

(A25) CPL航空器一般維護

最近更新日期：107/06/11；更新題號：0012422

原始題號:0012232 題組:0 難易度:易

- (C) 1. CG可由下列何方式獲得？
(A)總力臂/總力矩 (B)總重X總力矩 (C)總力矩/總重

原始題號:0012233 題組:0 難易度:易

- (A) 2. 計算載重平衡時，基本空重應包含機身，引擎和已安裝之選擇裝備重，以及
(A)不可使用之燃油，及各種操作液壓油及滑油之總重 (B)所有燃油及滑油重，但不包含駕駛，乘客及其行李重 (C)不可使用之燃油，及各種滑油之總重，但不包含自行加裝的無線電及儀器重

原始題號:0012234 題組:0 難易度:易

- (A) 3. 火星塞失效最可能發生在
(A)爬升但未做混合比調整 (B)下降但未做混合比調整 (C)油門劇烈增加

原始題號:0012235 題組:0 難易度:易

- (C) 4. 如果爬升中未將混合比調稀則會
(A)進入化油器的空氣會變少而吸入的燃油也會變少 (B)進入化油器的空氣密度降低，但是吸入的燃油則增加 (C)進入化油器的空氣密度降低，但是吸入的燃油則不變

原始題號:0012236 題組:0 難易度:易

- (C) 5. 使用化油器加溫裝置會
(A)不影響混合比 (B)油/氣混合比變稀 (C)油/氣混合比變濃

原始題號:0012237 題組:0 難易度:易

- (C) 6. 除非已執行調整，否則爬升中油/氣混合比會變濃，因為吸入的燃油
(A)隨著吸入空氣體積減少而減少 (B)保持不變，雖然吸入的空氣體積減少 (C)雖然保持不變，但吸入的空氣密度減少

原始題號:0012238 題組:0 難易度:易

- (A) 7. 隨高度變化調整油/氣混合比的目的是
(A)隨著空氣密度下降減少供油 (B)隨著空氣密度增加減少供油 (C)隨著空氣密度及氣壓下降及增加供油

原始題號:0012239 題組:0 難易度:易

- (B) 8. 高高度下，過濃的混合比將導致
(A)引擎過熱 (B)火星塞失效 (C)引擎運轉更加平順但是會增加油耗

原始題號:0012240 題組:0 難易度:易

- (C) 9. 飛行員由何裝置控制油/氣混合比？
(A)油門 (B)歧管壓力 (C)混合比控制器

原始題號:0012241 題組:0 難易度:易

- (B) 10. 油/氣混合比是
(A)進入汽缸的燃油體積與空氣體積的比值 (B)進入汽缸的燃油重量與空氣重量的比值 (C)進入化油器的燃油重量與空氣重量的比值

原始題號:0012242 題組:0 難易度:易

(C) 11. 外界溫度或壓力對渦輪燃氣引擎的影響為何？

(A)空氣密度下降，推力上升 (B)溫度上升，推力上升 (C)溫度上升，推力下降

原始題號:0012243 題組:0 難易度:易

(C) 12. 起飛期間一直開啟化油器加溫裝置會導致

(A)混合比變稀，是馬力增加 (B)減短起飛距離 (C)增加滾行距離

原始題號:0012244 題組:0 難易度:易

(A) 13. 開啟化油器加溫裝置會導致

(A)油/氣比變濃 (B)油/氣比變稀 (C)沒有影響

原始題號:0012245 題組:0 難易度:易

(C) 14. 不受控制，在正常時間前的點火稱為

(A)瞬間燃燒 (B)爆震 (C)提前點火

原始題號:0012246 題組:0 難易度:易

(C) 15. 活塞引擎的爆震出現在

(A)過濃的混合比導致點火 (B)線路短路造成火星塞點火 (C)油/氣在汽缸中瞬間燃燒

原始題號:0012247 題組:0 難易度:易

(A) 16. 高馬力下爆震可能出現在

(A)油/氣不在正確的時間或位置被點火 (B)過濃的油/氣比導致馬力暴增 (C)汽缸中的積碳過熱導致油/氣過早點火

原始題號:0012248 題組:0 難易度:易

(B) 17. 引擎殆速下，熄火前，將點火鑰匙短暫轉到OFF位置，但是引擎正常運作不受影響：

(A)屬正常現象，引擎要等混和比調到關斷(cut-off)位置才會停止 (B)屬不正常現象，代表磁發電機(magneto)在OFF位置時並未接地 (C)這是不預期的操作，但是一切正常

原始題號:0012249 題組:0 難易度:易

(C) 18. 將點火鑰匙轉到OFF位置，但是引擎仍運作不受影響的原因是

(A)火星塞上有積碳 (B)磁發電機(magneto)的接地線連接到引擎的外殼上 (C)磁發電機的接地線有斷裂的現象

原始題號:0012250 題組:0 難易度:易

(C) 19. 若磁發電機(magneto)與點火鑰匙間的接地線有斷裂的現象，則

(A)引擎在只有一個磁發電機下將無法運作 (B)如果將點火鑰匙轉到BOTH位置亦無法發動引擎 (C)如果汽缸中有殘餘油/氣，轉動螺旋槳將可能啟動引擎

原始題號:0012251 題組:0 難易度:易

(A) 20. 檢視磁發電機(magneto)是否正常接地可以使用下列何種方式？

(A)引擎殆速下，將點火鑰匙短暫轉到OFF位置 (B)全馬力，踩住煞車下，將點火鑰匙短暫轉到OFF位置 (C)使用單一磁發電機，混合比調稀，檢視歧管壓力上升

原始題號:0012252 題組:0 難易度:易

- (B) 21. 活塞引擎內部冷卻特別依賴
(A)引擎襟翼位置的適當調整 (B)引擎滑油的循環 (C)冷媒和壓縮機的運作

原始題號:0012253 題組:0 難易度:易

- (B) 22. 異常高的引擎滑油溫度可能產生的原因為何？
(A)軸承磨損 (B)滑油的液面過低 (C)油/氣混合比過濃

原始題號:0012254 題組:0 難易度:易

- (A) 23. 應經常檢視飛機的排氣歧管式加溫裝置以避免
(A)排氣歧管破裂導致廢氣進入駕駛艙 (B)排氣歧管破裂導致馬力下降 (C)由於加熱器失效導致引擎冷卻下運轉

原始題號:0012255 題組:0 難易度:易

- (B) 24. 為達到最佳馬力和推力，應將可變螺距(constant-speed)螺旋槳槳葉角度調整到
(A)高攻角/低轉速 (B)低攻角/高轉速 (C)高攻角/高轉速

原始題號:0012256 題組:0 難易度:易

- (A) 25. 起飛時可變螺距(controllable-pitch)螺旋槳應調整到
(A)低攻角/高轉速 (B)高攻角/低轉速 (C)高攻角/高轉速

原始題號:0012257 題組:0 難易度:易

- (B) 26. 定螺距(fixed-pitch)螺旋槳設計上在何組合下效率最佳？
(A)特定高度和轉速下 (B)特定速度和轉速下 (C)特定高度和速度下

原始題號:0012258 題組:0 難易度:易

- (C) 27. 螺旋槳葉片設計上有幾何彎曲是因為
(A)使巡航時槳葉各段的傾角(angle of incidence)大致相同 (B)避免巡航時靠軸心的部分失速 (C)使巡航時槳葉各段的攻角大致相同

原始題號:0012259 題組:0 難易度:易

- (C) 28. 下列對可變螺距(constant-speed)螺旋槳的敘述何者正確？
(A)當飛行員調整油門設定時，槳葉調整裝置會控制槳葉維持固定角度 (B)在高槳葉角度下，可以減低槳葉的阻力，在起飛時提供更大的馬力 (C)可以適當的控制引擎轉速，也就是螺旋槳轉速

原始題號:0012260 題組:0 難易度:易

- (C) 29. 起飛後進入爬升階段，配備可變螺距(constant-speed)螺旋槳的飛機可藉由降低歧管壓力及何種方式來減低引擎馬力輸出？
(A)減低槳葉角度以提高轉速 (B)減低槳葉角度以減低轉速 (C)增加槳葉角度以減低轉速

原始題號:0012261 題組:0 難易度:易

- (C) 30. 由駕駛艙看，一個順時針旋轉的螺旋槳會造成何種螺旋氣流？
(A)對垂直軸而言向右，對縱軸而言向左 (B)對垂直軸而言向左，對縱軸而言向右 (C)對垂直軸而言向左，對縱軸而言向左

原始題號:0012262 題組:0 難易度:易

- (B) 31. 對配置可變螺距(constant-speed)螺旋槳及自然進氣的飛機，為避免給予引擎機件過大的壓力，應該
(A)當需要減低引擎馬力時，應該先減低轉速再減低歧管壓力 (B)當需要增加引擎馬力時，應該先增加轉速再增加歧管壓力 (C)不論需要增加或減低引擎馬力時，皆應該先調整轉速再調整歧管壓力

原始題號:0012263 題組:0 難易度:易

- (B) 32. 為什麼要避免速度超過VNE?
(A)產生的過高阻力會導致結構傷害 (B)如果遭遇亂流的話飛機可能會超過設計的負重因子 (C)會導致飛機失控

原始題號:0012264 題組:0 難易度:易

- (A) 33. 總氣流施加於機翼的作用相對於飛機的重量比值，稱為
(A)載重因子，並直接影響失速速度 (B)相對負重，並直接影響失速速度 (C)載重因子，並不影響失速速度

原始題號:0012265 題組:0 難易度:易

- (A) 34. 冷天氣操作下之飛機預熱何者正確?
(A)客艙和引擎都應該被預熱 (B)客艙不得使用移動式加熱機來預熱 (C)熱空氣應由進氣口直接加熱引擎

原始題號:0012266 題組:0 難易度:中

- (C) 35. 冷天氣預熱時，曲軸箱通風線路應特別注意，因為他們很容易阻塞，其原因為何?
(A)區軸箱內凝結的油污 (B)外界的水氣結冰 (C)區軸箱內水氣沈積後凝結結冰

原始題號:0012267 題組:0 難易度:易

- (A) 36. 如果要由濕滑並結冰的跑道起飛，如何避免起落架受積冰影響?
(A)視需要收放起落架數次 (B)延後收起起落架 (C)加速到VLE後再收起落架

原始題號:0012268 題組:0 難易度:易

- (C) 37. 下列何種類型的空速，在空速表上沒有特別顏色標示?
(A)不可超越速度 (B)無動力失速速度 (C)操作空速(maneuvering speed)

原始題號:0012269 題組:0 難易度:易

- (A) 38. 校正空速是將指示空速做何修正?
(A)儀表誤差及裝置誤差 (B)儀器誤差 (C)溫度修正

原始題號:0012270 題組:0 難易度:易

- (C) 39. 真空速是將校正空速做何修正?
(A)儀器誤差及裝置誤差 (B)溫度修正 (C)高度及溫度修正

原始題號:0012271 題組:0 難易度:中

- (B) 40. 一架飛機距離極高頻萬向導航台(VOR)60英里，而其航路偏向指示CDI偏移1/5的幅度，則航機實際偏離航道中心的距離約為
(A)6英里 (B)2英里 (C)1英里

原始題號:0012272 題組:0 難易度:中

- (A) 41. 在地面使用經FAA認可之裝備測試訊號時，合格的極高頻萬向導航台(VOR)的最大容許誤差為+
(A)4度 (B)6度 (C)8度

原始題號:0012273 題組:0 難易度:中

- (C) 42. 航管異頻響應器(transponder)除非在過去多久之內被檢視過證實可以正常操作，否則不得使用？
(A)30天內 (B)12個日曆月 (C)24個日曆月

