

(A71) 飛艇飛航原理

最近更新日期：無；更新題號：無

原始題號:0015666 題組:1 難易度:中

(C) 1. (參照圖1)決定這些狀況的密度高度：

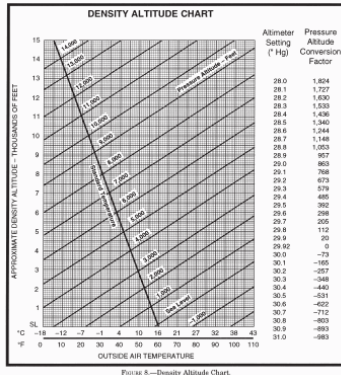
高度標撥訂值：29.95，跑道溫度：

+81°F，機場標高：5,250呎MSL。"

(如圖A71_Fig1)

(A)"4,600呎MSL。" (B)"5,877呎MSL。" (C)"8,500呎MSL。"

題目圖：



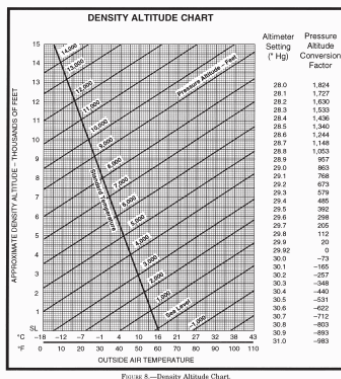
原始題號:0015667 題組:2 難易度:中

(A) 2. (參照圖1)決定機場壓力高度，其機場標高：3,563呎MSL，高度標撥訂值：29.96。"

(如圖A71_Fig1)

(A)"3,527 呎MSL。" (B)"3,556呎MSL。" (C)"3,639呎MSL。"

題目圖：



原始題號:0015668 題組:3 難易度:中

(A) 3. (參照圖1)決定這些狀況的密度高度：

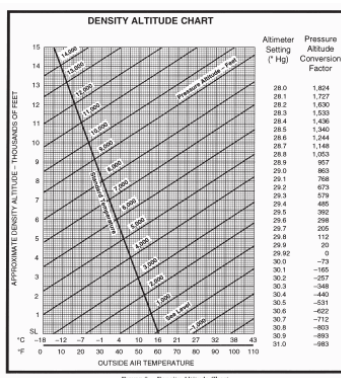
高度標撥訂值：30.35，跑道溫度：

+25°F，機場標高：3,894呎MSL。"

(如圖A71_Fig1)

(A)"2,000呎MSL。" (B)"2,900呎MSL。" (C)"3,500呎MSL。"

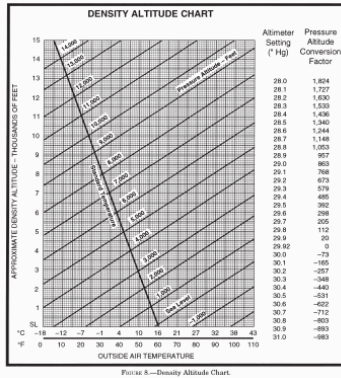
題目圖：



原始題號:0015669 題組:4 難易度:中

- (C) 4. (參照圖1)在溫度90°F下降至55°F及壓力高度1,250呎上升至1,750呎時，密度高度變化為何?"
(如圖A71_Fig1)
(A)"1,700呎上升。" (B)"1,300呎下降。" (C)"1,700呎下降。"

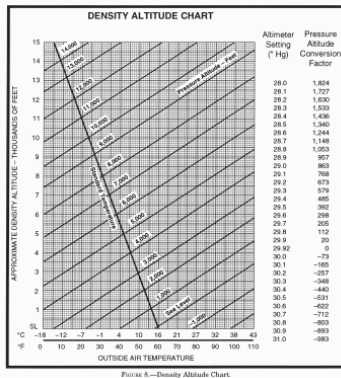
題目圖：



原始題號:0015670 題組:5 難易度:中

- (C) 5. (參照圖1)假設壓力高度維持在5,000呎，溫度自25°F上升至50°F時之密度高度變化為何?"
(如圖A71_Fig1)
(A)"1,200呎上升。" (B)"1,400呎上升。" (C)"1,650呎上升。"

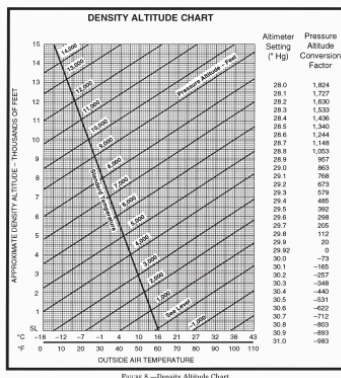
題目圖：



原始題號:0015671 題組:6 難易度:中

- (A) 6. (參照圖1)決定指示高度為1,380呎MSL, 高度表撥定值為28.82, 及標準溫度之壓力高度。"
(如圖A71_Fig1)
(A)"2,991呎MSL。" (B)"2,913呎MSL。" (C)"3,013呎MSL。"

題目圖：



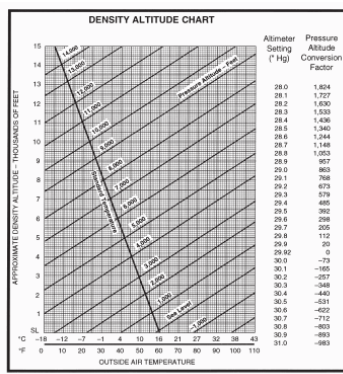
原始題號:0015672 題組:7 難易度:中

(C) 7. (參照圖1)若壓力高度維持於3,000呎MSL，溫度自30°F上升至50°F時，其密度高度之影響為何?"

