

(A61) 自由氣球飛航原理

最近更新日期：無；更新題號：無

原始題號:0015410 題組:0 難易度:易

(C) 1. 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:0015411 題組:0 難易度:易

(B) 2. 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:0015412 題組:0 難易度:易

(A) 3. 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:0015413 題組:0 難易度:易

(A) 4. 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:0015414 題組:0 難易度:易

(B) 5. 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:0015415 題組:0 難易度:易

(B) 6. 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:0015416 題組:0 難易度:易

(A) 7. 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:0015417 題組:0 難易度:中

(B) 8. 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:0015418 題組:0 難易度:易

(B) 9. 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:0015419 題組:0 難易度:易

(A) 10. 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:0015420 題組:0 難易度:易

- (B) 11. 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:0015421 題組:0 難易度:中

- (C) 12. 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:0015422 題組:0 難易度:易

- (B) 13. 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:0015423 題組:0 難易度:易

- (B) 14. 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:0015424 題組:0 難易度:易

- (A) 15. 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:0015425 題組:0 難易度:易

- (A) 16. 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:0015426 題組:0 難易度:易

- (A) 17. 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:0015427 題組:0 難易度:中

- (B) 18. 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。

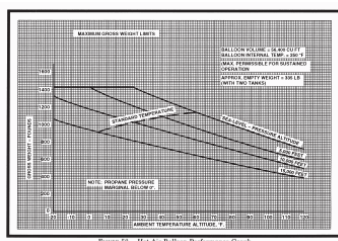
原始題號:0015428 題組:0 難易度:易

- (B) 19. 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:0015429 題組:1 難易度:中

- (B) 20. (參照圖1)如氣球總重為1,100磅，且所有高度均為標準溫度，試問最高升限為何？
(如圖A61_Fig1)
(A)1,000呎。(B)4,000 呎。(C)5,500呎。

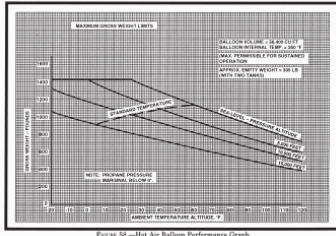
題目圖：



原始題號:0015430 題組:2 難易度:中

- (C) 21. (參照圖1)如氣球總重為1,000磅，且所有高度均為標準溫度，試問最高升限為何？
(如圖A61_Fig1)
(A)4,000呎。(B)5,500呎。(C)11,000 呎。

題目圖：



原始題號:0015431 題組:0 難易度:易

- (C) 22. 可承受整個氣球重量的部分是
(A)氣球體材質。(B)氣球體縫合處。(C)承載帶(繩)。

原始題號:0015432 題組:0 難易度:易

- (C) 23. 在熱氣球中，瓦斯比丁烷或其他碳氫化合物更適合使用，因為
(A)較不易揮發。(B)氣化較慢。(C)沸點較低。

原始題號:0015433 題組:0 難易度:易

- (B) 24. 瓦斯沸點的初始溫度為何？
(A)+32 °F。(B)-44 °F。(C)-60 °F。

原始題號:0015434 題組:0 難易度:易

- (A) 25. 在寒冷天氣時，瓦斯桶必須預熱，因為
(A)燃燒期間，液體瓦斯溫度控制燃燒器壓力。(B)通往燃燒器的管線可能結冰。(C)瓦斯需要自固體溶化為液體。

原始題號:0015435 題組:0 難易度:易

- (A) 26. 在有足夠的液態瓦斯可用時，瓦斯將會在____溫度之間有效地蒸發，以達適當運作。
(A)+30至+ 90 °F。(B)-44至+25 °F。(C)-51至 +20 °F。

原始題號:0015436 題組:0 難易度:易

- (C) 27. 飛行中如有足夠的瓦斯可用，瓦斯將會在____溫度之間有效地蒸發，提供足夠壓力使燃燒器作用？
(A)0至30 °F。(B)10至 30 °F。(C)30 至 90 °F。