原始題號:0012274 題組:0 難易度:易

- (B) 43. 特定外型下的失速速度/最低飛行速度代號為
(A)VS (B)VS1 (C)VS0

原始題號:0012275 題組:0 難易度:易

- (A) 44. 可控制下的失速速度/最低飛行速度代號為
(A)VS (B)VS1 (C)VS0

原始題號:0012276 題組:0 難易度:易

- (A) 45. 飛機的起飛及爬升性能表係基於下列何種條件計算出來的？
(A)壓力/密度高度 (B)客艙高度 (C)真高度

原始題號:0012277 題組:0 難易度:易

- (B) 46. 若飛機裝載時CG在範圍的最後方，則有可能在何軸的操作上較不穩定？
(A)垂直軸 (B)水平軸 (C)縱軸

原始題號:0012278 題組:0 難易度:易

- (B) 47. 進場和落地時襟翼的一項主要功能為
(A)在不增加速度下減低下降角度 (B)較低速度下提供相同升力 (C)減低升力，使飛機以更陡的角度進場

原始題號:0012279 題組:0 難易度:易

- (B) 48. 縱向穩定靠何控制面維持？
(A)舵 (B)升降面 (C)副翼

原始題號:0012280 題組:0 難易度:易

- (B) 49. 羅盤的磁偏差角度
(A)隨時間改變 (B)隨方向改變 (C)同地方所有的飛機都一樣

原始題號:0012281 題組:0 難易度:易

- (B) 50. 最大結構巡航速度是指飛機在何條件下的最大速度？
(A)劇烈操作下 (B)一般操作下 (C)平穩氣流下

原始題號:0012282 題組:0 難易度:中

- (C) 51. 轉向協調器和轉向側滑指示器的差異為，轉向協調器
(A)是電操作，轉向協調器為真空操作 (B)只有指示轉向角度，而轉向側滑指示器同時另外指示是否協調及轉向率 (C)指示滾轉率，轉向率及是否協調，而轉向側滑指示器指示轉向率及是否協調

原始題號:0012283 題組:0 難易度:易

- (A) 52. 電力轉向協調器相較於其他真空操作儀器的優點為：
(A)可作為真空操作系統故障時的備份儀表 (B)可靠度較佳 (C)相對於真空操作儀器較不會翻轉

原始題號:0012284 題組:0 難易度:中

- (C) 53. 緊急定位發射器之最長累積使用時間為多久，此緊急定位發射器的電池就必須更換或充電
(A)30分鐘 (B)45分鐘 (C)60分鐘

原始題號:0012285 題組:0 難易度:中

- (C) 54. 儀器飛航條件下，極高頻萬向導航台(VOR)必須在多久前完成操作檢查
(A)30天或30小時之飛行時間 (B)10天或10小時之飛行時間 (C)30天

原始題號:0012286 題組:0 難易度:中

- (B) 55. 極高頻萬向導航台(VOR)在檢查其使用狀況後必須記錄
(A)使用之極高頻萬向導航台(VOR)名稱，檢查地點，誤差角度和檢查日期 (B)檢查日期，地點，誤差角度及簽名 (C)使用之極高頻萬向導航台(VOR)名稱，誤差角度，檢查日期和簽名

原始題號:0012287 題組:0 難易度:中

- (C) 56. 如果飛機被歸類為utility等級，則可進行何種飛航？
(A)有限制的特技動作，不包括螺旋動作 (B)任何特技及螺旋以外的操作 (C)有限制的特技動作，包括螺旋動作（如果經過許可）

原始題號:0012288 題組:0 難易度:中

- (B) 57. 關於維修檢查的敘述何者正確？
(A)100小時檢查可以取代年度檢查 (B)年度檢查可以取代100小時檢查 (C)即使其他合法的檢查系統(progressive inspection system)已經執行，年度檢查仍然必須要做

原始題號:0012289 題組:0 難易度:中

- (B) 58. 如果年度檢查已完成並且飛機已經上線值勤則必須記錄在
(A)適航認證上 (B)飛機維修記錄本上 (C)FAA認可之飛航手冊上

原始題號:0012290 題組:0 難易度:中

- (A) 59. 飛機的適航認證持續有效直到
(A)需要維修檢查為止 (B)年度維修為止 (C)年度檢查或100小時檢查到期前為止

原始題號:0012291 題組:0 難易度:中

- (C) 60. 飛機的維修記錄必須包含
(A)適航認證 (B)引擎和機體的年限（檢查日期） (C)引擎，機體，螺旋槳和任何其他裝置的年限（檢查日期）

原始題號:0012292 題組:0 難易度:中

- (B) 61. 關於飛行員進行預防性維修檢查的敘述何者正確？
(A)不需要做預防性維修檢查 (B)預防性維修檢查必須記錄在維修本上 (C)預防性維修檢查必須記錄在FAA認可之飛航手冊上

原始題號:0012293 題組:0 難易度:中

- (A) 62. 螺旋槳調速器控制何者？
(A)通往螺距改變機構的滑油 (B)增壓幫浦變速彈簧的張力 (C)移動連動與配重

原始題號:0012294 題組:0 難易度:中

- (A) 63. 何種力對螺旋槳產生最大的應力？
(A)離心力 (B)扭力撓曲 (C)氣動力扭曲

原始題號:0012295 題組:0 難易度:中

- (B) 64. 何種力會增加螺旋槳槳葉的角度?
(A)扭力撓曲 (B)氣動力扭曲 (C)離心扭距

原始題號:0012296 題組:0 難易度:中

- (B) 65. 何種力會使螺旋槳順槳?
(A)扭力撓曲 (B)氣動力扭曲 (C)離心扭距

原始題號:0012297 題組:0 難易度:易

- (C) 66. 何種飛行狀態會使螺旋槳槳葉保持最大的角度?
(A)初始爬升階段 (B)進場落地 (C)高空高速巡航

原始題號:0012298 題組:0 難易度:中

- (B) 67. 巡航增加油門會使螺旋槳?
(A)減少螺旋槳槳葉的角度 (B)增加螺旋槳槳葉的角度 (C)增加螺旋槳的轉速

原始題號:0012299 題組:0 難易度:中

- (C) 68. 螺旋槳的同步調相系統的功能為何?
(A)使所有的螺旋槳轉速相同 (B)設定所有的螺旋槳槳葉角度在相同位置 (C)設定副引擎與主引擎螺旋槳轉動的相位差

原始題號:0012300 題組:0 難易度:易

- (C) 69. 往復引擎將化學能轉換為機械能的行程依序為?
(A)點火, 壓縮, 動力, 排氣 (B)壓縮, 點火, 進氣, 動力, 排氣 (C)進氣, 壓縮, 點火, 動力, 排氣

原始題號:0012301 題組:0 難易度:中

- (C) 70. 往復引擎的活塞排氣量為?
(A)每單位氣缸體積產生馬力輸出的比值 (B)曲軸完成一圈轉動單一活塞所置換的總體積 (C)曲軸完成一圈轉動所有活塞所置換的總體積

原始題號:0012302 題組:0 難易度:中

- (C) 71. 下列何種情況可能造成引擎在低轉速時進氣系統回火?
(A)進氣口堵塞 (B)怠轉太低 (C)空燃比過稀

原始題號:0012303 題組:0 難易度:中

- (C) 72. 滑油冷排旁通閥的功能為何?
(A)當滑油冷排堵塞時旁通滑油 (B)控制並限制滑油壓力 (C)根據滑油溫度及黏性, 控制滑油通過冷排的流量

原始題號:0012304 題組:0 難易度:易

- (C) 73. 引擎提前點火的現象是?
(A)間歇性點火及缸溫低 (B)排氣系統放炮並產生火星或後燃 (C)引擎震動及氣缸頭溫度驟升

原始題號:0012305 題組:0 難易度:中

- (A) 74. 引擎提前點火的第一步處置為?
(A)降低油門 (B)提高空燃比 (C)降低空燃比

原始題號:0012306 題組:0 難易度:中

(A) 75. 引擎液鎖時試圖發動引擎會造成?

(A)連桿彎曲或斷裂 (B)起動器齒輪箱超扭 (C)氣缸下部的燃油或滑油會噴入排氣系統造成後燃

原始題號:0012307 題組:0 難易度:中

(C) 76. 在引擎注水系統中加入酒精的目的為?

(A)增加辛烷值 (B)提供更大冷卻 (C)避免結冰

原始題號:0012308 題組:0 難易度:中

(C) 77. 造成引擎爆震的原因可能為?

(A)高辛烷值燃油 (B)歧管壓力低 (C)進氣溫度高

原始題號:0012309 題組:0 難易度:中

(B) 78. 燃油加壓幫浦的功能為?

(A)給噴射化油器提供壓力 (B)避免高溫導致氣鎖 (C)避免高壓導致氣鎖

原始題號:0012310 題組:0 難易度:中

(A) 79. 引擎注水系統的功能為?

(A)抑制爆震 (B)增加燃油效率 (C)避免化油器結冰

原始題號:0012311 題組:0 難易度:易

(B) 80. 電磁式斷路器的特性為何?

(A)自動重設 (B)可立即重設 (C)必須等待短時間後才能重設

原始題號:0012312 題組:0 難易度:中

(B) 81. 化油器結冰會導致什麼現象?

(A)螺旋槳的轉速降低 (B)歧管壓力降低 (C)富油導致回火

原始題號:0012313 題組:0 難易度:中

(B) 82. 加壓噴射化油器通常較產生何種結冰?

(A)燃油結冰 (B)進氣結冰 (C)揮發性結冰

原始題號:0012314 題組:0 難易度:易

(A) 83. 在駕駛艙玻璃窗加熱系統中,何者使玻璃窗能保持正常溫度?

(A)熱變阻器 (B)電子擴大器 (C)熱超溫開關

原始題號:0012315 題組:0 難易度:中

(C) 84. 光電式煙霧偵測器的工作原理為?

(A)光電式煙霧偵測器只在有煙時產生警告 (B)光電式煙霧偵測器測量特定的煙霧量 (C)光電式煙霧偵測器測量特定的光度

原始題號:0012316 題組:0 難易度:易

(B) 85. 火警偵測系統中的熱電偶如何啟動警告裝置?

(A)熱能增加電阻 (B)熱能產生小電流 (C)熱膨脹形成接地

原始題號:0012317 題組:0 難易度:中

(C) 86. 保持同高度由冷飛到熱的區域,無自動燃氣比調整的化油器,其燃氣比會如何變化?

(A)引擎因進氣密度提高造成輸出馬力下降 (B)引擎因空氣熱膨脹使進氣量增加,因此輸出馬力提升 (C)引擎因進氣密度降低造成富油,導致輸出馬力下降

原始題號:0012318 題組:0 難易度:中

(A) 87. 化油器加熱後對引擎輸出有何影響?

(A)容積效率降低 (B)造成貧油且馬力下降 (C)燃氣比增加

原始題號:0012319 題組:0 難易度:易

(B) 88. 飛機的重心通常以機身何處為參考點, 其單位如何表示?

(A)重心前限, 英吋 (B)平均氣動力弦前端, 百分比 (C)翼前緣, 百分比

原始題號:0012320 題組:0 難易度:易

(C) 89. 飛機的重心以何參考軸來計算?

(A)橫軸 (B)垂直軸 (C)縱軸

原始題號:0012321 題組:0 難易度:易

(A) 90. Zero fuel weight 的定義為?

(A) basic operating weight plus payload. (B) empty weight plus passengers and cargo. (C) takeoff weight minus fuel to destination and alternate.

原始題號:0012322 題組:0 難易度:中

(A) 91. 以控制燃油比來關車的目的為?

(A)避免意外開車 (B)避免下次開車時液鎖 (C)確保進氣系統無燃油, 避免火警

原始題號:0012323 題組:0 難易度:易

(B) 92. 滑油的黏度係數為何?

(A)表示滑油在實驗室低溫下的流動性 (B)估計滑油在溫度變化時黏度的變化率 (C)表示該滑油與美國石油協會參考滑油的比重

原始題號:0012324 題組:0 難易度:易

(C) 93. 起落架的伸放與壓縮會啟動哪個安全裝置?

(A) Uplock switch. (B) Downlock switch. (C) Ground safety switch.

原始題號:0012325 題組:0 難易度:中

(B) 94. 乘客使用的氧氣系統為何?

(A)量控式 (B)定流式 (C)稀釋量控式

原始題號:0012326 題組:0 難易度:中

(C) 95. 駕駛艙使用的氧氣系統為何?

