

Engineering Studies 6 Aeronautical Engineering - Part 2 Study online at $quizlet.com/_24qqbe$

1. ground speed	speed of the aircraft relative to the Earth's surface
hydrostatic pressure	pressure produced by the weight of all the molecules in the air at a particular height
3. jet engine	an engine that develops thrust by ejecting an exhaust of gaseous combustion products
4. Kevlar	a synthetic aramid fibre of high tensile strength and head resistance used as a reinforcing agent in many composites
5. lift	the upward force perpendicular to the aircraft's flight path
6. non- destructive testing	procedures that gather information remotely (such as thermography and vibration monitoring) or by surface-based examination techniques 9such as radiography, ultrasonics, eddy current, dye penetrant and magnetic particle inspection)
7. pitot/total pressure	this consists of both static and dynamic pressure
8. precipitation hardening	increasing the hardness of a supersaturated solid solution by heat treating it to cause a second phase to precipitate out
9. ramjet	engine using the forward motion of the craft to compress incoming air before combustion
10. rocket	a projectile powered by onboard chemical fuels
11. rotary wing	a type of aircraft that is supported in the air wholly by wings or blades rotating about a central vertical axis
12. rudder	the primary control surface in yaw (sideways movement), usually hinged and attached to the trailing edge of the vertical stabiliser on the aircraft's tail
13. scramjet	a faster supersonic variant of the ramjet engine
14. simultaneous engineering	(also known as concurrent engineering) a team-based, collaborative approach to new product design and development aimed at reducing design cycle time
15. static pressure	measured through the use of static vent, static pressure is the pressure of the atmosphere without any relative movement
16. stress raiser	stress raisers can be scratches, grooves, machining marks, design faults or any structural discontinuity causing concentration of stress

17. superalloy	nickel-chromium-iron, nickel-chromium- molybdenum-iron and nickel-chromium-cobalt alloys selected for their high temperature strength, creep and corrosion resistance
18. thrust	the driving force propelling an aircraft forward
19. transition piece	transition pieces are three-dimensional objects required to connect two different sections of different shapes or varying sizes
20. turboprop	turboprop aircraft use a gas turbine engine to drive a propeller; reduction gearing is used to reduce the top speed of the propeller to improve efficiency and reduce noise