原始題號:0015437 題組:0 難易度:易

- (A) 28. 當瓦斯桶內氣壓大於最大許可壓力時，在瓦斯桶頂端的瓣會自動開啟，稱為
(A)壓力釋放瓣。(B)節 壓瓣。(C)沖擊瓣。

原始題號:0015438 題組:0 難易度:易

- (B) 29. 當瓦斯桶充氣達80%容量時，位於各瓦斯桶的瓣會有顯示的是
(A)主瓦斯桶瓣。(B)蒸氣洩放瓣。(C)導瓣。

原始題號:0015439 題組:0 難易度:易

- (A) 30. 作用在熱氣球的升力，主要是氣球內部溫度__的結果。
(A)高於外界溫度。(B)低於外界溫度。(C)等於外界溫度。

原始題號:0015440 題組:0 難易度:易

- (A) 31. 在平均海平面上，每上升1,000呎時，熱氣球燃燒器的效率會減少多少？
(A)4%。(B)8%。(C)15 %。

原始題號:0015441 題組:0 難易度:易

- (C) 32. 飛行中，使用中的瓦斯桶外部結冰，最可能的原因是
(A)瓦斯內含水。(B)瓦斯管路漏氣。(C)汽化瓦斯而非液態瓦斯從瓦斯桶進入主燃燒器。

原始題號:0015442 題組:0 難易度:易

- (C) 33. 甲醇加入熱氣球的瓦斯桶之原因為？
(A)檢查瓦斯漏氣。(B)作為防火功能。(C)作為防冰劑。

原始題號:0015443 題組:0 難易度:易

- (B) 34. 裝設有沖擊閥門的氣球，沖擊閥門的功能為
(A)僅限爬升與下降。(B)高度控制。(C)僅限緊急狀況。

原始題號:0015444 題組:0 難易度:易

- (C) 35. 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:0015445 題組:0 難易度:易

- (C) 36. 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:0015446 題組:0 難易度:易

- (A) 37. 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:0015447 題組:0 難易度:易

- (A) 38. 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:0015448 題組:0 難易度:易

- (A) 39. 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:0015449 題組:0 難易度:易

- (B) 40. 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:0015450 題組:0 難易度:易

- (C) 41. 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。

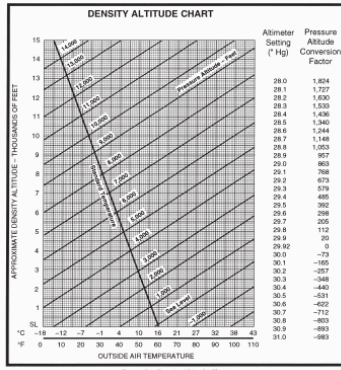
原始題號:0015451 題組:0 難易度:易

- (B) 42. 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:0015452 題組:1 難易度:中

- (C) 43. (參照圖2)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A61_Fig2)
(A)"1,200呎上升。" (B)"1,400呎上升。" (C)"1,650呎上升。"

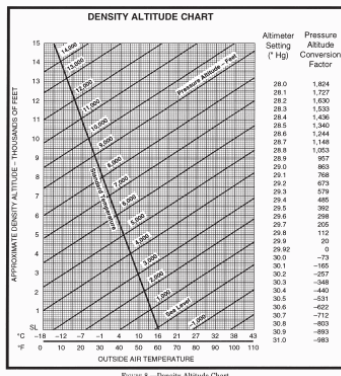
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原始題號:0015453 題組:2 難易度:中

- (A) 44. (參照圖2)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A61_Fig2)
(A)2,991呎MSL. (B)2,913呎MSL. (C)3,013呎MSL.

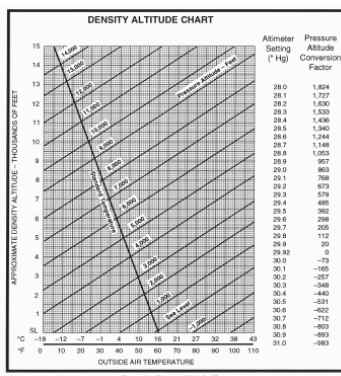
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原始題號:0015454 題組:3 難易度:中

- (C) 45. (參照圖2)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A61_Fig2)
(A)900呎 上升。(B)1,100呎上升。(C)1,300呎上升。

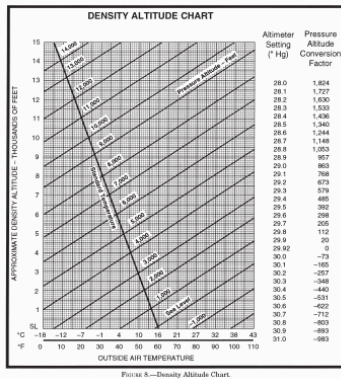
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原始題號:0015455 題組:4 難易度:中

- (A) 46. (參照圖2)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A61_Fig2)
(A)1,341呎MSL. (B)1,45呎MSL. (C)1,562呎MSL.