(A)定流式 (B)稀相式 (C)稀釋量控式

原始題號:0012327 題組:0 難易度:中

(B) 96. 主輪的某一輪胎之熱熔器熔化而洩氣, 這意謂?

(A)大煞車使用後造成輪胎過熱, 使輪圈上的塑膠熱熔器熔化, 如此可避免輪胎因高溫而有爆炸的危險 (B)輪胎之高溫使輪圈上的金屬熱熔器熔化, 造成輪胎洩氣 (C)輪胎之高溫使輪胎上的溫度感應閥熔化, 造成輪胎洩氣, 如此可避免機翼受損

原始題號:0012328 題組:0 難易度:易

(A) 97. 飛機主輪上之可熔塞作用為何?

(A)避免輪胎爆炸 (B)便於快速洩氣維修 (C)保護防滑系統的電系

原始題號:0012329 題組:0 難易度:易

(B) 98. 潑水劑使用時機為何?

(A)進入降雨區前 (B)開始降雨後 (C)當擋風玻璃是乾的時

原始題號:0012330 題組:0 難易度:中

(C) 99. 加熱駕駛艙玻璃窗的目的為何?

(A)除冰 (B)避免熱震 (C)鳥擊保護

原始題號:0012331 題組:0 難易度:中

(B) 100. 防滑煞車系統中的控制盒作用為何?

(A)感應輪速改變 (B)避免帶煞車落地 (C)量測煞車力道避免輪胎鎖死

原始題號:0012332 題組:0 難易度:中

(A) 101. 引擎直驅的油壓幫浦如何調節壓力?

(A)系統旁通閥 (B)恆速轉動器 (C)管路中的可變孔口

原始題號:0012333 題組:0 難易度:易

(A) 102. 氣動系統中的濕氣可能導致?

(A)腐蝕 (B)各類異聲如爆震, 嘯聲和抖動 (C)當作動時氣壓下降會導致回油管路結冰

原始題號:0012334 題組:0 難易度:易

(A) 103. 緊急氣動系統的氣瓶通常填充何種氣體?

(A)氮氣 (B)乾氧 (C)二氧化碳

原始題號:0012335 題組:0 難易度:中

(B) 104. 液壓驅動器之作用為何?

(A)壓縮液壓油 (B)吸引驟變之壓力 (C)儲存少量因系統洩露之液壓油

原始題號:0012336 題組:0 難易度:中

(C) 105. 關於潑水劑之使用, 下列何者正確?

(A)降雨後儘早使用, 以使雨水和擋風玻璃間產生屏障 (B)先使用潑水劑, 再用雨刷將其均勻分佈 (C)使用次數以雨量大小決定

原始題號:0012337 題組:0 難易度:中

(C) 106. 為何合成液壓油必須存放在氣密容器?

(A)高揮發率 (B)此油氣有劇毒 (C)易吸溼而污染

原始題號:0012338 題組:0 難易度:易

(C) 107. 當客艙壓力控制器為壓差模式時, 參考氣壓會藉何排氣?

(A)洩壓閥 (B)等壓計量閥 (C)差壓計量閥

原始題號:0012339 題組:0 難易度:中

(B) 108. 在加壓系統中, 洩壓閥的功能為?

(A)釋放負壓差 (B)釋放客艙之正差 (C)釋放客艙超限之壓差

原始題號:0012340 題組:0 難易度:中

(B) 109. 客艙壓力設定是直接控制?

(A)壓縮機速度 (B)出流閥門開啟 (C)氣動系統之壓力

原始題號:0012341 題組:0 難易度:易

(B) 110. 艙壓控制系統中的哪個部份能避免客艙高度高於飛機高度?

(A)客艙下降率控制器 (B)負壓排氣閥 (C)壓縮比限制開關

原始題號:0012342 題組:0 難易度:易

(B) 111. 若客艙爬升率過大, 應如何控制艙壓?

(A)緩慢打開出流閥門 (B)迅速關閉出流閥門 (C)增加進氣量

原始題號:0012343 題組:0 難易度:中

(B) 112. 如何控制客艙艙壓

(A)調整壓縮機輸出的壓力閥 (B)出流閥門依設定值排氣降壓 (C)入流閥門依設定值調整進氣流量

原始題號:0012344 題組:0 難易度:易

(A) 113. 何謂客艙壓差?

(A)客艙內與外界的壓力差 (B)客艙飛行高度的壓力與海平面的壓力差 (C)客艙設定艙壓與實際艙壓差

原始題號:0012345 題組:0 難易度:易

(C) 114. 哪個儀表能指示艙壓變化率, 其單位為何?

(A)壓力控制器, PSI (B)客艙升降率表, PSI (C)客艙升降率表, feet per minute

原始題號:0012346 題組:0 難易度:易

(B) 115. 渦輪引擎的哪個部份提供空調用分氣?

(A)進氣口 (B)壓縮機 (C)燃燒室

原始題號:0012347 題組:0 難易度:中

(A) 116. 空氣循環冷卻系統的哪個部份會降壓及降溫?

(A)膨脹渦輪機 (B)主熱交換器 (C)冷卻旁通閥

原始題號:0012348 題組:0 難易度:中

(C) 117. 空氣循環冷卻系統的組成為何?

(A)加熱器, 冷卻器和壓縮機 (B)衝壓氣源, 壓縮機及引擎分氣 (C)壓縮空氣的氣源, 熱交換器及渦輪機

原始題號:0012349 題組:0 難易度:易

(B) 118. 空氣循環冷卻系統如何提供冷氣?

(A)將加熱的空氣導入壓縮機 (B)將空氣導入膨脹渦輪機並吸收其熱能 (C)將空氣導入含冷煤的冷卻環

原始題號:0012350 題組:0 難易度:中

(B) 119. 下列何種客艙空調系統使用冷煤來降溫?

(A)空氣循環式 (B)蒸氣循環式 (C)蒸發式風箱

原始題號:0012351 題組:0 難易度:中

(A) 120. 下列何種艙壓控制系統使用控制器內參考氣室的壓力, 來調整出流閥門?

(A)等壓式及差壓式 (B)未加壓及加壓控制 (C)周圍, 差壓及最大壓差

原始題號:0012352 題組:0 難易度:中

(B) 121. 鉛酸電池使用的電解液為何?

(A)硼酸 (B)硫酸 (C)氫氧化鉀

原始題號:0012353 題組:0 難易度:中

(B) 122. 鎳鎘電池中的電解液特性為何

(A)無腐蝕性 (B)類似家用鹼水, 可能造成嚴重灼傷 (C)比鉛酸電池所使用的電解液較無害

原始題號:0012354 題組:0 難易度:中

(C) 123. 下列何者能中和鎳鎘電池的電解液

(A)肥皂與水 (B)蘇打的碳酸氫鹽 (C)硼酸溶液, 醋, 檸檬汁等弱酸

原始題號:0012355 題組:0 難易度:中

(C) 124. 使用熔絲型限流器的目的為何?

(A)避免低功率迴路超載 (B)快速斷路之設計可保護敏感的裝備或迴路 (C)允許熔絲熔斷前的短時間超載

原始題號:0012356 題組:0 難易度:中

(C) 125. 為何配線及電氣單元的封裝要使用金屬材質

(A)免除地線 (B)避免靜電 (C)消除無線電電磁波干擾

原始題號:0012357 題組:0 難易度:中

(C) 126. 何謂殘壓?

(A)與電流相位不同所產生的電壓 (B)儲存在發電機激磁器輸出線圈的電壓 (C)交流發電機中, 能啟動電力輸出的永久磁鐵產生的電壓

原始題號:0012358 題組:0 難易度:中

(B) 127. 繼電器與電磁開關有何不同?

(A)繼電器有移動的線圈 (B)電磁開關有移動的線圈 (C)繼電器是當成機械控制裝置使用

原始題號:0012359 題組:0 難易度:易

(A) 128. 電氣系中繼電器的作用為何?

(A)能用小開關遙控大電流的裝備 (B)借由接地避免靜電累積 (C)使起動器齒輪作動, 移開鎖定插銷或其他機械控制裝置

原始題號:0012360 題組:0 難易度:中

(C) 129. 使用 115 volts, 400-Hz AC 的優點為何?

(A)可使用整流器改變電壓, 節省空間及重量 (B)高頻的誘導阻抗能提高電流, 及傳輸效率較高 (C)與相同輸出之DC馬達相比, 高電壓的AC馬達較小較輕

原始題號:0012361 題組:0 難易度:中

(B) 130. 為何在連接或移除電池前應先關閉所有的負載及電源?

(A)避免電池放電 (B)避免火花點燃爆炸性氣體 (C)避免電源驟變造成敏感裝備跳電

原始題號:0012362 題組:0 難易度:易

(B) 131. 飛機上的可見的靜電放電現象稱為?

(A)Corona threshold. (B)Saint Elmo's fire. (C)Precipitation static.

原始題號:0012363 題組:0 難易度:易

(C) 132. 飛機電池輸出為 45 amperes- 2.5 hours, 可換算為多少 amperes- hours?

(A)90.0 ampere-hour. (B)18.0 ampere-hour. (C)112.5 ampere-hour.

原始題號:0012364 題組:0 難易度:易

(C) 133. 飛機上計算保險絲容量的單位為何?

(A)volts. (B)watts. (C)amperes.

原始題號:0012365 題組:0 難易度:易

(A) 134. 關於飛機上的電氣系中斷路器自動重設功能, 下列何者正確?

(A)不作為迴路保護裝置使用 (B)使用在所有電氣系的迴路 (C)只應用在會暫時超載的裝備上

原始題號:0012366 題組:0 難易度:易

(A) 135. 電氣系中繼電器的作用為何?

(A)磁力開關 (B)增壓器 (C)低電阻的導體

原始題號:0012367 題組:0 難易度:易

(B) 136. 發電機的輸出為何計算?

(A)Watts at rated voltage. (B)Amperes at rated voltage. (C) Voltage at rated amperes.

原始題號:0012368 題組:0 難易度:易

(B) 137. 電氣系中功率的單位為何?

(A)Volts. (B) Watts. (C)Amperes.

原始題號:0012369 題組:0 難易度:中

(B) 138. 儀表燈光系統斷路器的功能為何?

(A)保護燈光避免電流過大 (B)保護配線避免電流過大 (C)避免配線電壓過高

原始題號:0012370 題組:0 難易度:中

(A) 139. 交流發電機控制器的保護功能為何?

(A)斷相, 欠激及超壓 (B)欠壓, 差速故障, 手動並聯 (C)發電機欠速, 匯流排聯絡斷路器自動關閉

原始題號:0012371 題組:0 難易度:中

(B) 140. 平行匯流排電氣系的特性為何?

(A)外電源能與發電機並聯使用 (B)當某一發電機失效時能自動分配電負載 (C)每個發電機獨立供電給對應的匯流排

原始題號:0012372 題組:0 難易度:易

(A) 141. 變壓整流器的功能為何?

(A)將 115 volts 400-Hz AC 轉換為 28 volts DC. (B)將 DC 轉為 26 volts 或 115 volts 400-Hz AC (C)利用飛機的電池來運作緊急飛行儀表及無線電

原始題號:0012373 題組:0 難易度:易

(C) 142. 二十單元電池組的鎳鎘電池在充分充電後電壓應為多少?

(A) 12 volts. (B) 20 volts. (C)25 volts.

原始題號:0012374 題組:0 難易度:中

(B) 143. 為何鎳鎘電池必須定期完全放電後充電?

(A)重置電解質的液面 (B)消除電池失衡及容量損失 (C)溶解正極上的鎳氧化物來恢復電池容量

原始題號:0012375 題組:0 難易度:中

(C) 144. 何者會導致鎳鎘電池的電池失衡效應

(A)低溫 (B)大量快速放電 (C)定壓充電

原始題號:0012376 題組:0 難易度:中

(C) 145. 交流發電機的恆速傳動器功能為何?

(A)控制磁場強度 (B)調整發電機電壓 (C)保持固定的頻率

原始題號:0012377 題組:0 難易度:易

(B) 146. 交流電的頻率代表何種指示?