(如圖A71_Fig1)

(A)900呎 上升。 (B)"1,100呎上升。" (C)"1,300呎上升。"

題目圖：



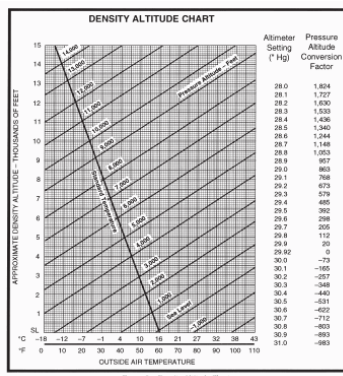
原始題號:0015673 題組:8 難易度:中

(A) 8. (參照圖1)決定一機場之壓力高度，其標高為1,386呎，高度表撥定值為29.97。"

(如圖A71_Fig1)

(A)"1,341呎MSL。" (B)"1,45呎MSL。" (C)"1,562呎MSL。"

題目圖：



原始題號:0015674 題組:0 難易度:易

(C) 9. 列舉航空器運動四個基本動作

(A)動力、俯仰、傾斜、及配平。 (B)推力、升力、轉彎、及滑翔。 (C)平直飛行、轉彎、爬升、與下滑。

原始題號:0015675 題組:0 難易度:易

(B) 10. 翼型失速時，攻角將如何

(A)如重心前移，則攻角增加。 (B)不論總重為何，均維持不變。 (C)總重增加時，攻角改變。

原始題號:0015676 題組:0 難易度:易

(A) 11. 造成每次失速的直接原因為

(A)攻角超量。 (B)密度高度超量。 (C)垂直上升率超量。

原始題號:0015677 題組:0 難易度:易

(A) 12. 起飛性能最關鍵的狀況為大載重、高高度、高溫度，及_____的綜合結果。

(A)不利之風向 (B)跑道週邊的障礙物 (C)動力系

原始題號:0015678 題組:0 難易度:易

(B) 13. 何為絕對高度？

(A)直接讀自高度表之高度。(B)航空器距離地表之垂直距離。(C)標準海平面以上之高度。

原始題號:0015679 題組:0 難易度:易

(B) 14. 何為密度高度？

(A)標準海平面以上之高度。(B)修正非標準溫度後之壓力高度。(C)直接讀自高度表之高度。

原始題號:0015680 題組:0 難易度:易

(A) 15. 密度高度，影響航空器落地性能，定義為

(A)壓力高度與大氣溫度。(B)逆風與落地重量。(C)溼度與煞車磨擦係數。

原始題號:0015681 題組:0 難易度:易

(B) 16. 相較於低密度高度，高密度高度如何及為何影響螺旋槳效率？

(A)因螺旋槳摩擦阻力減小，故效率增加。(B)因螺旋槳在高密度高度所產生的力較低密度高度少，故效率降低。(C)因螺旋槳在較稀薄空氣中需增加動力，故效率降低。

原始題號:0015682 題組:0 難易度:易

(B) 17. 高溼度對航空器性能有何影響？

(A)會提升性能。(B)會降低性能。(C)無影響。

原始題號:0015683 題組:0 難易度:易

(A) 18. 海平面的標準溫度與壓力值為何？

(A)"15°C，29.92" Hg。"(B)59°C，1013.2毫米巴。(C)59°F，29.92毫米巴。

原始題號:0015684 題組:0 難易度:易

(B) 19. 高密度高度對航空器性能有何影響？

(A)增加航空器性能。(B)減少爬升性能。(C)增加起飛性能。

原始題號:0015685 題組:0 難易度:中

(C) 20. 哪種混合大氣狀況會降低航空器起飛與爬升性能？

(A)低溫、低相對溼度、及低密度高度。(B)高溫、低相對溼度、及低密度高度。(C)高溫、高相對溼度、及高密度高度。

原始題號:0015686 題組:0 難易度:易

(B) 21. 何種因素將會使一特定機場密度高度增加？

(A)大氣壓力上升。(B)周圍溫度上升。(C)相對溼度減低。

原始題號:0015687 題組:0 難易度:易

(A) 22. 為避免漏失重要步驟，應經常使用

(A)適當之檢查手冊。(B)空速表標示說明。(C)適航證明。

原始題號:0015688 題組:0 難易度:易

(B) 23. 上坡面跑道對航空器起飛性能有何影響？

(A)增加起飛速度。(B)增加起飛距離。(C)減少起飛距離。

原始題號:0015689 題組:0 難易度:易

- (A) 24. 航空器平直飛行時，升力、阻力、推力、與重力間之關係為何？
(A)升力等於重力，且推力等於阻力。(B)升力、阻力與重力等於推力。(C)升力與重力，等於推力與阻力。

原始題號:0015690 題組:0 難易度:易

- (A) 25. 爬升性能靠
(A)備用馬力或推力。(B)最大升/阻比。(C)巡航馬力設定。

原始題號:0015691 題組:0 難易度:中

- (B) 26. 關於地面效應，飛行員必須注意什麼？
(A)翼尖渦流變大造成離場與到場航空器的機尾亂流問題 (B)誘導阻力變小，故在減速點之任何額外空速將造成浮動。(C)全失速落地時使用水平安定面上升的量，要比無地面效應的全失速落地量少。