題目圖：



原始題號:0015456 題組:0 難易度:易

- (B) 47. 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:0015457 題組:0 難易度:易

- (B) 48. 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:0015458 題組:0 難易度:易

- (C) 49. 氣球飛行中心點燃燃燒器的程序為何?
(A)將調節器或沖擊閥門至全開，並開啟領航信號燈。(B)關閉瓦斯閥門，使瓦斯管路通氣，再開啟瓦斯閥門並開啟領航信號燈。(C)開啟其他瓦斯閥門，開啟調節器或衝擊閥門，並以較小流量點燃主噴嘴。

原始題號:0015459 題組:0 難易度:易

- (C) 50. 氣球落地期間，因風速大到必須盡快減速，試問放氣口應何時開啟?
(A)吊籃接觸地面時。(B)當氣球第一次離地，及最後一個壓載物釋放時。(C)在接觸地面前。

原始題號:0015460 題組:0 難易度:易

- (B) 51. 氣球落地時，乘員應如何將落地衝擊減至最小?
(A)坐在吊籃底部。(B)站在吊籃中央，面向氣球運動方向，膝蓋微曲。(C)背對背站立，並握住裝載環。

原始題號:0015461 題組:0 難易度:易

- (C) 52. 在大風速落地前，機長應向乘員提示以_____方式準備落地。
(A)跪在地板上面向後。(B)蹲伏在地板上，並在吊籃接觸地面時跳出吊籃。(C)蹲伏並雙手握住兩處固定在吊籃內，直到另行通知。

原始題號:0015462 題組:0 難易度:易

- (B) 53. 如遭遇空氣亂流必須落地時，應採取何種預警措施?
(A)落在任何靠近湖岸上風邊。(B)落在可用的最大落地場中央。(C)落在樹叢中吸收撞擊力，進而緩衝落地。