(A)引擎 N(2) 指示 (B)發電機 RPM. (C)恆速傳動器的輸入轉速

原始題號:0012378 題組:0 難易度:易

(C) 147. 飛機的交流發電機輸出單位為何?

(A) Volts. (B)Kilowatts (KW). (C)Kilovolt-amps (KVA).

原始題號:0012379 題組:0 難易度:中

(B) 148. 變流機的功能為何?

(A)將 115 volts ac 轉為 28 volts dc. (B)將 DC 轉為 115 volts 400-Hz AC (C)將 26/29 volts DC 變壓為 115/200 volts DC.

原始題號:0012380 題組:0 難易度:易

(C) 149. 反流繼電器的功能為何?

(A)避免某個發電機驅動另一個發動機 (B)調整發電機的電壓以對應本身的負荷 (C)當發電機的電壓低於電池的電壓時,使發電機與主匯流排斷路

原始題號:0012381 題組:0 難易度:易

(B) 150. 六單元電池組的鉛酸電池在充分充電後電壓應為多少?

(A) 6 volts. (B) 12 volts. (C)24 volts.

原始題號:0012382 題組:0 難易度:易

(A) 151. 飛機主輪上之可熔塞是用來避免?

(A)輪胎爆破 (B)過度使用 (C)熱膨脹損壞輪胎

原始題號:0012383 題組:0 難易度:易

(B) 152. 如充氣不足會形成何胎面磨損?

(A)緩慢地平均磨損 (B)胎面兩側比中間磨損較多 (C)中間部位加快磨損

原始題號:0012384 題組:0 難易度:易

(C) 153. 如充氣過度會形成何胎面磨損?

(A)緩慢地平均磨損 (B)胎面兩側比中間磨損較多 (C)中間部位加快磨損

原始題號:0012385 題組:0 難易度:中

(C) 154. 雙鼻輪輪胎的脊紋應置於何處?

(A)每個輪胎的兩側 (B)只在輪胎的內側 (C)只在輪胎的外側

原始題號:0012386 題組:0 難易度:中

(C) 155. 輪胎上的脊紋的功能為何?

(A)增加在積雪或積冰跑道上的抓地力 (B)減輕濕跑道上的Hydroplane的傾向 (C)將積水或濕冰導離引擎進氣口

原始題號:0012387 題組:0 難易度:易

(C) 156. 下列何者為飛操系統中的基本控制面?

(A)調整片 (B)襟翼 (C)外側副翼

原始題號:0012388 題組:0 難易度:易

(B) 157. 下列何者為飛操系統中的二級控制面?

(A)方向舵 (B)伺服片 (C)內側副翼

原始題號:0012389 題組:0 難易度:易

(C) 158. 當主操縱面移動時, 升降舵上的調整片如何動作?

(A)同向 (B)反向 (C)不動

原始題號:0012390 題組:0 難易度:易

(A) 159. 駕駛桿操作時副翼的移動方向為何?

(A)駕駛桿向右時左副翼向下 (B)駕駛桿向左時右副翼向上 (C)駕駛桿向左時左副翼向下

原始題號:0012391 題組:0 難易度:易

(A) 160. 機翼前緣襟翼的作用為何?

(A)增加機翼曲度 (B)在空速不增加下, 減少升力 (C)在高攻角時導引氣流通過機翼上方

原始題號:0012392 題組:0 難易度:易

(B) 161. 飛行擾流板的作用為何?

(A)增加機翼曲度 (B)在空速不增加下, 減少升力 (C)在高攻角時導引氣流通過機翼上方

原始題號:0012393 題組:0 難易度:易

(A) 162. 地面擾流板的作用為何?

(A)著陸時減少機翼昇力 (B)輔助轉彎 (C)在空速不增加下, 增加下降率

原始題號:0012394 題組:0 難易度:中

(A) 163. 機翼上的渦旋產生器的作用為何?

(A)避免震波誘發之氣流分離 (B)提高阻力驟升之速度並增加高速時副翼之效用 (C)阻斷機翼方向的氣流, 以使翼根比翼尖先失速

原始題號:0012395 題組:0 難易度:中

(A) 164. 機翼上的渦旋產生器有何缺點?

(A)低速時阻力稍微增加 (B)高速時寄生阻力顯著增加 (C)震波誘發之氣流分離會增加控制面?震

原始題號:0012396 題組:0 難易度:中

(A) 165. 將水平尾翼設置在垂直尾翼上方之設計有何缺點?

(A)結構較重 (B)螺旋性能不良 (C)垂直尾及方向舵因水平尾翼位置的端板作用, 造成效能較差

原始題號:0012397 題組:0 難易度:易

(C) 166. 將水平尾翼設置在垂直尾翼上方之設計有何優點?

(A)減輕結構重量 (B)巡航較為省油 (C)水平尾翼能避開機翼擾流

原始題號:0012398 題組:0 難易度:易

(B) 167. 液壓系統中的固定接頭有靜態滲漏時應如何處置?

(A)降低儲壓器壓力 (B)通知修護維修 (C)加壓液壓系統並測試液壓功能

原始題號:0012399 題組:0 難易度:中

(B) 168. Skydrol(液壓油)的優點為何?

(A)能抗水 (B)工作溫度範圍廣 (C)與植物性油基液壓油相容

原始題號:0012400 題組:0 難易度:中

(C) 169. Skydrol(液壓油)的缺點為何?

(A)與合成基礎油不相容 (B)應避免在 -40°C 以下工作 (C)會破壞某些電氣系的絕緣

原始題號:0012401 題組:0 難易度:中

(A) 170. 液壓油濾中的旁通閥作用為何?

(A)旁通阻塞物 (B)控制流量以保持液壓油正常的溫度及黏度 (C)確保在引擎開車時液壓油流量正確,直到油溫升高至液壓油可自由流動

原始題號:0012402 題組:0 難易度:易

(C) 171. 若液壓油不慎接觸到眼睛時應如何處置?

(A)使用眼影膏 (B)用肥皂與水徹底沖洗 (C)用水沖洗並送醫

原始題號:0012403 題組:0 難易度:易

(B) 172. 如何清除皮膚上的液壓油(Skydrol)?

(A)溶劑 (B)肥皂與水 (C)三氯乙烯

原始題號:0012404 題組:0 難易度:中

(A) 173. 液壓儲壓器的作用為何?

(A)在加壓下儲存液壓油 (B)收集滲漏之液壓油 (C)在液壓油流回液壓儲油槽前收集泡沫並排空氣體

原始題號:0012405 題組:0 難易度:易

(A) 174. 液壓儲壓器應填充何種氣體?

(A)氮氣 (B)乾氧 (C)二氧化碳

原始題號:0012406 題組:0 難易度:易

(C) 175. 液壓保險絲的作用原理為何?

(A)熱 (B)電 (C)壓差

原始題號:0012407 題組:0 難易度:易

(B) 176. 加壓液壓儲油槽的目的為何?

(A)提供備用壓力源 (B)確保在高空中無泡沫的液壓油能正確地流進油壓幫浦 (C)確保在產生負G時液壓油能順利地流進油壓幫浦

原始題號:0012408 題組:0 難易度:易

(C) 177. 為何必須液壓油過濾?

(A)液壓油內的水可能結冰 (B)確保無泡沫的液壓油能正確地流進油壓幫浦入口 (C)污染物可能造成油封或剛油缸受損導致內部滲漏

原始題號:0012409 題組:0 難易度:中

(A) 178. 活塞式的儲壓器有何優點?

(A)比球型儲壓器的截面積小 (B)比囊式儲壓器的輸出壓力大 (C)比隔膜式儲壓器能儲存較多液壓油

原始題號:0012410 題組:0 難易度:中

(C) 179. 液壓系統中的順序閥和優先閥有何不同?

(A)順序閥為電動驅動 (B)優先閥以機械接觸驅動 (C)優先閥以液壓驅動

原始題號:0012411 題組:0 難易度:中

(A) 180. 液壓保險絲的作用原理為何?

(A)液壓油流量 (B)熱能上升 (C)壓力上升

原始題號:0012412 題組:0 難易度:中

(B) 181. 何種設計的引擎直驅的油壓幫浦可以調節輸出壓力?

(A)恆速轉動器 (B)可變容積幫浦 (C)管路中的可變孔口

原始題號:0012413 題組:0 難易度:中

(B) 182. 何種液壓裝置通常會採用"雙作動不對稱線性驅動器"?

(A)煞車 (B)起落架 (C)自動駕駛的伺服器

原始題號:0012414 題組:0 難易度:中

(C) 183. 何種液壓裝置通常會採用"雙作動對稱線性驅動器"?

(A)煞車 (B)起落架 (C)自動駕駛的伺服器

原始題號:0012415 題組:0 難易度:中

(A) 184. 如進氣系統與歧管壓力計之間的管線破損, 歧管壓力計會顯示何種壓力

(A)外界氣壓 (B)標準大氣壓力 (C)高於大氣壓力, 若歧管壓力高於大氣壓力下操作

原始題號:0012416 題組:0 難易度:中

(C) 185. 螺旋槳順槳系統的特性為何?

(A)任何油門位置都能使自動順槳系統作用? (B)起飛時將油門收至怠速會使自動順槳系統作用 (C)槳葉是靠氣動力保持在全順槳位置

原始題號:0012417 題組:0 難易度:中

(C) 186. 如何使 Hamilton-Standard Hydromatic propeller 解除順槳?

(A)使飛機保持小角度滑降並啟動螺旋槳自轉 (B)關閉自動順槳系統, 並將螺旋槳轉速推至最高 (C)按住順槳按鈕直到螺旋槳自轉, 然後放開按鈕重新啟動

原始題號:0012418 題組:0 難易度:易

(C) 187. 往復引擎在滑行時提高油門會有何現象?

(A)螺旋槳角度減少 (B)螺旋槳角度增加 (C)螺旋槳轉速提高

原始題號:0012419 題組:0 難易度:易

(A) 188. 何種力會使螺旋槳產生與旋轉方向相反的彎曲?

(A)扭力撓曲 (B)氣動力扭曲 (C)離心撓曲

原始題號:0012420 題組:0 難易度:中

(B) 189. 關車時螺旋槳轉速不變代表?

(A)怠速燃氣比正確 (B)怠速燃氣比太稀 (C)怠速燃氣比太濃

原始題號:0012421 題組:0 難易度:中

(C) 190. 關車時螺旋槳轉速約提高125轉代表?

