Engineering Studies 5 Aeronautical Engineering - Part 1

1.	**aerodynamics**	the branch of science that deals with the motion of bodies is relative to the atmosphere surrounding them
2.	**airfoil**	aerodynamic surfaces designed to obtain lift from the air through which they move
3.	**airspeed**	the speed of an aircraft relative to the surrounding atmosphere
4.	**altimeter**	an instrument which senses changing air pressure in order to measure altitude
5.	**angle of attack**	the angle an aircraft's wings and body make relative to its flight path
6.	**anodising**	coating metal (mostly aluminium) with a protective oxide layer by an electrolytic process in which the metal forms the anode; the coating may be coloured by dye
7.	**Bernoulli's principle**	this is an explanation of the relationship between a fluid's kinetic energy (movement) and its potential energy (pressure); it states that any increase in a fluid's speed will also be accompanied by a corresponding reduction in pressure
8.	**camber**	the amount of curve on the outer surface of an airfoil section
9.	**chord**	the imaginary line drawn through the cross-section of an airfoil that joins the centre of the leading edge to the trailing edge
10.	**composites**	these are multi-phase materials formed from a combination of materials which differ in composition or form; remaining bonded together, these individual components of composites combine to improve upon the original properties of the component materials; composites include fibrous, laminar and particulate materials or combinations of any of the above
11.	**corrosion**	corrosion is the chemical or electrochemical reaction leading to the gradual deterioration of a material and its properties; in aviation, pitting, crevice and stress cracking corrosion are the most pervasive
12.	**creep**	the slow permanent deformation of a material when subjected to stresses over an extended period of time
13.	**digital pre-assembly**	a term coined by the Boeing corporation for the virtual assembly and testing of parts before proceeding to manufacturing
14.	**drag**	the resistive force a body has to motion through the air
15.	**duralumin**	the trade name of an aluminium alloy containing varying degree's of copper, manganese and magnesium
16.	**dynamic pressure**	speed of a body relative to the surrounding air
17.	**elevator**	a hinged section of the horizontal stabiliser adding or subtracting life from the tail
18.	**empennage**	the tail assembly of an aircraft, including stabilising and control surfaces
19.	**fibre**	a slender thread of a natural or synthetic material, such as optical or carbon fibres
20.	**fuselage**	main structural part of the aircraft to which the wings and tail section are attached