原始題號:0015692 題組:0 難易度:易

- (B) 27. 一架航空器具有穩定特性，則
(A)難以失速。(B)較易控制。(C)不會旋轉。

原始題號:0015693 題組:0 難易度:易

- (B) 28. 介於機翼弦線與相對風之夾角稱為
(A)升力角。(B)攻角。(C)傾角。

原始題號:0015694 題組:0 難易度:易

- (C) 29. 哪一個陳述與柏努力定律有關？
(A)每一個作用力都有一個相等且相反之反作用力。(B)額外的升力是由機翼下表面空氣向下偏離所產生 (C)空氣行經機翼上曲線表面速度較快，造成上表面氣壓較低。

原始題號:0015695 題組:0 難易度:易

- (A) 30. 飛行中作用於航空器的力為
(A)升力、重力、推力與阻力。(B)升力、重力、引力與推力。(C)升力、引力、馬力與摩擦力。

原始題號:0015696 題組:0 難易度:易

- (A) 31. 在大型航空器後方落地時，應遵守哪一程序以避免渦流。
(A)維持在五邊下滑道之上，直到落地。(B)維持在五邊下滑道之下及一側。(C)"維持在五邊下滑道之下，並落在前一機落地點至少2,000呎之後。"

原始題號:0015697 題組:0 難易度:易

- (C) 32. 機尾亂流之渦流如何環繞翼尖？
(A)向內、向上、並環繞各個翼尖。(B)向內、向上、及反時針。(C)向外、向上、並環繞各個翼尖。

原始題號:0015698 題組:0 難易度:易

- (C) 33. 若一特定高度之大氣溫度(OAT)比標準溫度高，則密度高度
(A)等於壓力高度。(B)低於壓力高度。(C)高於壓力高度。

原始題號:0015699 題組:0 難易度:易

(A) 34. 海平面的標準溫度壓力值為何？

(A)"15°C與29.92"水銀柱高。" (B)59°C與1013.2毫米巴。 (C)59°F與29.92毫米巴。

原始題號:0015700 題組:0 難易度:易

(B) 35. 在一特定機場增加密度高度的因素為何？

(A)大氣壓力上升。 (B)大氣溫度上升。 (C)相對溼度下降。

原始題號:0015701 題組:0 難易度:易

() 36. 飛艇在何種狀況下會飄浮在空中？

(A)當浮力等於現有螺旋槳推力與飛艇阻力的水平平衡時。 (B)當浮力小於飛艇重量與所顯示的空氣總重差時。 (C)當浮力等於飛艇重量與所顯示的空氣總重差時。

原始題號:0015702 題組:0 難易度:易

() 37. 飛艇飛行期間，何時為垂直平衡？

(A)浮力大於飛艇重量時。 (B)浮力等於飛艇重量時。 (C)浮力小於飛艇重量時。

原始題號:0015703 題組:0 難易度:易

(C) 38. 何謂飛艇過熱？

(A)球體外空氣溫度過高狀況。 (B)升力空氣溫度超過紅線。 (C)球體內、外空氣溫度差異。

原始題號:0015704 題組:0 難易度:易

(A) 39. 關於飛艇操作，氣體靜力學定義為何？

(A)關於物體不受外力停在空中平衡的重力因素。 (B)有關氫氣的擴散與收縮的動態科學。 (C)具有升力的氫氣擴散與收縮影響。

原始題號:0015705 題組:0 難易度:易

(C) 40. 壓力高度是飛艇在_____的高度。

(A)飛艇無法再上升的高度。 (B)空氣壓力到達水面上3呎位置。 (C)調節升降的小氣囊無空氣時。

原始題號:0015706 題組:0 難易度:易

(C) 41. 硬式飛艇能到達的最高高度(在特定大氣狀況下)，並安全返回地面在於

(A)"可自由使用的"
(B)調節升降的小氣囊容量。 (C)壓力高度。

原始題號:0015707 題組:0 難易度:易

(C) 42. 飛艇飛行中不平衡狀況必須以_____方式加以改正。

(A)自調節升降的小氣囊內洩放熱氣 (B)自氣球體洩放熱氣 (C)負動力或正動力

原始題號:0015708 題組:0 難易度:易

() 43. 飛艇爬升期間檢查熱氣壓力(壓力高度)，空氣緩衝辦應

(A)向前開啟並向後關閉。 (B)向後開啟並向前關閉。 (C)關閉。

原始題號:0015709 題組:0 難易度:易

(C) 44. 在靜風狀況下將250磅重的飛艇落地，如飛艇在_____狀況時，可達成最理想之落地。

(A)配平 (B)機鼻下傾約20度 (C)機尾下傾約20度

原始題號:0015710 題組:0 難易度:易

(B) 45. 下列哪一種起飛程序對飛艇最危害？

(A)維持最大許可正向爬升角的50%。(B)不論起飛風向為何，未能適當使用全馬力於起飛。(C)在起飛期間，水平安定面適當調整控制飛艇後，維持負向爬升角。

原始題號:0015711 題組:0 難易度:易

(A) 46. 為能使飛艇執行正常下降，下列哪一個行動為必須？

(A)洩放熱氣。(B)洩放空氣。(C)將空氣吸入調節升降的小氣囊。

原始題號:0015712 題組:0 難易度:易

(C) 47. 如飛行期間飛艇遭遇兩個引擎失效，且均無法再啟動時，飛行員之立即行動為何？

(A)在操控性與球體形狀變小前，必須將飛艇落至地面。(B)緊急輔助動力單元必須提供電力給進氣風扇組，以便調節升降的小氣囊能維持進氣。(C)可立即備便操作飛艇，使成為自由氣球。