(A)怠速燃氣比正確 (B)怠速燃氣比太稀 (C)怠速燃氣比太濃

原始題號:0012422 題組:0 難易度:中 (R20180611)

(B) 191. 燃油加壓幫浦的主要目的為？

(A)避免起飛時無法供油 (B)提供正向的燃油流量至引擎幫浦 (C)提供油箱傳油避免燃油不平衡

(A25) CPL航空器一般維護

最近更新日期：107/06/11；更新題號：0012422

原始題號:0012232 題組:0 難易度:易

- (C) 1. The CG of an aircraft can be determined by which of the following methods?
(A)Dividing total arms by total moments (B)Multiplying total arms by total weight (C)Dividing total moments by total weight

原始題號:0012233 題組:0 難易度:易

- (A) 2. When computing weight and balance, the basic empty weight includes the weight of the airframe, engine(s), and all installed optional equipment. Basic empty weight also includes
(A)the unusable fuel, full operating fluids, and full oil (B)all usable fuel, full oil, hydraulic fluid, but does not include the weight of pilot, passengers, or baggage (C)all usable fuel and oil, but does not include any radio equipment or instruments that were installed by someone other than the manufacturer

原始題號:0012234 題組:0 難易度:易

- (A) 3. Fouling of spark plugs is more apt to occur if the aircraft
(A)gains altitude with no mixture adjustment (B)descends from altitude with no mixture adjustment (C)throttle is advanced very abruptly

原始題號:0012235 題組:0 難易度:易

- (C) 4. What will occur if no leaning is made with the mixture control as the flight altitude increases?
(A)The volume of air entering the carburetor decreases and the amount of fuel decreases (B)The density of air entering the carburetor decreases and the amount of fuel increases (C)The density of air entering the carburetor decreases and the amount of fuel remains constant

原始題號:0012236 題組:0 難易度:易

- (C) 5. Applying carburetor heat will
(A) not affect the mixture (B) lean the fuel/air mixture (C)enrich the fuel/air mixture

原始題號:0012237 題組:0 難易度:易

- (C) 6. Unless adjusted, the fuel/air mixture becomes richer with an increase in altitude because the amount of fuel
(A)decreases while the volume of air decreases (B)remains constant while the volume of air decreases (C)remains constant while the density of air decreases

原始題號:0012238 題組:0 難易度:易

- (A) 7. The basic purpose of adjusting the fuel/air mixture control at altitude is to
(A)decrease the fuel flow to compensate for decreased air density (B)decrease the amount of fuel in the mixture to compensate for increased air density
(C)increase the amount of fuel in the mixture to compensate for the decrease in pressure and density of the air

原始題號:0012239 題組:0 難易度:易

- (B) 8. At high altitudes, an excessively rich mixture will cause the
(A)engine to overheat (B)fouling of spark plugs (C)engine to operate smoother even though fuel consumption is increased

原始題號:0012240 題組:0 難易度:易

- (C) 9. The pilot controls the air/fuel ratio with the
(A)throttle (B)manifold pressure (C)mixture control

原始題號:0012241 題組:0 難易度:易

- (B) 10. Fuel/air ratio is the ratio between the
(A)volume of fuel and volume of air entering the cylinder (B)weight of fuel and weight of air entering the cylinder (C)weight of fuel and weight of air entering the carburetor

原始題號:0012242 題組:0 難易度:易

- (C) 11. What effect, if any, would a change in ambient temperature or air density have on gas turbine engine performance?
(A)As air density decreases, thrust increases (B)As temperature increases, thrust increases (C)As temperature increases, thrust decreases

原始題號:0012243 題組:0 難易度:易

- (C) 12. Leaving the carburetor heat on during takeoff
(A)leans the mixture for more power on takeoff (B)will decrease the takeoff distance (C)will increase the ground roll

原始題號:0012244 題組:0 難易度:易

- (A) 13. Which statement is true concerning the effect of the application of carburetor heat?
(A)It enriches the fuel/air mixture (B)It leans the fuel/air mixture (C)It has no effect on the fuel/air mixture

原始題號:0012245 題組:0 難易度:易

- (C) 14. The uncontrolled firing of the fuel/air charge in advance of normal spark ignition is known as
(A)instantaneous combustion (B)detonation (C)pre-ignition

原始題號:0012246 題組:0 難易度:易

- (C) 15. Detonation occurs in a reciprocating aircraft engine when
(A)there is an explosive increase of fuel caused by too rich a fuel/air mixture
(B)the spark plugs receive an electrical jolt caused by a short in the wiring
(C)the unburned fuel/air charge in the cylinders is subjected to instantaneous combustion

原始題號:0012247 題組:0 難易度:易

- (A) 16. Detonation may occur at high-power settings when
(A)the fuel mixture ignites instantaneously instead of burning progressively and evenly (B)an excessively rich fuel mixture causes an explosive gain in power
(C)the fuel mixture is ignited too early by hot carbon deposits in the cylinder

原始題號:0012248 題組:0 難易度:易

- (B) 17. Before shutdown, while at idle, the ignition key is momentarily turned OFF. The engine continues to run with no interruption; this
(A)is normal because the engine is usually stopped by moving the mixture to idle cut-off (B)should not normally happen. Indicates a magneto not grounding in OFF position (C)is an undesirable practice, but indicates that nothing is wrong

原始題號:0012249 題組:0 難易度:易

- (C) 18. The most probable reason an engine continues to run after the ignition switch has been turned off is
(A)carbon deposits glowing on the spark plugs (B)a magneto ground wire is in contact with the engine casing (C)a broken magneto ground wire

原始題號:0012250 題組:0 難易度:易

- (C) 19. If the ground wire between the magneto and the ignition switch becomes disconnected, the engine
(A)will not operate on one magneto (B)cannot be started with the switch in the BOTH position (C)could accidentally start if the propeller is moved with fuel in the cylinder

原始題號:0012251 題組:0 難易度:易

- (A) 20. A way to detect a broken magneto primary grounding lead is to
(A)idle the engine and momentarily turn the ignition off (B)add full power, while holding the brakes, and momentarily turn off the ignition (C)run on one magneto, lean the mixture, and look for a rise in manifold pressure

原始題號:0012252 題組:0 難易度:易

- (B) 21. For internal cooling, reciprocating aircraft engines are especially dependent on
(A)a properly functioning cowl flap augments (B)the circulation of lubricating oil (C)the proper freon/compressor output ratio

原始題號:0012253 題組:0 難易度:易

- (B) 22. An abnormally high engine oil temperature indication may be caused by
(A)a defective bearing (B)the oil level being too low (C)operating with an excessively rich mixture

原始題號:0012254 題組:0 難易度:易

- (A) 23. Frequent inspections should be made of aircraft exhaust manifold-type heating systems to minimize the possibility of
(A)exhaust gases leaking into the cockpit (B)a power loss due to back pressure in the exhaust system (C)a cold-running engine due to the heat withdrawn by the heater

原始題號:0012255 題組:0 難易度:易

- (B) 24. To develop maximum power and thrust, a constant-speed propeller should be set to a blade angle that will produce a
(A)large angle of attack and low RPM (B)small angle of attack and high RPM (C)large angle of attack and high RPM

原始題號:0012256 題組:0 難易度:易

- (A) 25. For takeoff, the blade angle of a controllable-pitch propeller should be set at a
(A)small angle of attack and high RPM (B)large angle of attack and low RPM (C)large angle of attack and high RPM

原始題號:0012257 題組:0 難易度:易

- (B) 26. A fixed-pitch propeller is designed for best efficiency only at a given combination of
(A)altitude and RPM (B)airspeed and RPM (C)airspeed and altitude

原始題號:0012258 題組:0 難易度:易

- (C) 27. The reason for variations in geometric pitch (twisting) along a propeller blade is that it
(A)permits a relatively constant angle of incidence along its length when in cruising flight (B)prevents the portion of the blade near the hub from stalling during cruising flight (C)permits a relatively constant angle of attack along its length when in cruising flight

原始題號:0012259 題組:0 難易度:易

- (C) 28. Which statement best describes the operating principle of a constant-speed propeller?
(A)As throttle setting is changed by the pilot, the prop governor causes pitch angle of the propeller blades to remain unchanged (B)A high blade angle, or increased pitch, reduces the propeller drag and allows more engine power for takeoffs (C)The propeller control regulates the engine RPM, and in turn, the propeller RPM

原始題號:0012260 題組:0 難易度:易

- (C) 29. To establish a climb after takeoff in an aircraft equipped with a constant-speed propeller, the output of the engine is reduced to climb power by decreasing manifold pressure and
(A)increasing RPM by decreasing propeller blade angle (B)decreasing RPM by decreasing propeller blade angle (C)decreasing RPM by increasing propeller blade angle

原始題號:0012261 題組:0 難易度:易

- (C) 30. A propeller rotating clockwise as seen from the rear, creates a spiraling slipstream. The spiraling slipstream, along with torque effect, tends to rotate the airplane to the
(A)right around the vertical axis, and to the left around the longitudinal axis
(B)left around the vertical axis, and to the right around the longitudinal axis
(C)left around the vertical axis, and to the left around the longitudinal axis

原始題號:0012262 題組:0 難易度:易

- (B) 31. In aircraft equipped with constant-speed propellers and normally-aspirated engines, which procedure should be used to avoid placing undue stress on the engine components? When power is being
(A)decreased, reduce the RPM before reducing the manifold pressure (B)increased increase the RPM before increasing the manifold pressure (C)increased or decreased, the RPM should be adjusted before the manifold pressure

原始題號:0012263 題組:0 難易度:易

- (B) 32. Why should flight speeds above VNE be avoided?
(A)Excessive induced drag will result in structural failure (B)Design limit load factors may be exceeded, if gusts are encountered (C)Control effectiveness is so impaired that the aircraft becomes uncontrollable

原始題號:0012264 題組:0 難易度:易

- (A) 33. The ratio between the total air load imposed on the wing load and gross weight of an aircraft in flight is known as
(A)load factor and directly affects stall speed (B)aspect load and directly affects stall speed (C)load factor and has no relation with stall speed

原始題號:0012265 題組:0 難易度:易

- (A) 34. Which is true regarding preheating an aircraft during cold weather operations?
(A)The cabin area as well as the engine should be preheated (B)The cabin area should not be preheated with portable heaters (C)Hot air should be blown directly at the engine through the air intakes

原始題號:0012266 題組:0 難易度:中

- (C) 35. During preflight in cold weather, crankcase breather lines should receive special attention because they are susceptible to being clogged by
(A)congealed oil from the crankcase (B)moisture from the outside air which has frozen (C)ice from crankcase vapors that have condensed and subsequently frozen

原始題號:0012267 題組:0 難易度:易

- (A) 36. If necessary to take off from a slushy runway, the freezing of landing gear mechanisms can be minimized by
(A)recycling the gear (B)delaying gear retraction (C)increasing the airspeed to VLE before retraction

原始題號:0012268 題組:0 難易度:易

- (C) 37. Which airspeed would a pilot be unable to identify by the color coding of an airspeed indicator?
(A)The never-exceed speed (B)The power-off stall speed (C)The maneuvering speed

原始題號:0012269 題組:0 難易度:易

- (A) 38. Calibrated airspeed is best described as indicated airspeed corrected for
(A)installation and instrument error (B)instrument error (C)non-standard temperature

原始題號:0012270 題組:0 難易度:易

- (C) 39. True airspeed is best described as calibrated airspeed corrected for
(A)installation or instrument error (B)non-standard temperature (C)altitude and non-standard temperature

原始題號:0012271 題組:0 難易度:中

- (B) 40. An aircraft 60 miles from a VOR station has a CDI indication of one-fifth deflection, this represents a course centerline deviation of approximately
(A)6 miles (B)2 miles (C)1 miles

原始題號:0012272 題組:0 難易度:中

- (A) 41. What is the maximum bearing error (+ or -) allowed for an operational VOR equipment check when using an FAA-approved ground test signal?
(A)4 degrees (B)6 degrees (C)8 degrees

原始題號:0012273 題組:0 難易度:中

- (C) 42. An ATC transponder is not to be used unless it has been tested, inspected, and found to comply with regulations within the preceding
(A)30 days (B)12 calendar months (C)24 calendar months

原始題號:0012274 題組:0 難易度:易

- (B) 43. Which is the correct symbol for the stalling speed or the minimum steady flight speed in a specified configuration?
(A)VS (B)VS1 (C)VS0

原始題號:0012275 題組:0 難易度:易

- (A) 44. Which is the correct symbol for the stalling speed or the minimum steady flight speed at which the airplane is controllable?
(A)VS (B)VS1 (C)VS0

原始題號:0012276 題組:0 難易度:易

- (A) 45. The performance tables of an aircraft for takeoff and climb are based on
(A)pressure/density altitude (B)cabin altitude (C>true altitude

原始題號:0012277 題組:0 難易度:易

- (B) 46. If an airplane is loaded to the rear of its CG range, it will tend to be unstable about its
(A)vertical axis (B)lateral axis (C)longitudinal axis

原始題號:0012278 題組:0 難易度:易

- (B) 47. One of the main functions of flaps during the approach and landing is to
(A)decrease the angle of descent without increasing the airspeed (B)provide the same amount of lift at a slower airspeed (C)decrease lift, thus enabling a steeper-than-normal approach to be made

原始題號:0012279 題組:0 難易度:易

- (B) 48. Longitudinal stability involves the motion of the airplane controlled by its
(A)rudder (B)elevator (C)ailerons

原始題號:0012280 題組:0 難易度:易

- (B) 49. Which statement is true about magnetic deviation of a compass? Deviation
(A)varies over time as the agonic line shifts (B)varies for different headings of the same aircraft (C)is the same for all aircraft in the same locality

