-Forces.  
Centripetal & centrifugal forces

Chapter 7: **Projectiles.**

Chapter 8: **Mechanical Energy**

Kinetic + Elastic + Gravitational.

Conservation of Mechanical Energy.

Work & Friction.