原始題號:0015713 題組:0 難易度:易

(C) 48. 飛艇下降時穿過強烈溫度逆?區域將會

(A)消失高度時，過熱情形並未改變。(B)消失高度時，過熱情形減少。(C)逐漸變輕，便得更難驅使其下降。

原始題號:0015714 題組:0 難易度:易

(A) 49. 飛艇在壓力高度且遭遇過熱氣體增加時，必須藉由調節_____維持恆定壓力。

(A)球體內的熱氣。(B)球體內的空氣。(C)調節升降的小氣囊內的熱氣。

原始題號:0015715 題組:0 難易度:易

(A) 50. 進場至失速期間，增加負載因素將使航空器

(A)較高速時失速。(B)有螺旋的趨勢。(C)較難以控制。

原始題號:0015716 題組:0 難易度:易

(C) 51. 翼尖渦流僅在航空器_____時發生。

(A)高空速操作 (B)大載重 (C)產生升力

原始題號:0015717 題組:0 難易度:易

(A) 52. 使航空器轉彎的力為何？

(A)水平升力向量。(B)垂直升力向量。(C)離心力。

原始題號:0015718 題組:0 難易度:易

(C) 53. 最大的渦流強度發生在航空器_____時。

(A)小載重、機身表面不潔及空速大 (B)大載重、機身表面不潔及空速大 (C)大載重、機身表面清潔及空速小

原始題號:0015719 題組:0 難易度:易

(A) 54. 大型航空器產生之翼尖渦流將

(A)下沉至航空器下方形成亂流。(B)上升進入航線。(C)上升至跑道起飛或下滑道間。

原始題號:0015720 題組:0 難易度:易

(A) 55. 落地期間需要極注意避免機尾亂流的風為

(A)弱前側風。(B)弱後側風。(C)強頂頭風。

原始題號:0015721 題組:0 難易度:易

- (A) 56. 在大型航空器落地後落地的小型航空器，飛行員應保持在_____以避免機尾亂流。
(A)大型航空器進場下滑道上方，並且落在大型航空器落地點前方。(B)大型航空器進場下滑道下方，並且落在大型航空器落地點後方。(C)大型航空器進場下滑道上方，並且落在大型航空器落地點後方。

原始題號:0015722 題組:0 難易度:易

- (B) 57. 在使用一大型航空器起飛後之跑道離場，飛行員應將航空器_____以避免機尾亂流。
(A)飛在大型航空器起飛航道下方，並選擇順風起飛。(B)飛在大型航空器起飛航道上
方，並選擇逆風起飛。(C)飛在大型航空器起飛航道下方，並選擇逆風起飛。

原始題號:0015723 題組:0 難易度:易

- (C) 58. 哪些大氣狀況之混合，將降低航空器起飛與爬升之性能？
(A)低溫、低相對溼度、與低密度高度。(B)高溫、低相對溼度、與低密度高度。(C)
高溫、高相對溼度、與高密度高度。

原始題號:0015724 題組:0 難易度:易

- (B) 59. 高密度高度對航空器性能有何影響？
(A)增加引擎性能。(B)降低爬升性能。(C)增加起飛性能。

原始題號:0015725 題組:0 難易度:易

- (B) 60. 高溼度對航空器性能之影響為何？
(A)增加性能。(B)降低性能。(C)無影響。

原始題號:0015726 題組:0 難易度:易

- (B) 61. 相較於低密度高度，高密度高度對螺旋槳效率之影響為何？
(A)由於螺旋槳之磨擦力減少，故效率增加。(B)由於螺旋槳在高密度高度較低密度高
度輸出力少，故效率降低。(C)由於螺旋槳在較稀薄空氣中需要增大功率，故效率降低。

原始題號:0015727 題組:0 難易度:易

- (A) 62. 哪四種力作用於航空器機身以獲得平衡？
(A)非加速飛行期間。(B)航空器加速時。(C)當航空器停放於地面時。

原始題號:0015728 題組:0 難易度:易

- (B) 63. 如航空器有穩定天性，則將
(A)不易失速。(B)較易控制。(C)不會進入螺旋。

原始題號:0015729 題組:0 難易度:易

- (A) 64. 控制航空器縱軸穩定因素為何？
(A)重心位置相對於升力中心。(B)水平安定面、方向舵及舵平調整片之效能。(C)推
力與升力對重力與阻力之關係。

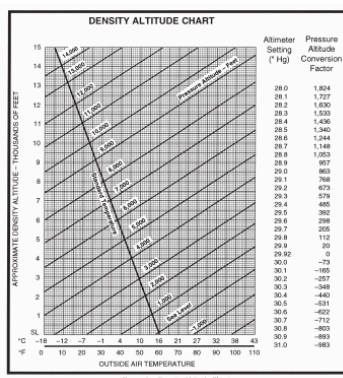
原始題號:0015730 題組:0 難易度:易

- (C) 65. 改變機翼的壓力中心將影響航空器的
(A)升/阻比。(B)升力的量。(C)氣動力平衡與操控力。

原始題號:0015666 題組:1 難易度:中

- (C) 66. (Refer to Figure 1.) Determine the density altitude for these conditions:
 Altimeter setting:29.25, Runway temperature:+81°F, Airport elevation:5,250 ft MSL."(如圖A71_Fig1)
 (A)"4,600 feet MSL." (B)"5,877 feet MSL." (C)"8,500 feet MSL."