原始題號:0012281 題組:0 難易度:易

- (B) 50. Maximum structural cruising speed is the maximum speed at which an airplane can be operated during
(A)abrupt maneuvers (B)normal operations (C)flight in smooth air

原始題號:0012282 題組:0 難易度:中

- (C) 51. What is an operational difference between the turn coordinator and the turn-and-slip indicator? The turn coordinator
(A)is always electric; the turn-and-slip indicator is always vacuum-driven
(B)indicates bank angle only; the turn-and-slip indicator indicates rate of turn and coordination
(C)indicates roll rate, rate of turn, and coordination; the turn-and-slip indicator indicates rate of turn and coordination

原始題號:0012283 題組:0 難易度:易

- (A) 52. What is an advantage of an electric turn coordinator if the airplane has a vacuum system for other gyroscopic instruments?
(A)It is a backup in case of vacuum system failure (B)It is more reliable than the vacuum-driven indicators (C)It will not tumble as will vacuum-driven turn indicators

原始題號:0012284 題組:0 難易度:中

- (C) 53. The maximum cumulative time that an emergency locator transmitter may be operated before the rechargeable battery must be recharged is
(A)30 minutes (B)45 minutes (C)60 minutes

原始題號:0012285 題組:0 難易度:中

- (C) 54. When must an operational check on the aircraft VOR equipment be accomplished to operate under IFR? Within the preceding
(A)30 days or 30 hours of flight time (B)10 days or 10 hours of flight time (C)30 days

原始題號:0012286 題組:0 難易度:中

- (B) 55. Which data must be recorded in the aircraft logbook or other record by a pilot making a VOR operational check for IFR operations?
(A)VOR name or identification, place of operational check, amount of bearing error, and date of check (B)Date of check, place of operational check, bearing error, and signature (C)VOR name or identification, amount of bearing error, date of check, and signature

原始題號:0012287 題組:0 難易度:中

- (C) 56. If an airplane category is listed as utility, it would mean that this airplane could be operated in which of the following maneuvers?
(A)Limited acrobatics, excluding spins (B)Any maneuver except acrobatics or spins (C)Limited acrobatics, including spins (if approved)

原始題號:0012288 題組:0 難易度:中

- (B) 57. Which is true concerning required maintenance inspections?
(A)A 100-hour inspection may be substituted for an annual inspection (B)An annual inspection may be substituted for a 100-hour inspection (C)An annual inspection is required even if a progressive inspection system has been approved

原始題號:0012289 題組:0 難易度:中

- (B) 58. After an annual inspection has been completed and the aircraft has been returned to service, an appropriate notation should be made
(A)on the airworthiness certificate (B)in the aircraft maintenance records (C)in the FAA-approved flight manual

原始題號:0012290 題組:0 難易度:中

- (A) 59. A standard airworthiness certificate remains in effect as long as the aircraft receives
(A)required maintenance and inspections (B)an annual inspection (C)an annual inspection and a 100-hour inspection prior to their expiration dates

原始題號:0012291 題組:0 難易度:中

- (C) 60. Aircraft maintenance records must include the current status of the
(A)applicable airworthiness certificate (B)life-limited parts of only the engine and airframe (C)life-limited parts of each airframe, engine, propeller, rotor, and appliance

原始題號:0012292 題組:0 難易度:中

- (B) 61. Which is correct concerning preventive maintenance, when accomplished by a pilot?
(A)A record of preventive maintenance is not required (B)A record of preventive maintenance must be entered in the maintenance records (C)Records of preventive maintenance must be entered in the FAA-approved flight

原始題號:0012293 題組:0 難易度:中

- (A) 62. The propeller governor controls
(A) oil to and from the pitch changing mechanism. (B) spring tension of the boost pump speeder spring. (C) movement in and out of the linkage and counterweights.

原始題號:0012294 題組:0 難易度:中

- (A) 63. Which operational force creates the greatest stress on a propeller?
(A)Centrifugal. (B)Torque bending. (C)Aerodynamic twisting.

原始題號:0012295 題組:0 難易度:中

- (B) 64. The force which tries to increase propeller blade angle is
(A)torque bending. (B)aerodynamic twisting. (C) centrifugal twisting moment.

原始題號:0012296 題組:0 難易度:中

- (B) 65. The force which tries to feather the propeller blade is
(A)torque bending. (B)aerodynamic twisting. (C) centrifugal twisting moment.

原始題號:0012297 題組:0 難易度:易

- (C) 66. Which flight conditions will result in the largest propeller blade angle?
(A)Initial climb-out. (B)Approach to landing. (C)High-speed, high-altitude cruise flight.

原始題號:0012298 題組:0 難易度:中

- (B) 67. Increasing the throttle setting in cruise flight will result in
(A)a decrease in blade angle. (B) an increase in blade angle. (C) an increase in propeller RPM.

原始題號:0012299 題組:0 難易度:中

- (C) 68. The purpose of the propeller synchrophase system is to set
(A) all propellers at exactly the same RPM. (B) the propeller blade angles for all propellers in the same relative position. (C) the angular difference in the plane of rotation between the blades of the slave engines and the blades of the master.

原始題號:0012300 題組:0 難易度:易

- (C) 69. What is the sequence of events for a reciprocating engine to convert chemical to mechanical energy?
(A) Ignition, compression, power, and exhaust. (B) Compression, ignition, intake power, and exhaust. (C) Intake, compression, ignition, power, and exhaust.

原始題號:0012301 題組:0 難易度:中

- (C) 70. The total piston displacement of a reciprocating engine is the
(A) relationship of horsepower output per cubic inch of cylinder volume. (B) volume displaced by one piston during one revolution of the crankshaft. (C) volume displaced by the sum total of all pistons during one revolution of the crankshaft.

原始題號:0012302 題組:0 難易度:中

- (C) 71. Which of the following situations will most likely cause the engine to backfire through the induction system when operated at low RPM?
(A) A clogged air inlet. (B) The idle speed set too low. (C) An excessively lean mixture setting.

原始題號:0012303 題組:0 難易度:中

- (C) 72. The purpose of the oil cooler bypass valve is to
(A) bypass the oil cooler when there is a blockage. (B) control and limit the lubricating oil pressure. (C) control the flow of oil to the oil cooler according to the temperature and viscosity of the oil.

原始題號:0012304 題組:0 難易度:易

- (C) 73. Preignition is indicated by
(A) intermittent firing and low cylinder temperatures. (B) explosions from the exhaust system with torching or afterburning. (C) engine roughness and a sudden increase in cylinder head temperatures.

原始題號:0012305 題組:0 難易度:中

- (A) 74. The first step to correct preignition is to
(A) retard the throttle. (B) increase the mixture. (C) decrease the mixture.

原始題號:0012306 題組:0 難易度:中

- (A) 75. If an attempt is made to start an engine with a hydraulic lock,
(A) a connecting rod can bend or break if the crankshaft continues to rotate.
(B) the starter gearbox can overtorque since the liquid is incompressible and stops piston movement. (C) the fuel or oil from the lower cylinders can be injected into the exhaust system causing afterfiring.

原始題號:0012307 題組:0 難易度:中

- (C) 76. Alcohol is added to the fluid in a water injection system to
(A) increase the octane. (B) provide greater cooling. (C) prevent freezing of the water.

原始題號:0012308 題組:0 難易度:中

- (C) 77. What may cause engine detonation?
(A) High octane fuel. (B) Low manifold pressure. (C) High intake air temperatures.

原始題號:0012309 題組:0 難易度:中

- (B) 78. One purpose of a fuel tank boost pump is to
(A) provide pressure for injection carburetors. (B) prevent vapor lock caused by high temperature. (C) prevent vapor lock caused by high atmospheric pressure.

原始題號:0012310 題組:0 難易度:中

- (A) 79. The purpose of water injection is to
(A) suppress detonation. (B) increase fuel economy. (C) prevent carburetor ice.

原始題號:0012311 題組:0 難易度:易

- (B) 80. What is a feature of an electromagnetic-type circuit breaker?
(A) It resets automatically. (B) It may be reset immediately. (C) It is necessary to wait a short time before attempting a reset.

原始題號:0012312 題組:0 難易度:中

- (B) 81. Which is an indication of carburetor ice?
(A) Decrease in propeller RPM. (B) Manifold pressure (MAP) drop. (C) Backfiring, which is caused by a rich mixture.

原始題號:0012313 題組:0 難易度:中

- (B) 82. What type of icing is most likely to occur with a pressure-injected carburetor?
(A) Fuel. (B) Induction. (C) Evaporative.

原始題號:0012314 題組:0 難易度:易

- (A) 83. In an electrically heated windshield system, what maintains normal windshield temperature?
(A) Thermistors. (B) Electronic amplifiers. (C) Thermal overheat switches.

原始題號:0012315 題組:0 難易度:中

- (C) 84. How does a photoelectric smoke detector operate?
(A)A photoelectric smoke detector only warns when smoke is present. (B)A photoelectric smoke detector measures the amount of smoke under a specific set of conditions. (C) A photoelectric smoke detector measures the amount of light available under a specific set of conditions.

原始題號:0012316 題組:0 難易度:易

- (B) 85. How does the thermocouple in a fire detection system cause the warning system to operate?
(A) Heat increases electrical resistance. (B)Heat generates a small electrical current. (C)Heat causes expansion and a ground to form.

原始題號:0012317 題組:0 難易度:中

- (C) 86. What is the effect on the fuel/air mixture when flying from a cold to a warm area at a constant altitude without automatic mixture control?
(A) The engine is not capable of producing as much power due to the increase in air density. (B)The engine is capable of producing more power due to a greater volume of air which is available due to heat expansion. (C)The engine is not capable of producing as much power due to a decrease in air density which causes a richer mixture.

原始題號:0012318 題組:0 難易度:中

- (A) 87. How is engine power output affected by the application of carburetor heat?
(A)Volumetric efficiency is reduced. (B)Mixture is leaned and power is decreased (C)Weight of the fuel/air mixture is increased.

原始題號:0012319 題組:0 難易度:易

- (B) 88. The CG of an airplane is normally located in the fuselage at a point expressed in
(A)inches from the forward CG limit. (B)B- percent of mean aerodynamic chord aft of LEMAC. (C)C- percentage of MAC aft of the leading edge of the wing.

原始題號:0012320 題組:0 難易度:易

- (C) 89. The CG of an airplane is computed along the
(A) lateral axis. (B)vertical axis. (C)longitudinal axis.

原始題號:0012321 題組:0 難易度:易

- (A) 90. Zero fuel weight is defined as the
(A) basic operating weight plus payload. (B)empty weight plus passengers and cargo. (C) takeoff weight minus fuel to destination and alternate.

原始題號:0012322 題組:0 難易度:中

- (A) 91. The purpose of shutting an engine down with the mixture control at the end of the flight is to
(A)prevent an accidental start. (B) preclude liquid lock during subsequent starts. (C)assure that there is no fuel in the intake system that could result in a fire.

原始題號:0012323 題組:0 難易度:易

- (B) 92. What is the oil viscosity index? The oil viscosity index
(A)A- indicates how fluid an oil is at low temperature under laboratory conditions. (B)B- is an arbitrary method of stating the rate of change in viscosity of an oil with changes of temperature. (C)C- is the weight of any oil compared with the weight of an equal volume of oil from the American Petroleum Institute (API) gravity scale.

原始題號:0012324 題組:0 難易度:易

- (C) 93. What safety device is actuated by the compression and extension of a landing gear strut?
(A) Uplock switch. (B)Downlock switch. (C)Ground safety switch.

原始題號:0012325 題組:0 難易度:中

- (B) 94. What type of oxygen system is used for passengers?
(A) Demand. (B)Constant-flow. (C) Diluter-demand.

原始題號:0012326 題組:0 難易度:中

- (C) 95. Which type of oxygen system is the flight deck equipped with normally?
(A) Constant-flow. (B)Phase dilution. (C)Diluter-demand.

