Syllabus - EAID CAA Placement Test	
Physics	
Topics:	
1	**Dimensional formula, Velocity -height problems, average speed**
2	**Projectile motion-maximum height, range**
3	**Newton's laws, Force, work done on the object**
4	**Centripetal acceleration, change in momentum of the object**
5	**Thermodynamics, Definitions; An adiabatic process, temperature of the system internal energy, average kinetic energy of its molecules, heat capacity, second law of thermodynamics, The efficiency of a heat engine, entropy**
6	**An electric circuit problems (series and parallel connections), Current and charge problems, power dissipation, Ohms Law**
7	**Calculation of the electric flux through the surface, magnetic field, solenoid, Gauss's Law definition (electrostatic and magnetostatic), Lenz law, Faraday law**
8	**Optics, Diffraction, lens concepts, focal point definition, refractive index definition**
9	**Waves, relationship between speed, frequency and wavelength (numerical problems)**
10	**Definitions and applications: Gravitational force, Interference, Heisenberg Uncertainty Principle, Pauli Exclusion Principle, Planck's Principle, photoelectric effect, Work function, nuclear fusion, nuclear fission, Alpha decay, Beta decay.**