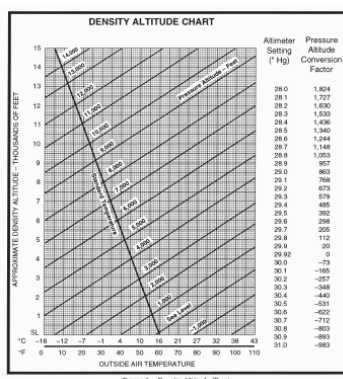
題目圖：



原始題號:0015667 題組:2 難易度:中

- (A) 67. (Refer to Figure 1.) Determine the pressure altitude at an airport that is 3,563 feet MSL with an altimeter setting of 29.96."(如圖A71_Fig1)
 (A)"3,527 feet MSL." (B)"3,556 feet MSL." (C)"3,639 feet MSL."

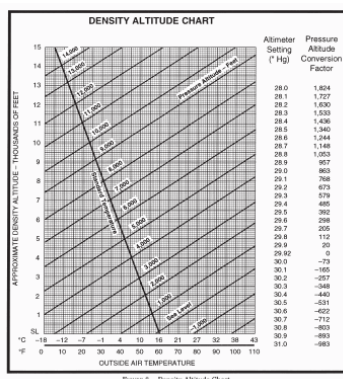
題目圖：



原始題號:0015668 題組:3 難易度:中

- (A) 68. (Refer to Figure 1.) Determine the density altitude for these conditions:
 Altimeter setting:30.35, Runway temperature:+25°F, Airport elevation:3,894 ft MSL."(如圖A71_Fig1)
 (A)"2,000 feet MSL." (B)"2,900 feet MSL." (C)"3,500 feet MSL."

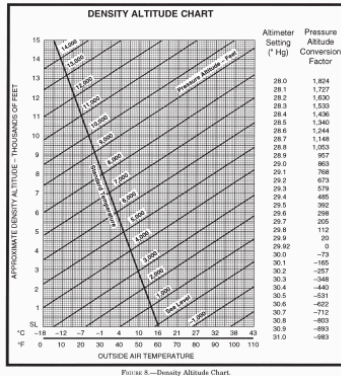
題目圖：



原始題號:0015669 題組:4 難易度:中

- (C) 69. (Refer to Figure 1.) What is the effect of a temperature decrease and a pressure altitude increase on the density altitude from 90°F and 1,250 feet pressure altitude to 55°F and 1,750 feet pressure altitude?" (如圖A71_Fig1)
- (A)"1,700-foot increase." (B)"1,300-foot decrease." (C)"1,700-foot decrease."

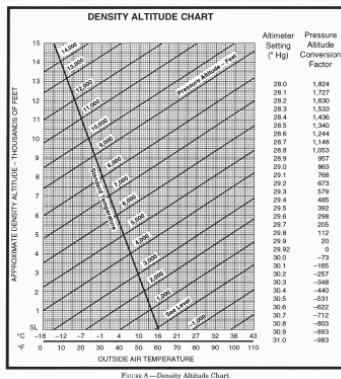
題目圖：



原始題號:0015670 題組:5 難易度:中

- (C) 70. (Refer to Figure 1.) What is the effect of a temperature increase from 25 to 50°F on the density altitude if the pressure altitude remains at 5,000 feet?" (如圖A71_Fig1)
- (A)"1,200-foot increase." (B)"1,400-foot increase." (C)"1,650-foot increase."

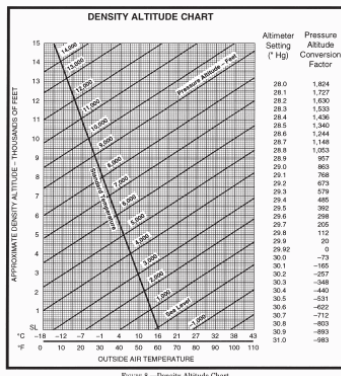
題目圖：



原始題號:0015671 題組:6 難易度:中

- (A) 71. (Refer to Figure 1.) Determine the pressure altitude with an indicated altitude of 1,380 feet MSL with an altimeter setting of 28.22 at standard temperature." (如圖A71_Fig1)
- (A)"2,991 feet MSL." (B)"2,913 feet MSL." (C)"3,013 feet MSL."

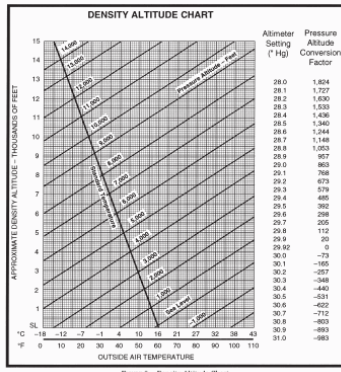
題目圖：



原始題號:0015672 題組:7 難易度:中

- (C) 72. (Refer to Figure 1.) What is the effect of a temperature increase from 30 to 50°F on the density altitude if the pressure altitude remains at 3,000 feet MSL?" (如圖A71_Fig1)
- (A) 900-foot increase. (B) "1,100-foot increase." (C) "1,300-foot increase."