原始題號:0012327 題組:0 難易度:中

- (B) 96. One of the main gear tires has deflated as a result of a thermal fuse melt. What does this mean?
(A) Heavy braking has overheated the wheel, melted a plastic fuse in the rim, and prevented the danger of a tire blowout. (B) High tire temperatures have melted a fusible metal plug installed in the aircraft wheel and caused the tire to deflate. (C)High temperatures in the wheel well have caused the tire's temperature sensitive valve core to melt, deflated the tire, and prevented damage to the wing.

原始題號:0012328 題組:0 難易度:易

- (A) 97. The purpose of fusible plugs in aircraft wheels is to
(A)prevent tire blowouts. (B) quickly deflate tires for repair. (C)protect the antiskid electrical system.

原始題號:0012329 題組:0 難易度:易

- (B) 98. When may rain repellent be applied to a windshield?
(A) Prior to entering rain. (B) After it starts raining. (C)Whenever the windshield is dirty.

原始題號:0012330 題組:0 難易度:中

- (C) 99. Which is a reason for heating cockpit windows?
(A) Deicing. (B) Prevent thermal shock. (C) Bird-impact protection.

原始題號:0012331 題組:0 難易度:中

- (B) 100. The purpose of the antiskid system control box is to
(A) sense wheel speed change. (B) prevent landing with the brakes applied.
(C) meter the brake pressure to prevent stoppage of wheel rotation.

原始題號:0012332 題組:0 難易度:中

- (A) 101. Pressure from an engine-driven hydraulic pump may be regulated by a
(A) system bypass valve. (B) constant speed drive. (C) in-line variable restrictor orifice.

原始題號:0012333 題組:0 難易度:易

- (A) 102. Moisture in a pneumatic system may cause
(A) corrosion. (B) a variety of sounds including banging, squealing and chattering. (C) return lines to freeze when the pressure of the air drops during actuation.

原始題號:0012334 題組:0 難易度:易

- (A) 103. What type of gas is normally used to service the air-storage bottles of an emergency pneumatic system?
(A) Nitrogen. (B) Dry oxygen. (C) Carbon dioxide.

原始題號:0012335 題組:0 難易度:中

- (B) 104. One purpose of a hydraulic accumulator is to
(A) compress hydraulic fluid. (B) absorb sudden pressure surges. (C) store hydraulic fluid from small system leaks.

原始題號:0012336 題組:0 難易度:中

- (C) 105. Which statement is correct when applying liquid rain repellent?
(A) Begin application as soon as rain begins, to form a barrier between the rain and the windshield. (B) Apply rain repellent first, then activate the windshield wipers to spread the repellent. (C) The number of times the repellent is applied is determined by the intensity of the rain.

原始題號:0012337 題組:0 難易度:中

- (C) 106. Why should synthetic hydraulic fluid be stored in an airtight container?
(A) High evaporation rate. (B) Vapor is extremely toxic. (C) Atmospheric moisture contamination.

原始題號:0012338 題組:0 難易度:易

- (C) 107. When the cabin pressure regulator is operating in the differential mode, reference pressure is vented to the atmosphere by the
(A) relief valve. (B) isobaric metering valve. (C) differential metering valve.

原始題號:0012339 題組:0 難易度:中

- (B) 108. In a pressurized system, what is the purpose of the dump valve?
(A) Relieve a negative pressure differential. (B) Relieve all positive pressure from the cabin. (C) Relieve any pressure in excess of maximum cabin differential.

原始題號:0012340 題組:0 難易度:中

- (B) 109. The cabin pressure control setting has a direct effect upon the
(A) compressor speed. (B) outflow valve opening. (C) pneumatic system pressure.

原始題號:0012341 題組:0 難易度:易

- (B) 110. Which component of an airplane pressurization system prevents the cabin altitude from becoming higher than the airplane altitude?
(A) Cabin rate of descent control. (B) Negative pressure relief valve. (C) Compression ratio limit switch.

原始題號:0012342 題組:0 難易度:易

- (B) 111. If the cabin rate of climb is too great, how should the pressurization controls be adjusted?
(A) Open the outflow valve slower. (B) Close the outflow valve faster. (C) Increase the amount of incoming air.

原始題號:0012343 題組:0 難易度:中

- (B) 112. How is cabin pressurization controlled?
(A) The pressure valve regulates the air output of the compressor. (B) The outflow valve dumps all air pressure in excess of the amount for which it is set. (C) The inflow valve limits the amount of air to the cabin when a pressure equivalent to cabin altitude has been reached.

原始題號:0012344 題組:0 難易度:易

- (A) 113. Which best describes cabin differential pressure?
(A) The difference between ambient and internal air pressure. (B) The difference between the cabin flight altitude pressure and MSL pressure. (C) The difference between the cabin pressure controller setting and the actual cabin pressure.

原始題號:0012345 題組:0 難易度:易

- (C) 114. Which component gives an indication of the rate of change in cabin altitude and what unit of measurement is used?
(A) Pressure controller, PSI. (B) Cabin vertical-velocity indicator, PSI. (C) Cabin vertical-velocity indicator, feet per minute.

原始題號:0012346 題組:0 難易度:易

- (B) 115. Which section of a turbine engine provides air for the pressurization and air-conditioning systems?
(A) Intake. (B) Compressor. (C) Combustion.

原始題號:0012347 題組:0 難易度:中

- (A) 116. Which component of an air-cycle cooling system undergoes a pressure and temperature drop of air during operation?
(A)Expansion turbine. (B) Primary heat exchanger. (C)Refrigeration bypass valve.

原始題號:0012348 題組:0 難易度:中

- (C) 117. Which components make up the basic air-cycle cooling system?
(A)Heaters, coolers, and compressor. (B)Ram air source, compressors, and engine bleeds. (C)A source of compressed air, heat exchangers, and a turbine.

原始題號:0012349 題組:0 難易度:易

- (B) 118. The air-cycle cooling system produces cold air by
(A) passing heated air through a compressor. (B)passing air through an expansion turbine and extracting heat energy. (C)passing air through cooling coils that contain a volume of refrigerant.

原始題號:0012350 題組:0 難易度:中

- (B) 119. Which cabin air-conditioning system utilizes a refrigerant to carry away cabin heat?
(A)Air cycle (B)Vapor cycle. (C) Evaporative blower.

原始題號:0012351 題組:0 難易度:中

- (A) 120. Which control systems for operating cabin pressurization use reference chamber air pressure within the controller to regulate the outflow valve?
(A) Isobaric and differential. (B)Unpressurized and pressurized controls. (C)Ambient, differential, and maximum differential.

原始題號:0012352 題組:0 難易度:中

- (B) 121. What type of electrolyte is contained in a lead-acid battery?
(A)Boric acid. (B)Sulfuric acid. (C)Potassium hydroxide.

原始題號:0012353 題組:0 難易度:中

- (B) 122. What are the characteristics of the electrolyte in a nickel-cadmium battery?
(A)Noncorrosive. (B)Much like household lye and will cause severe burns. (C)Harmless compared to the electrolyte in a lead-acid battery.

原始題號:0012354 題組:0 難易度:中

- (C) 123. What will neutralize the electrolyte from a nickel-cadmium battery?
(A)Soap and water. (B)Bicarbonate of soda. (C)A solution of boric acid, vinegar, lemon juice, or some other mildly acid solution.

原始題號:0012355 題組:0 難易度:中

- (C) 124. What is the purpose of a fuse-type current limiter?
(A) Prevent overloads in low power circuits. (B)Fast blow design prevents damage to sensitive circuits or equipment. (C)Permit short periods of overload before the fuse link melts and breaks the circuit.

原始題號:0012356 題組:0 難易度:中

- (C) 125. What is a purpose of enclosing wires or electrical units in metal?
(A) Eliminates ground wires. (B) Prevents the buildup of static discharges.
(C) Eliminates interference with radio reception.

原始題號:0012357 題組:0 難易度:中

- (C) 126. What is residual voltage?
(A) Voltage produced that is not in phase with the current. (B) Voltage stored in the generator exciter output windings. (C) Voltage produced by permanent magnets which starts the ac generator output.

原始題號:0012358 題組:0 難易度:中

- (B) 127. What is the difference between a relay and a solenoid?
(A) Relays have movable cores. (B) Solenoids have movable cores. (C) Relays are used as mechanical control devices.

原始題號:0012359 題組:0 難易度:易

- (A) 128. What is the purpose of an electrical relay?
(A) Controls remote, high current equipment items with a small switch. (B) Prevents static buildup by connecting shock mounted equipment to ground.
(C) Engages starter gears, moves locking pins or other mechanical control devices.

原始題號:0012360 題組:0 難易度:中

- (C) 129. What is an advantage of using 115 volts, 400-Hz alternating current?
(A) The AC voltage may be changed easily by the use of rectifiers which reduces wire size and weight. (B) Inductive reactance at high frequency increases current and more efficient power transmission. (C) High-voltage AC motors are smaller and lighter than equivalent DC-powered motors.

原始題號:0012361 題組:0 難易度:中

- (B) 130. Why is it important that all electrical loads and power sources be turned off before connecting or disconnecting the battery?
(A) To prevent discharging the battery. (B) To prevent a spark from igniting explosive gas. (C) To prevent power surges from spiking sensitive equipment.

原始題號:0012362 題組:0 難易度:易

- (B) 131. What is the name for the visible discharge of static electricity from the airplane into the air?
(A) Corona threshold. (B) Saint Elmo's fire. (C) Precipitation static.

原始題號:0012363 題組:0 難易度:易

- (C) 132. If the airplane is equipped with a battery rated to deliver 45 amperes for 2.5 hours, what is the ampere-hour rating?
(A) 90.0 ampere-hour. (B) 18.0 ampere-hour. (C) 112.5 ampere-hour.

原始題號:0012364 題組:0 難易度:易

(C) 133. Aircraft fuse capacities are rated in
(A)volts. (B)watts. (C)amperes.

原始題號:0012365 題組:0 難易度:易

(A) 134. In aircraft electrical systems, automatic reset circuit breakers
(A)are not used as circuit protective devices. (B)are used in all circuits essential to safe operation of the aircraft. (C) are found in locations where only temporary overloads are encountered.

原始題號:0012366 題組:0 難易度:易

(A) 135. What is an electrical relay?
(A)A magnetically operated switch. (B)A device used to increase, or step-up voltage. (C)A conductor which receives electrical energy and passes it on with little or no resistance.

原始題號:0012367 題組:0 難易度:易

(B) 136. How are electrical generators rated?
(A)Watts at rated voltage. (B)Amperes at rated voltage. (C) Voltage at rated amperes.

原始題號:0012368 題組:0 難易度:易

(B) 137. What unit of power is used in dc electrical circuits?
(A)Volts. (B) Watts. (C)Amperes.

原始題號:0012369 題組:0 難易度:中

(B) 138. What is the function of the circuit breaker in the instrument lighting system?
(A)Protects the lights from too much current. (B)Protects the wiring from too much current. (C)Prevents excessive voltage from reaching the wiring.

原始題號:0012370 題組:0 難易度:中

(A) 139. Which are protective functions of an ac generator control unit?
(A)Open phase, underexcitation, and overvoltage. (B)Undervoltage, differential fault, and manual paralleling. (C)Generator underspeed and bus-tie circuit-breaker automatic closing.

原始題號:0012371 題組:0 難易度:中

(B) 140. Which is a feature of a parallel bus electrical system?
(A) External power may be paralleled with operating generators. (B) The electrical load is automatically redistributed when one generator fails. (C) Each generator supplies power separately from the other generators to its respective bus.

原始題號:0012372 題組:0 難易度:易

(A) 141. Which is a purpose of a transformer rectifier?
(A) Converts 115 volts ac, 400-Hz to 28 volts dc. (B)Changes dc to alternating 26 volts or 115 volts, 400-Hz power. (C)Operates emergency flight instruments and radios from the airplane battery.

原始題號:0012373 題組:0 難易度:易

- (C) 142. What is the approximate nominal voltage rating of a fully charged nickel-cadmium battery containing twenty cells?
(A) 12 volts. (B) 20 volts. (C) 25 volts.