原始題號:0015463 題組:0 難易度:易

(C) 54. 當氣球體發生超溫狀況時，最佳行動為何？

- (A)將任何不需要的東西扔出吊籃外。(B)下降並在地面效應中滯空，直到氣球體冷卻。
(C)就近場站落地。

原始題號:0015464 題組:0 難易度:易

(C) 55. 飛行前檢查期間，除所需文件外，還有哪些裝備需要帶上氣球？

- (A)漂浮裝置。(B)緊急定位傳送器。(C)兩種燃燒器點燃方式。

原始題號:0015465 題組:0 難易度:易

(A) 56. 飛行前應如何檢查燃料系統？

- (A)靠聆聽與嗅覺。(B)靠點燃之火柴檢視連接處。(C)檢視所有連接處，並用肥皂水實施管路測漏。

原始題號:0015466 題組:0 難易度:易

(B) 57. 氣球上裝涉有沖擊閥門，其功能是

- (A)僅用於上升與下降。(B)控制高度。(C)僅用於緊急狀況。

原始題號:0015467 題組:0 難易度:易

(B) 58. 氣球發射期間，有時會發生假上升原因為何？

- (A)太快關閉排氣孔。(B)氣球體內溫度過高。(C)文氏管效應作用在氣球體上。

原始題號:0015468 題組:0 難易度:易

(B) 59. 以最大爬升率上升時，潛在危害為何？

- (A)氣球體可能瓦解。(B)放氣口可能被迫開啟。(C)快速流動的氣體可能會將燃燒器與領航信號燈吹熄。

原始題號:0015469 題組:0 難易度:易

(B) 60. 飛行中的熱氣球可能以何種改變方向？

- (A)以恆定的大氣壓力梯度飛行。(B)在不同的飛行高度操作。(C)如無梯度風，可在摩擦空層以上高度操作。

原始題號:0015470 題組:0 難易度:易

(A) 61. 如氣球飛行中遭遇附近有雷暴之非預期天氣變化而立即轉向，應採取何種行動？

- (A)立即落地。(B)下降並儘可能維持最低高度。(C)上升至足以清除四周障礙物的高度。

原始題號:0015471 題組:0 難易度:易

(A) 62. 飛行前檢查時，所有燃料箱應實施測試，以決定

- (A)燃燒器壓力及閥門狀況。(B)各燃料箱的領航信號燈作用正常。(C)燃料箱是否漏氣。

原始題號:0015472 題組:0 難易度:易

(B) 63. 在氣球中，最省燃料的平飛方式為

- (A)在溫度逆增中乘霾線飛行。(B)高次數的短暫噴燒。(C)低次數的長時間噴燒。

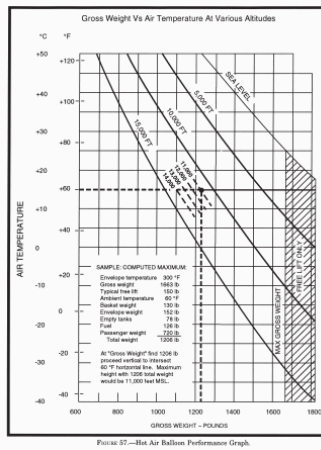
原始題號:0015473 題組:1 難易度:中

(C) 64. (參照圖3)氣球總重為1,350磅，外界溫度(OAT)為+51°F，則最大高度為何？

(如圖A61_Fig3)

- (A)5,000呎。(B)8,000呎。(C)10,000呎。

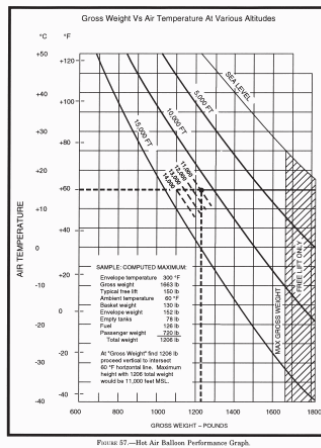
題目圖：



原始題號:0015474 題組:2 難易度:中

- (C) 65. (參照圖3)氣球總重為1,200磅，飛行員須到達的高度為5,000呎，則達到此性能的最高溫度為何？
(如圖A61_Fig3)
(A)+37 °F。 (B)+70 °F。 (C)+97 °F。

題目圖：



原始題號:0015410 題組:0 難易度:易

- (C) 66. 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:0015411 題組:0 難易度:易

- (B) 67. 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:0015412 題組:0 難易度:易

- (A) 68. The direct cause of every stall is excessive
(A)angle of attack. (B)density altitude. (C)upward vertical velocity.

原始題號:0015413 題組:0 難易度:易

- (A) 69. "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:0015414 題組:0 難易度:易

(B) 70. 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:0015415 題組:0 難易度:易

(B) 71. 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:0015416 題組:0 難易度:易

(A) 72. "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:0015417 題組:0 難易度:中

(B) 73. "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:0015418 題組:0 難易度:易

(B) 74. 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:0015419 題組:0 難易度:易

(A) 75. 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:0015420 題組:0 難易度:易

(B) 76. 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:0015421 題組:0 難易度:中

(C) 77. 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:0015422 題組:0 難易度:易

- (B) 78. 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:0015423 題組:0 難易度:易

- (B) 79. 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:0015424 題組:0 難易度:易

- (A) 80. "To avoid missing important steps, always use the"
(A)appropriate checklists. (B)placarded airspeeds. (C)airworthiness certificate.

原始題號:0015425 題組:0 難易度:易

- (A) 81. 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:0015426 題組:0 難易度:易

- (A) 82. Climb performance depends upon the
(A)reserve power or thrust. (B)maximum L/D ratio. (C)cruise power setting.

原始題號:0015427 題組:0 難易度:中

- (B) 83. 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.

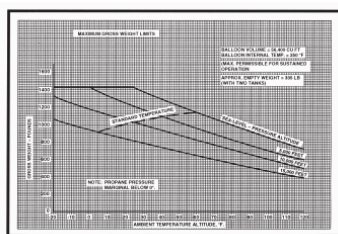
原始題號:0015428 題組:0 難易度:易

- (B) 84. 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:0015429 題組:1 難易度:中

- (B) 85. (Refer to Figure 1.) What is the maximum altitude for the balloon if the gross weight is 1,100 pounds and standard temperature exists at all altitudes?(如圖A61_Fig1)
(A)1,000 feet. (B)4,000 feet. (C)5,500 feet.

