

PRINCIPLES OF FLIGHT

- 1) "When once you have tested flight, you will forever walk the earth with your eyes turned skyward, for there you have been, and there you will always long to return." said by _____
- 2) It is essential to have a basic knowledge of elementary mechanics to understand the various Principles of Flight, because both the _____ and _____ in which it flies are matter subjected to the laws of mechanics.
- 3) The mass of a body is a measure of how difficult it is to _____ or _____
- 4) Motion is said to be there when a body changes its _____ in relation to its surroundings.
- 5) Speed is the _____.
- 6) Velocity is speed in _____.
- 7) Velocity is a _____ quantity
- 8) Acceleration is the _____.
- 9) A body moving along a circular path at constant speed has _____.
- 10) A body will continue to be in state of _____ or of _____ motion in a straight line unless acted upon by an external force.
- 11) A push or a pull'. That which causes or tends to cause a _____ of a body.
- 12) Pressure is _____.
- 13) The rate of change of momentum of a body is directly proportional to the _____ and takes place in the direction of the application of the said force.
- 14) To every action, there is an _____ and _____ reaction.
- 15) The earth exerts a certain force towards its _____ on all objects on its surface.
- 16) Weight of the body is equal to the mass of the body multiplied by _____
- 17) A force is said to do work on a _____ when it moves the body in the direction in which the force is acting.
- 18) The amount of work done on a body is the product of the force applied to the body and _____ moved by that force in the direction in which it is acting. If a force is exerted and _____ takes place, no work has been done
- 19) Power is simply the _____
- 20) Mass has energy if it has _____.
- 21) Law of Conversation of Energy, sum _____ in the universe remains _____.
- 22) The point through which the weight of an aircraft acts is _____
- 23) Kinetic Energy, mass that is moving can do work in _____
- 24) A body designed to produce more lift than drag is _____
- 25) A typical aerofoil section is cambered on top surface and is more or less _____ at bottom.
- 26) Chord Line It is line joining the _____ of leading and trailing edges of an aerofoil.
- 27) Chord Length, It is the length of chord line inctercepted between the _____ and _____ edges.
- 28) Angle of Attack. It is the angle between the chord line and the _____
- 29) Angle of Incidence. The angle between the chord line and _____.
- 30) _____ is one single force representing all the pressures (force per unit area) over the surface of the aerofoil. It acts through the _____ which is situated on the chord line.
- 31) Lift. The vertical component of Total Reaction, resolved at _____ angles to the relative airflow.
- 32) Drag. The horizontal component of the _____ and in the same direction as the relative airflow.
- 33) _____ is the shape of a wing or blade
- 34) An airfoil-shaped body moved through a fluid produces an _____.

- 35) The component of this force _____ to the direction of motion is called lift.
- 36) The component _____ to the direction of motion is called drag
- 37) _____ flight airfoils have a characteristic shape with a rounded leading edge, followed by a sharp trailing edge
- 38) Any object with an angle of attack in a moving fluid, such as a flat plate will generate an _____ perpendicular to the flow.
- 39) Aerofoils are more _____ shapes, able to generate more lift with less drag.
- 40) Modern aircraft wings may have different airfoil sections along the wing span, each one optimized for the conditions in each _____ of the wing.
- 41) Movable high-lift devices, flaps and sometimes slats, are fitted to _____ on almost every aircraft.
- 42) A flying object is a _____ in a three dimensional space

UNITS :

- 43) Force _____
- 44) Momentum _____
- 45) Weight _____
- 46) Work _____
- 47) Power _____
- 48) Energy _____
- 49) Velocity _____
- 50) Kinetic Energy _____