原始題號:0012374 題組:0 難易度:中

- (B) 143. Why is it necessary to periodically completely discharge and recharge a nickel-cadmium battery?
(A) To restore electrolyte levels. (B) To eliminate cell imbalance and loss of capacity. (C) To dissolve nickel oxide formations on positive cells to restore capacity.

原始題號:0012375 題組:0 難易度:中

- (C) 144. What causes cell imbalance in a nickel-cadmium battery?
(A) Low temperatures. (B) Deep rapid discharges. (C) Constant-potential (voltage) charging.

原始題號:0012376 題組:0 難易度:中

- (C) 145. The purpose of a constant speed drive for an ac generator is to
(A) control field strength. (B) regulate generator voltage. (C) maintain a uniform frequency.

原始題號:0012377 題組:0 難易度:易

- (B) 146. What speed does a frequency meter give a direct indication of?
(A) Engine N(2). (B) Generator RPM. (C) CSD input speed.

原始題號:0012378 題組:0 難易度:易

- (C) 147. How are airplane ac generators rated?
(A) Volts. (B) Kilowatts (KW). (C) Kilovolt-amps (KVA).

原始題號:0012379 題組:0 難易度:中

- (B) 148. What is a purpose of a rotary inverter?
(A) Change 115 volts ac to 28 volts dc. (B) Convert dc to 115 volts, 400-Hz power.
(C) Transform 26/29 volts dc to 115/200 volts dc.

原始題號:0012380 題組:0 難易度:易

- (C) 149. The purpose of a reverse-current relay is to
(A) prevent one generator from driving another generator. (B) increase or decrease the voltage of a generator so it carries its share. (C) disconnect the generator from the main bus when generator voltage drops below battery voltage.

原始題號:0012381 題組:0 難易度:易

- (B) 150. What is the nominal voltage rating of a fully charged lead-acid battery containing six cells?
(A) 6 volts. (B) 12 volts. (C) 24 volts.

原始題號:0012382 題組:0 難易度:易

- (A) 151. The purpose of fusible plugs in the wheel is to prevent
(A)tire blowout. (B)overservicing the tire. (C)damage to the tire resulting from heat expansion.

原始題號:0012383 題組:0 難易度:易

- (B) 152. What tread wear will occur if tires are under-inflated?
(A)Uniform wear at a fast rate. (B)Tread worn away more on the shoulders than in the center. (C)Accelerated centerline wear while leaving rubber on the shoulder.

原始題號:0012384 題組:0 難易度:易

- (C) 153. What tread wear will occur if tires are over-inflated?
(A)Uniform wear at a slow rate. (B)Tread worn away more on the shoulders than in the center. (C)Accelerated centerline wear while leaving rubber on the shoulder.

原始題號:0012385 題組:0 難易度:中

- (C) 154. Where should the chines be located for a dual nosewheel installation?
(A)One on each side of the tires. (B)On the inside of the tires only. (C)On the outside of the tires only.

原始題號:0012386 題組:0 難易度:中

- (C) 155. The purpose of chines on tires is to
(A) increase traction on snow or ice covered runways. (B)reduce the tendency to hydroplane on wet runways. (C) deflect water or slush away from the engine intakes.

原始題號:0012387 題組:0 難易度:易

- (C) 156. Which of the following are considered primary flight controls?
(A)Tabs. (B)Flaps. (C)Outboard ailerons.

原始題號:0012388 題組:0 難易度:易

- (B) 157. Which of the following is considered a secondary flight control?
(A)Rudder. (B)Servo tab. (C)Inboard aileron.

原始題號:0012389 題組:0 難易度:易

- (C) 158. Which direction from the primary control surface does an elevator adjustable trim tab move when the control surface is moved?
(A)Same direction. (B) Opposite direction. (C)Remains fixed for all positions.

原始題號:0012390 題組:0 難易度:易

- (A) 159. What direction should the ailerons move when the control wheel is moved?
(A)Left aileron down when the control wheel is moved right. (B) Right aileron up when the control wheel is moved left. (C)Left aileron down when the control wheel is moved left.

原始題號:0012391 題組:0 難易度:易

- (A) 160. A purpose of leading edge flaps is to
(A) increase the camber of the wing. (B) reduce lift without increasing airspeed.
(C) direct airflow over the top of the wing at high angles of attack.

原始題號:0012392 題組:0 難易度:易

- (B) 161. A purpose of flight spoilers is to
(A) increase the camber of the wing. (B) reduce lift without increasing airspeed.
(C) direct airflow over the top of the wing at high angles of attack.

原始題號:0012393 題組:0 難易度:易

- (A) 162. A purpose of ground spoilers is to
(A) reduce the wing's lift upon landing. (B) aid in rolling an airplane into a turn. (C) increase the rate of descent without gaining airspeed.

原始題號:0012394 題組:0 難易度:中

- (A) 163. A purpose of wing mounted vortex generators is to
(A) prevent shock induced separation of air from the wing. (B) increase the onset of drag divergence and aid in aileron effectiveness at high speed. (C) break the airflow over the wing so the stall will progress from the root out to the tip of the wing.

原始題號:0012395 題組:0 難易度:中

- (A) 164. What is a disadvantage of wing mounted vortex generators?
(A) Drag is increased slightly at slow airspeeds. (B) Parasite drag increases significantly at high airspeeds. (C) Shock induced flow separation from vortex generators increases control surface buffet.

原始題號:0012396 題組:0 難易度:中

- (A) 165. What is a disadvantage of a stabilizer and elevator located at the top of the vertical fin?
(A) Heavier structure. (B) Undesirable spin characteristics. (C) Less effective fin and rudder due to the end plate action of the stabilizer location.

原始題號:0012397 題組:0 難易度:易

- (C) 166. An advantage of a stabilizer and elevator located at the top of the vertical fin is that
(A) the structural weight is decreased. (B) the cruise speed is more fuel efficient. (C) the horizontal tail is above the wing turbulence.

原始題號:0012398 題組:0 難易度:易

- (B) 167. What action should be taken if a hydraulic stationary connection has a static leak?
(A) Reduce the accumulator pressure. (B) Notify maintenance to repair it.
(C) Pressurize the system and perform an operational check.

原始題號:0012399 題組:0 難易度:中

- (B) 168. An advantage of Skydrol is that it
(A)is resistant to water contamination. (B) has a wide operating temperature range. (C) is compatible with vegetable-base hydraulic fluid.

原始題號:0012400 題組:0 難易度:中

- (C) 169. A disadvantage of Skydrol is that
(A) it is incompatible with synthetic-base fluid. (B)sustained operations below -40°C should be avoided. (C) it will break down the insulation on some electrical wiring.

原始題號:0012401 題組:0 難易度:中

- (A) 170. The purpose of a bypass valve in the hydraulic filter is to
(A) bypass a clogged element. (B)maintain the desired temperature and viscosity by controlling the amount of fluid through the unit. (C) ensure adequate flow when the engines are started until the fluid is warmed sufficiently to flow freely.

原始題號:0012402 題組:0 難易度:易

- (C) 171. What action should be taken in case of eye contact with any hydraulic fluid?
(A)Apply an aesthetic eye dressing. (B)Flush thoroughly with soap and water. (C)Flush with water and consult a doctor.

原始題號:0012403 題組:0 難易度:易

- (B) 172. What should be used to remove Skydrol from your skin?
(A)Solvent. (B)Soap and water. (C)Trichlorethylene.

原始題號:0012404 題組:0 難易度:中

- (A) 173. The purpose of a hydraulic accumulator is to
(A)store hydraulic fluid under pressure. (B)collect hydraulic fluid from system leaks. (C) gather foam and extract the air before returning it to the reservoir.

原始題號:0012405 題組:0 難易度:易

- (A) 174. What type of gas may be used to service hydraulic accumulators?
(A)Nitrogen. (B)Dry oxygen. (C)Carbon dioxide.

原始題號:0012406 題組:0 難易度:易

- (C) 175. Which principle operates a hydraulic fuse?
(A)Heat. (B) Electrical. (C)Differential pressure.

原始題號:0012407 題組:0 難易度:易

- (B) 176. The purpose of pressurizing a hydraulic reservoir is to
(A)provide an alternate source of pressure in case of a hydraulic pump failure. (B)assure a positive feed of foam free fluid to the hydraulic pump at high altitudes. (C) insure an adequate supply of fluid to the hydraulic pump inlet during negative-G flight.

原始題號:0012408 題組:0 難易度:易

(C) 177. Why should hydraulic fluid be filtered?

(A) Water in the fluid could freeze. (B) It assures a positive feed of foam free fluid to the hydraulic pump inlet. (C) Contaminants may damage the seals and cylinder walls causing internal leakage.

原始題號:0012409 題組:0 難易度:中

(A) 178. An advantage of a piston-type accumulator is that it

(A) takes up less area than a sphere-type accumulator. (B) may be used with higher pressure than a bladder-type accumulator. (C) can store more hydraulic fluid than a diaphragm-type accumulator.

原始題號:0012410 題組:0 難易度:中

(C) 179. What is the difference between a hydraulic sequence valve and a priority valve?

(A) Sequence valves are electrically actuated. (B) Mechanical contact opens a priority valve. (C) Priority valves are opened by hydraulic pressure.

原始題號:0012411 題組:0 難易度:中

(A) 180. Which principle operates a hydraulic fuse?

(A) Quantity of flow. (B) Thermal increase. (C) Pressure increase.

原始題號:0012412 題組:0 難易度:中

(B) 181. How may pressure from an engine-driven hydraulic pump be regulated?

(A) Constant speed drive. (B) Variable-displacement pump. (C) In-line variable restrictor orifice.

原始題號:0012413 題組:0 難易度:中

(B) 182. Which hydraulic operation normally uses a double-acting, unbalanced linear actuator?

(A) Brakes. (B) Landing gear. (C) Automatic pilot servo.

原始題號:0012414 題組:0 難易度:中

(C) 183. Which hydraulic operation normally uses a double-acting, balanced linear actuator?

(A) Brakes. (B) Landing gear. (C) Automatic pilot servo.

原始題號:0012415 題組:0 難易度:中

(A) 184. If the line between the manifold pressure gauge and the engine induction system is broken, the gauge will indicate

(A) ambient pressure. (B) standard atmospheric pressure. (C) high when operating at a manifold pressure above atmospheric pressure.

原始題號:0012416 題組:0 難易度:中

(C) 185. Which is a feature of the propeller feathering system?

(A) Throttle levers may be in any position for the autofeather system to operate. (B) Retarding a throttle to idle on takeoff will cause the autofeather system to operate. (C) Propeller blades are held in the full feather position by aerodynamic forces.

原始題號:0012417 題組:0 難易度:中

- (C) 186. What initial action is taken to unfeather a Hamilton-Standard Hydromatic propeller?
(A) Place the aircraft in a shallow dive to start the propeller windmilling.
(B) Turn the autofeather system off and place the propeller lever to the full forward position. (C) Hold the feather button in until the propeller starts windmilling, then release for restart.

原始題號:0012418 題組:0 難易度:易

- (C) 187. Increasing the throttle setting while taxiing with a reciprocating engine will result in
(A) a decrease in blade angle. (B) an increase in blade angle. (C) an increase in propeller RPM.

原始題號:0012419 題組:0 難易度:易

- (A) 188. The force which tries to bend the propeller blades opposite the direction of rotation is
(A) torque bending. (B) aerodynamic bending. (C) centrifugal bending.

原始題號:0012420 題組:0 難易度:中

- (B) 189. What is indicated during engine shutdown when the tachometer does not increase?
(A) Idle mixture is correct. (B) Idle mixture is too lean. (C) Idle mixture is too rich.

原始題號:0012421 題組:0 難易度:中

- (C) 190. What does an increase of approximately 125 propeller RPM indicate during shutdown?
(A) Idle mixture is correct. (B) Idle mixture is too lean. (C) Idle mixture is too rich.

原始題號:0012422 題組:0 難易度:中 (R20180611)

- (B) 191. The primary purpose for utilizing boost pumps in the fuel system is to
(A) prevent unporting of fuel on takeoff. (B) provide a positive fuel flow to the engine pump. (C) provide fuel transfer between tanks to prevent fuel imbalance.