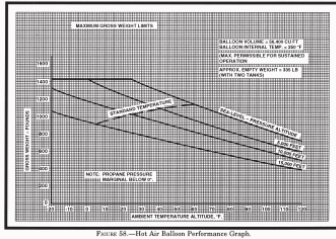
題目圖：



原始題號:0015430 題組:2 難易度:中

- (C) 86. (Refer to Figure 1.) What is the maximum altitude for the balloon if the gross weight is 1,000 pounds and standard temperature exists at all altitudes?(如圖A61_Fig1)
- (A)4,000 feet. (B)5,500 feet. (C)11,000 feet.

題目圖：



原始題號:0015431 題組:0 難易度:易

- (C) 87. The part of a balloon that bears the entire load is the
- (A)envelope material. (B)envelope seams. (C)load tapes (or cords).

原始題號:0015432 題組:0 難易度:易

- (C) 88. In hot air balloons, propane is preferred to butane or other hydrocarbons because it
- (A)is less volatile. (B)is slower to vaporize. (C)has a lower boiling point.

原始題號:0015433 題組:0 難易度:易

- (B) 89. The initial temperature at which propane boils is
- (A)+32 °F. (B)-44 °F. (C)-60 °F.

原始題號:0015434 題組:0 難易度:易

- (A) 90. On cold days, it may be necessary to preheat the propane tanks because
- (A)the temperature of the liquid propane controls the burner pressure during combustion. (B)there may be ice in the lines to the burner. (C)the propane needs to be thawed from a solid to a liquid state.

原始題號:0015435 題組:0 難易度:易

- (A) 91. When ample liquid propane is available, propane will vaporize sufficiently to provide proper operation between the temperatures of
- (A)+30 to +90 °F. (B)-44 to +25 °F. (C)-51 to +20 °F.

原始題號:0015436 題組:0 難易度:易

- (C) 92. If ample propane is available, within which temperature range will propane vaporize sufficiently to provide enough pressure for burner operation during flight?
- (A)0 to 30 °F. (B)10 to 30 °F. (C)30 to 90 °F.

原始題號:0015437 題組:0 難易度:易

- (A) 93. The valve located on the top of the propane tank which opens automatically when the pressure in the tank exceeds maximum allowable pressure is the
- (A)pressure relief valve. (B)metering valve. (C)blast valve.

原始題號:0015438 題組:0 難易度:易

- (B) 94. The valve located on each tank that indicates when the tank is filled to 80 percent capacity is the
(A)main tank valve. (B)vapor-bleed valve. (C)pilot valve.

原始題號:0015439 題組:0 難易度:易

- (A) 95. The lifting forces which act on a hot air balloon are primarily the result of the interior air temperature being
(A)greater than ambient temperature. (B)less than ambient temperature. (C)equal to ambient temperature.

原始題號:0015440 題組:0 難易度:易

- (A) 96. Burner efficiency of a hot air balloon decreases approximately what percent for each 1,000 feet above MSL?
(A)4 percent. (B)8 percent. (C)15 percent.

原始題號:0015441 題組:0 難易度:易

- (C) 97. While in flight, ice begins forming on the outside of the fuel tank in use. this would most likely be caused by
(A)water in the fuel. (B)a leak in the fuel line. (C)vaporized fuel instead of liquid fuel being drawn from the tank into the main burner.

原始題號:0015442 題組:0 難易度:易

- (C) 98. For what reason is methanol added to the propane fuel of hot air balloons?
(A)To check for fuel leaks. (B)As a fire retardant. (C)As an anti-icing additive.

原始題號:0015443 題組:0 難易度:易

- (B) 99. "On a balloon equipped with a blast valve, the blast valve is used for"
(A)climbs and descents only. (B)altitude control. (C)emergencies only.

原始題號:0015444 題組:0 難易度:易

- (C) 100. Wingtip vortices are created only when an aircraft is
(A)operating at high airspeeds. (B)heavily loaded. (C)developing lift.

原始題號:0015445 題組:0 難易度:易

- (C) 101. 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:0015446 題組:0 難易度:易

- (A) 102. 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:0015447 題組:0 難易度:易

- (A) 103. 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:0015448 題組:0 難易度:易

- (A) 104. 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:0015449 題組:0 難易度:易

- (B) 105. "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:0015450 題組:0 難易度:易

- (C) 106. Which combination of atmospheric condotions 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.

