Gliding

1 To glide for maximum range, the pilot will fly:

a) at the angle of attack which gives maximum C_L.
b) at a speed where lift is maximum.
c) at approximately four degrees angle of attack.
d) with the longitudinal axis parallel to the glidepath.

2 To glide for maximum range, the pilot will fly at the speed where:

a) the aircrafts's nose is highest.
b) the coefficient of lift is maximum.
c) the lift over drag ratio is maximum.
d) the flaps have been extended.

3 Aircraft A is heavier than Aircraft B. If both aircraft had an engine failure, Aircraft B would have a greater glide range when:

a) it has a headwind.
b) there is no wind.
c) it is at the best L/D speed
d) it has a tailwind.

4 You consider that you may be undershooting on a glide approach to land. You are flying at the best lift over drag speed, but you should now:

a) raise the nose to increase the gliding distance.
b) remain at the same speed and consider a closer landing area.
c) decrease your speed to increase your range.
d) increase your speed to decrease your gliding range.

5 To glide for maximum range, the pilot will fly:

a) at sixteen degrees angle of attack
b) at approximately four degrees angle of attack
c) at a speed where lift is maximum
d) with the longitudinal axis parallel to the glidepath

6 To cover the greatest distance when gliding, the gliding speed must be:

a) near to the stalling speed
b) as high as possible, within V_{NE} limits
c) the one that gives the highest lift
d) the one that gives the highest L/D ratio

7 In a glide the lift force is:

a) equal to the weight
b) equal to the drag
c) greater than the weight
d) less than the weight

8 What will be the effect of an increase in weight on glide performance in still air if the best lift/drag ratio is maintained

a) glide range will increase
b) glide range will reduce
c) rate of descent will reduce
d) rate of descent will increase

9 If the weight of an aircraft is increased, and optimum glide conditions are maintained, the glide:

a) velocity will reduce
b) range will increase
c) range will reduce
d) range will remain the same

10 To cover the greatest distance when gliding the gliding speed must be

a) near to the stalling speed
b) as high as possible within VNE limits
c) the one that gives the highest L/D ratio
d) the one that gives the lowest L/D ratio

11 During a glide the following forces act on an aircraft

a) lift, weight, thrust
b) lift, drag, weight
c) drag, thrust, weight
d) lift, weight , thrust and drag

12 If weight is increased the maximum gliding range of an aircraft

a) decreases
b) increases
c) remains the same
d) increases only if there is a headwind

Answers

1.c 2.c 3.d 4.b 5.b 6.d 7.d 8.d 9.d 10.c 11.b 12.c