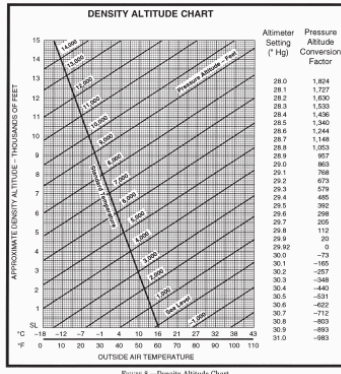
題目圖：



原始題號:0015673 題組:8 難易度:中

- (A) 73. (Refer to Figure 1.) Determine the pressure altitude with an airport that is 1,386 feet MSL with an altimeter setting of 29.97." (如圖A71_Fig1)
- (A) "1,341 feet MSL." (B) "1,451 feet MSL." (C) "1,562 feet MSL."

題目圖：



原始題號:0015674 題組:0 難易度:易

- (C) 74. Name the four fundamentals involved in maneuvering an aircraft.
- (A) "Power, pitch, bank, and trim." (B) "Thrust, lift, turns, and glides." (C) "Straight-and level flight, turns, climbs, and descents."

原始題號:0015675 題組:0 難易度:易

- (B) 75. The angle of attack at which an airfoil stalls will
- (A) increase if the CG is moved forward. (B) remain the same regardless of gross weight. (C) change with an increase in gross weight.

原始題號:0015676 題組:0 難易度:易

- (A) 76. The direct cause of every stall is excessive
- (A) angle of attack. (B) density altitude. (C) upward vertical velocity.

原始題號:0015677 題組:0 難易度:易

- (A) 77. "The most critical conditions of takeoff performance are the result of some combination of high gross weight, altitude, temperature, and"
- (A) unfavorable wind. (B) obstacles surrounding the runway. (C) powerplant systems.

原始題號:0015678 題組:0 難易度:易

(B) 78. What is absolute altitude?

(A)The altitude read directly from the altimeter. (B)The Vertical distance of the aircraft above the surface. (C)The height above the standard datum plane.

原始題號:0015679 題組:0 難易度:易

(B) 79. What is density altitude?

(A)The height above the standard datum plane. (B)The pressure altitude corrected for nonstandard temperature. (C)The altitude read directly from the altimeter.

原始題號:0015680 題組:0 難易度:易

(A) 80. "Density altitude, and its effect on landing performance, is defined by"

(A)pressure altitude and ambient temperature. (B)headwind and landing weight. (C)humidity and braking friction forces.

原始題號:0015681 題組:0 難易度:易

(B) 81. "What effect does high density altitude, as compared to low density altitude, have on propeller efficiency and why?"

(A)Efficiency is increased due to less friction on the propeller blades. (B)Efficiency is reduced because the propeller exerts less force at high density altitudes than at low density altitudes. (C)Efficiency is reduced due to the increased force of the propeller in the thinner air.

原始題號:0015682 題組:0 難易度:易

(B) 82. "What effect, if any, does high humidity have on aircraft performance?"

(A)It increases performance. (B)It decreases performance. (C)It has no effect on performance.

原始題號:0015683 題組:0 難易度:易

(A) 83. What are the standard temperature and pressure values for sea level?

(A)"15°C and 29.92" Hg." (B)59°C and 1013.2 millibars. (C)59°F and 29.92 millibars.

原始題號:0015684 題組:0 難易度:易

(B) 84. What effect does high density altitude have on aircraft performance?

(A)It increases engine performance. (B)It reduces climb performance. (C)It increases takeoff performance.

原始題號:0015685 題組:0 難易度:中

(C) 85. Which combination of atmospheric conditions will reduce aircraft takeoff and climb performance?

(A)"Low temperature, low relative humidity, and low density altitude." (B)"High temperature, low relative humidity, and low density altitude." (C)"High temperature, High relative humidity, and High density altitude."

原始題號:0015686 題組:0 難易度:易

- (B) 86. Which factor would tend to increase the density altitude at a given airport?
(A)An increase in barometric pressure. (B)An increase in ambient temperature.
(C)A decrease in relative humidity.

原始題號:0015687 題組:0 難易度:易

- (A) 87. "To avoid missing important steps, always use the"
(A)appropriate checklists. (B)placarded airspeeds. (C)airworthiness certificate.

原始題號:0015688 題組:0 難易度:易

- (B) 88. What effect does an uphill runway slope have on takeoff performance?
(A)Increases takeoff speed. (B)Increases takeoff distance. (C)Decreases takeoff distance.

原始題號:0015689 題組:0 難易度:易

- (A) 89. "What is the relationship of lift, drag, thrust, and weight when the airplane is in straight-and-level flight?"
(A)Lift equals weight and thrust equals drag. (B)"Lift, drag, and weight equals thrust." (C)Lift and weight equals thrust and drag.

原始題號:0015690 題組:0 難易度:易

- (A) 90. Climb performance depends upon the
(A)reserve power or thrust. (B)maximum L/D ratio. (C)cruise power setting.