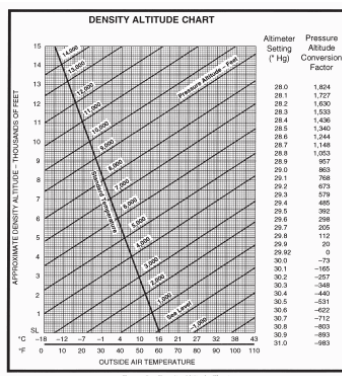
原始題號:0015451 題組:0 難易度:易

- (B) 107. What effect does high density altitude have on aircraft pereformance?
(A)It increases engine performance. (B)It reduces climb performance. (C)It increase takeoff performance.

原始題號:0015452 題組:1 難易度:中

- (C) 108. (Refer to Figure 2.) 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A61_Fig2)
(A)"1,200-foot increase." (B)"1,400-foot increase." (C)"1,650-foot increase."

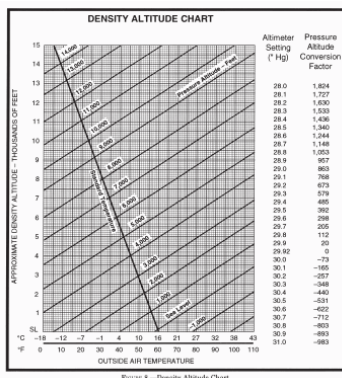
題目圖：



原始題號:0015453 題組:2 難易度:中

- (A) 109. (Refer to Figure 2.) 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A61_Fig2)
- (A) 2,991 feet MSL. (B) 2,913 feet MSL. (C) 3,013 feet MSL.

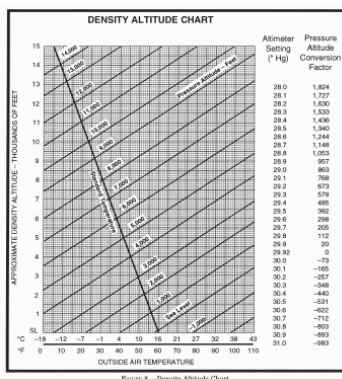
題目圖：



原始題號:0015454 題組:3 難易度:中

- (C) 110. (Refer to Figure 2.) 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A61_Fig2)
- (A) 900-foot increase. (B) 1,100-foot increase. (C) 1,300-foot increase.

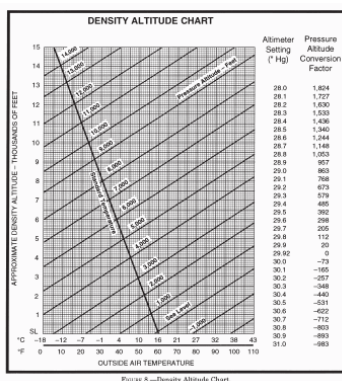
題目圖：



原始題號:0015455 題組:4 難易度:中

- (A) 111. (Refer to Figure 2.) Determine the pressure altitude with an airport that is 1,386 feet MSL with an altimeter setting of 29.97. (如圖A61_Fig2)
- (A) 1,341 feet MSL. (B) 1,451 feet MSL. (C) 1,562 feet MSL.

題目圖：



原始題號:0015456 題組:0 難易度:易

- (B) 112. "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:0015457 題組:0 難易度:易

- (B) 113. 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:0015458 題組:0 難易度:易

- (C) 114. What is one procedure for relighting the burner while in flight?
(A)Open the regulator or blast valve full open and light the pilot light.
(B)"Close the tank valves, vent the fuel lines, reopen the tank valves, and light the pilot light." (C)"Open another tank valve, open the regulator or blast valve, and light the main jets with reduced flow."

原始題號:0015459 題組:0 難易度:易

- (C) 115. The windspeed is such that it is necessary to deflare the envelope as rapidly as possible during a landing. When should the deflare port (rip panel) be opened?
(A)The instant the gondola contacts the surface. (B)As the balloon skips off the surface the first time and the last of the ballast has been discharged.
(C)Just prior to ground contact.

原始題號:0015460 題組:0 難易度:易

- (B) 116. "When landing a free balloon, what should the occupants do to minimize landing shock?"
(A)Be seated on the floor of the basket. (B)"Stand with knees slightly bent, in the center of the gondola, facing the direction of movement." (C)Stand back-to-back and hold onto the load ring.