原始題號:0015691 題組:0 難易度:中

- (B) 91. What must a pilot be aware of as a result of ground effect?
(A)Wingtip vortices increase creating wake turbulence problems for arriving and departing aircraft. (B)"Induced drag decreases; therefore, any excess speed at the point of flare may cause considerable floating." (C)A full stall landing will require less up elevator deflection than would a full stall when done free of ground effect.

原始題號:0015692 題組:0 難易度:易

- (B) 92. An airplane said to be inherently stable will
(A)be difficult to stall. (B)require less effort to control. (C)not spin.

原始題號:0015693 題組:0 難易度:易

- (B) 93. The angle between the chord line of an airfoil and the relative wind is known as the angle of
(A)lift. (B)attack. (C)incidence.

原始題號:0015694 題組:0 難易度:易

- (C) 94. Which statement relates to Bernoulli's principle?
(A)For every action there is an equal and opposite reaction. (B)An additional upward force is generated as the lower surface of the wing deflects air downward. (C)Air traveling faster over the curved upper surface of an airfoil causes lower pressure on the top surface.

原始題號:0015695 題組:0 難易度:易

- (A) 95. The four forces acting on an airplane in flight are
(A)"lift, weight, thrust, and drag." (B)"lift, weight, gravity, and thrust."
(C)"lift, gravity, power, and friction."

原始題號:0015696 題組:0 難易度:易

- (A) 96. "When landing behind a large aircraft, which procedure should be followed for vortex avoidance?"
(A)Stay above its final approach flightpath all the way to touchdown. (B)Stay below and to one side of its final approach flightpath. (C)"Stay well below its final approach flightpath and land at least 2,000 feet behind."

原始題號:0015697 題組:0 難易度:易

- (C) 97. How does the wake turbulence vortex circulate around each wingtip?
(A)"Inward, upward, and around each tip." (B)"Inward, upward, and counterclockwise." (C)"Outward, upward, and around each tip."

原始題號:0015698 題組:0 難易度:易

- (C) 98. "If the outside air temperature (OAT) at a given altitude is warmer than standard, the density altitude is"
(A)equal to pressure altitude. (B)lower than pressure altitude. (C)higher than pressure altitude.

原始題號:0015699 題組:0 難易度:易

- (A) 99. What are the standard temperature and pressure values for sea level?
(A)"15°C and 29.92" Hg." (B)59°C and 1013.2 millibars. (C)59°F and 29.92 millibars.

原始題號:0015700 題組:0 難易度:易

- (B) 100. Which factor would tend to increase the density altitude at a given airport?
(A)An increase in barometric pressure. (B)An increase in ambient temperature.
(C)A decrease in relative humidity.

原始題號:0015701 題組:0 難易度:易

- () 101. Under which condition will an airship float in the air?
(A)When buoyant force equals horizontal equilibrium existing between propeller thrust and airship drag. (B)When buoyant force is less than the difference between airship weight and the weight of the air volume being displaced. (C)When buoyant force equals the difference between airship weight and the weight of the air volume being displaced.

原始題號:0015702 題組:0 難易度:易

- () 102. "During flight in an airship, when is vertical equilibrium established?"
(A)When buoyancy is greater than airship weight. (B)When buoyancy equals airship weight. (C)When buoyancy is less than airship weight.

原始題號:0015703 題組:0 難易度:易

(C) 103. What is airship superheat?

(A)A condition of excessive exterior temperature of the envelope. (B)The temperature of the lifting gas exceeding the red line. (C)The difference between outside air temperature and the temperature inside the envelope.

原始題號:0015704 題組:0 難易度:易

(A) 104. "In relation to the operation of an airship, what is the definition of aerostatics?"

(A)The gravitational factors involving equilibrium of a body freely suspended in the atmosphere. (B)The science of the dynamics involved in the expansion and contraction of hydrogen gas. (C)The expansion and contraction of the lifting gas helium.

原始題號:0015705 題組:0 難易度:易

(C) 105. The pressure height of an airship is the altitude at which

(A)the airship would be unable to gain more altitude. (B)gas pressure would reach 3 inches of water. (C)the ballonet(s) would be empty.

原始題號:0015706 題組:0 難易度:易

(C) 106. The maximum altitude that a rigid airship can reach (under a given atmospheric condition) and then return safely to the surface is determined by

(A)the disposable load. (B)ballonet capacity. (C)pressure altitude.

原始題號:0015707 題組:0 難易度:易

(C) 107. An unbalanced condition of an airship in flight must be overcome by

(A)valving air from the ballonets. (B)valving gas from the envelope. (C)a negative or a positive dynamic force.

原始題號:0015708 題組:0 難易度:易

() 108. "To check the gas pressures (pressure height) of an airship during a climb, the air damper valves should be"

(A)opened forward and closed aft. (B)opened aft and closed forward. (C)closed.

原始題號:0015709 題組:0 難易度:易

(C) 109. "To land an airship that is 250 pounds heavy when the wind is calm, the best landing can usually be made if the airship is"

(A)in trim. (B)nose heavy approximately 20°. (C)tail heavy approximately 20°.

原始題號:0015710 題組:0 難易度:易

- (B) 110. Which takeoff procedure is considered to be most hazardous for an airship?
(A) Maintaining only 50 percent of the maximum permissible positive angle of inclination. (B) "Failing to apply full engine power properly on all takeoffs, regardless of wind." (C) Maintaining a negative angle of inclination during takeoff after elevator response is adequate for controllability.