原始題號:0015461 題組:0 難易度:易

- (C) 117. Prior to a hghih-wind landing, the pilot in command should brief the passengers to prepare for the landing by
(A)kneeing on the floor and facing aft. (B)crouching on the floor and jumping out of the basket upon contact with the ground. (C)crouching while hanging on in two places, and remaining in the basket until advised otherwise.

原始題號:0015462 題組:0 難易度:易

- (B) 118. Which precaution should be exercised if confronted with the necessity of having to land a balloon when the air is turbulent?
(A)Land in any available lake close to the upwind shore. (B)Land in the center of the largest available field. (C)"Land in the trees to absorb shock forces, thus cushioning the landing."

原始題號:0015463 題組:0 難易度:易

- (C) 119. What action is most appropriate when an envelope over-temperature condition occurs?
(A)Throw all unnecessary equipment overboard. (B)Descend; hover in ground effect until the envelope cools. (C)Land as soon as practical.

原始題號:0015464 題組:0 難易度:易

- (C) 120. "In addition to the required documents, what carry-on equipment should be accounted for during preflight?"
(A)Flotation gear. (B)Emergency locator transmitter. (C)Two means of burner ignition.

原始題號:0015465 題組:0 難易度:易

- (A) 121. How should a balloon fuel system be checked for leak prior to flight?
(A)Listen and smell. (B)Check all connections with a lighted match. (C)Cover all connections and tubing with soapy water.

原始題號:0015466 題組:0 難易度:易

- (B) 122. "On a balloon equipped with a blast valve, the blast valve is used for"
(A)climbs and descents only. (B)altitude control. (C)emergencies only.

原始題號:0015467 題組:0 難易度:易

- (B) 123. What causes false lift which sometimes occurs during launch procedures?
(A)Closing the maneuvering vent too rapidly. (B)Excessive temperature within the envelope. (C)Venturi effect of the wind on the envelope.

原始題號:0015468 題組:0 難易度:易

- (B) 124. What is a potential hazard when climbing at maximum rate?
(A)The envelope may collapse. (B)Deflation ports may be forced open. (C)The rapid flow of air may extinguish the burner and pilot light.

原始題號:0015469 題組:0 難易度:易

- (B) 125. It may be possible to make changes in the direction of flight in a hot air balloon by
(A)flying a constant atmospheric pressure gradient. (B)operating at different flight altitudes. (C)operating above the friction level, if there is no gradient wind.

原始題號:0015470 題組:0 難易度:易

- (A) 126. What action should be taken if balloon encounters unforecast weather and shifts direction abruptly while in the vicinity of a thunderstorm?
(A)Land immediately. (B)Descend to and maintain the lowest altitude possible. (C)Ascend to an altitude which will ensure adequate obstacle clearance in all directions.

原始題號:0015471 題組:0 難易度:易

- (A) 127. All fuel tanks should be fired during preflight to determine
(A) the burner pressure and condition of the valves. (B) that the pilot light functions properly on each tank. (C) if there are any leaks in the tank.

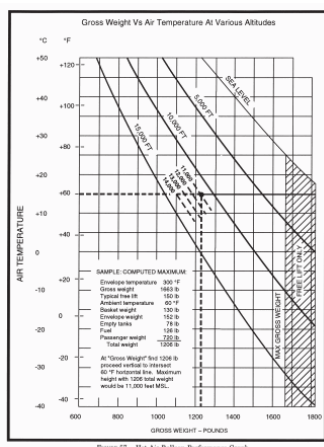
原始題號:0015472 題組:0 難易度:易

- (B) 128. In a balloon, best fuel economy in level flight can be accomplished by
(A) riding the haze line in a temperature inversion. (B) short blasts of heat at high frequency. (C) long blasts of heat at low frequency.

原始題號:0015473 題組:1 難易度:中

- (C) 129. (Refer to figure 3.) The gross weight of the balloon is 1,350 pounds and the outside air temperature (OAT) is +51°F. The maximum height would be (如圖 A61_Fig3)
(A) 5,000 feet. (B) 8,000 feet. (C) 10,000 feet.

題目圖：



原始題號:0015474 題組:2 難易度:中

- (C) 130. (Refer to figure 3.) The gross weight of the balloon is 1,200 pounds and the maximum height the pilot needs to attain is 5,000 feet. The maximum temperature to achieve this performance is (如圖 A61_Fig3)
(A) +37 °F. (B) +70 °F. (C) +97 °F.

題目圖：