原始題號:0015711 題組:0 難易度:易

- (A) 111. Which action is necessary in order to perform a normal descent in an airship?
(A) Valve gas. (B) Valve air. (C) Take air into the aft ballonets.

原始題號:0015712 題組:0 難易度:易

- (C) 112. "If an airship should experience failure of both engines during flight and neither engine can be restarted, what initial immediate action must the pilot take?"
(A) The airship must be driven down to a landing before control and envelope shape are lost. (B) The emergency auxiliary power unit must be started for electrical power to the airscoop blowers so that ballonet inflation can be maintained. (C) Immediate preparations to operate the airship as a free balloon are necessary.

原始題號:0015713 題組:0 難易度:易

- (C) 113. An airship descending through a steep temperature inversion will
(A) show no change in superheat as altitude is lost. (B) show a decrease in superheat as altitude is lost. (C) "become progressively lighter, thus becoming increasingly more difficult to drive down."

原始題號:0015714 題組:0 難易度:易

- (A) 114. "When the airship is at pressure height and superheat increases, constant pressure must be maintained by valving"
(A) gas from the envelope. (B) air from the envelope. (C) gas from the ballonets.

原始題號:0015715 題組:0 難易度:易

- (A) 115. "During an approach to a stall, an increased load factor will cause the aircraft to"
(A) stall at a higher airspeed. (B) have a tendency to spin. (C) be more difficult to control.

原始題號:0015716 題組:0 難易度:易

- (C) 116. Wingtip vortices are created only when an aircraft is
(A) operating at high airspeeds. (B) heavily loaded. (C) developing lift.

原始題號:0015717 題組:0 難易度:易

(A) 117. What force makes an airplane turn?

- (A)The horizontal component of lift. (B)The vertical component of lift.
(C)Centrifugal force.

原始題號:0015718 題組:0 難易度:易

(C) 118. The greatest vortex strength occurs when the generating aircraft is

- (A)"light, dirty, and fast." (B)"heavy, dirty, and fast." (C)"heavy, clean, and slow."

原始題號:0015719 題組:0 難易度:易

(A) 119. Wingtip vortices created by large aircraft tend to

- (A)sink below the aircraft generating turbulence. (B)rise into the traffic pattern. (C)rise into the takeoff or landing path of a crossing runway.

原始題號:0015720 題組:0 難易度:易

(A) 120. The wind condition that requires maximum caution when avoiding wake turbulence on landing is a

- (A)"light, quartering, headwind." (B)"light, quartering tailwind." (C)strong headwind.

原始題號:0015721 題組:0 難易度:易

(A) 121. "When landing behind a large aircraft, the pilot should avoid wake turbulence by staying "

- (A)above the large aircraft's final approach path and landing beyond the large aircraft's touchdown point. (B)below the large aircraft's final approach path and landing before the large aircraft's touchdown point. (C)above the large aircraft's final approach path and landing before the large aircraft's touchdown point.

原始題號:0015722 題組:0 難易度:易

(B) 122. "When departing behind a heavy aircraft, the pilot should avoid wake turbulence by maneuvering the aircraft"

- (A)below and downwind from the heavy aircraft. (B)above and upwind from the heavy aircraft. (C)below and upwind from the heavy aircraft.

原始題號:0015723 題組:0 難易度:易

(C) 123. Which combination of atmospheric conditions will reduce aircraft takeoff and climb performance?

- (A)"Low temperature, low relative humidity, and low density altitude." (B)"High temperature, low relative humidity, and low density altitude." (C)"High temperature, High relative humidity, and High density altitude."

原始題號:0015724 題組:0 難易度:易

(B) 124. What effect does high density altitude have on aircraft performance?

- (A)It increases engine performance. (B)It reduces climb performance. (C)It increases takeoff performance.

原始題號:0015725 題組:0 難易度:易

- (B) 125. "What effect, if any, does high humidity have on aircraft performance?"
(A)It increases performance. (B)It decreases performance. (C)It has no effect on performance.

原始題號:0015726 題組:0 難易度:易

- (B) 126. "What effect does high density altitude, as compared to low density altitude, have on propeller efficiency and why?"
(A)Efficiency is increased due to less friction on the propeller blades.
(B)Efficiency is reduced because the propeller exerts less force at high density altitudes than at low density altitudes. (C)Efficiency is reduced due to the increased force of the propeller in the thinner air.

原始題號:0015727 題組:0 難易度:易

- (A) 127. When are the four forces that act on an airplane in equilibrium?
(A)During unaccelerated flight. (B)When the aircraft is accelerating. (C)When the aircraft is at rest on the ground.

原始題號:0015728 題組:0 難易度:易

- (B) 128. An airplane said to be inherently stable will
(A)be difficult to stall. (B)require less effort to control. (C)not spin.

原始題號:0015729 題組:0 難易度:易

- (A) 129. What determines the longitudinal stability of an airplane?
(A)The location of the CG with respect to the center of lift. (B)"The effectiveness of the horizontal stabilizer, rudder, and rudder trim tab." (C)The relationship of thrust and lift to weight and drag.

原始題號:0015730 題組:0 難易度:易

- (C) 130. Changes in the center of pressure of a wing affect the aircraft's
(A)lift/drag ratio. (B)lifting capacity. (C)aerodynamic balance and controllability.