

(A54) CPL直昇機一般維護

最近更新日期：無；更新題號：無

原始題號:0014717 題組:0 難易度:中

- (A) 1. 往復式測知磁電機初級搭地導線是否斷損之方法為
(A)發動機慢車時將點火開關瞬間置於off (B)加速至全油門，踏緊剎車並瞬間將點火開關置於off (C)單磁電機試車將混合比移向貧油檢視歧管壓力是否上升

原始題號:0014718 題組:0 難易度:中

- (C) 2. 活塞式點火開關置於off位置後發動機繼續運轉，其主要原因為
(A)點火塞電嘴積碳續燃 (B)磁電機搭地線觸及發動機外殼 (C)磁電機搭地線斷損

原始題號:0014719 題組:0 難易度:易

- (C) 3. 活塞式發動機飛行員使用那一裝置操控油汽混合比
(A)油門 (B)歧管壓力 (C)混合比操縱柄

原始題號:0014720 題組:0 難易度:易

- (A) 4. 往復式發動機爆震產生之原因為何？
(A)混合比富油 (B)發動機溫度低 (C)使用較規範略低之燃油

原始題號:0014721 題組:0 難易度:易

- (B) 5. 發動機滑油溫度指示過高可能由下列那種原因造成？
(A)軸承失效 (B)滑油油量不足 (C)混合比過度富油

原始題號:0014722 題組:0 難易度:中

- (B) 6. 主旋翼葉片上翹角係由下列何種因素所形成？
(A)阻力、重力及並進升力 (B)升力及離心力 (C)蹣動及離心力

原始題號:0014723 題組:0 難易度:中

- (B) 7. 旋翼機向前飛行速度主要受限於右列何種因素？
(A)升力不對稱 (B)橫向氣流影響 (C)高頻率震動

原始題號:0014724 題組:0 難易度:中

- (B) 8. 滯空時，直升機有向尾旋翼推力方向移動之趨勢，
(A)是；此一移動稱之為橫向趨勢 (B)是；此一移動稱之為並進趨勢 (C)否；移動方向與尾旋翼推力方向相反，稱之為並進趨勢

原始題號:0014725 題組:0 難易度:中

- (C) 9. 前進葉片及後退葉片間之升力差，係由下列那一因素所形成？
(A)高力奧利斯效應 (B)共進升力 (C)升力不對稱

原始題號:0014726 題組:0 難易度:中

- (C) 10. 在設計上大多數直升機在無風狀況下滯空時，均有向右飄移之趨勢，何一敘述正確？
(A)錯；直升機無飄移趨勢，但會向右方旋轉 (B)對；大多數直升機之主承桿及迴旋螺矩均係向前校配藉由陀螺運動可克服此一趨勢 (C)對；大多數直升機之主承桿及迴旋螺矩均係向左較配以克服此一趨勢

原始題號:0014727 題組:0 難易度:易

- (B) 11. 直升機從直向飛行進入30°傾側飛行，在高度不變狀況下，其總升力必須
(A)增加，裝載因素亦隨之增加。(B)增加，裝載因素會隨之減少。(C)維持不變，裝載因素隨之減少。

原始題號:0014728 題組:0 難易度:易

- (B) 12. 全關節式旋翼系之主旋翼葉片，可以
(A)集體蹣動及翼動 (B)可以個別蹣動，阻滯及翼動 (C)單獨翼動，但不能蹣動及翼動

原始題號:0014729 題組:0 難易度:易

- (A) 13. 往復式發動機離合器之主要功用為何?
(A)容許發動機在未驅動旋翼系狀況下開車 (B)提供發動機與旋翼系解脫功能，俾執行自動旋轉 (C)傳遞發動機馬力至主尾旋翼發動機及其他附件。

原始題號:0014730 題組:0 難易度:易

- (C) 14. 渦輪發動機超速齒輪組之主要功能為何?
(A)容許發動機在未驅動主旋狀況下開車 (B)提供發動機、主旋翼系及尾旋翼系間之減速 (C)提供發動機與旋翼系間解脫功能達成自動旋轉

原始題號:0014731 題組:0 難易度:易

- (A) 15. 半硬式主旋翼系可以?
(A)蹣動及翼動一致 (B)個別蹣動，阻滯及翼動 (C)個別蹣動，但無法翼動及阻滯

原始題號:0014732 題組:0 難易度:中

- (A) 16. 在三葉片全關節式旋翼系直升機上，安裝阻力鉸鏈之目的在補償下列何種因素?
(A)高力奧利斯效應 (B)升力不對稱 (C)葉片蹣動趨勢

原始題號:0014733 題組:0 難易度:易

- (B) 17. 對直升機性能最為不利之綜合狀況為
(A)低高度、低總動及靜風 (B)高高度，高總重及靜風 (C)高高度，高總重及強風

原始題號:0014734 題組:0 難易度:易

- (A) 18. 為何高高度飛行會影響旋翼機性能?
(A)發動機及旋翼效能降低 (B)發動機及旋翼效能增加 (C)旋翼阻力增加，較正常飛行須要更大馬力

原始題號:0014735 題組:0 難易度:易

- (B) 19. 在低頻率範圍內之不正常直升機震動，可能與那一系統或那一組件有關
(A)尾旋翼 (B)主旋翼 (C)傳動箱

原始題號:0014736 題組:0 難易度:易

- (A) 20. 直升機飛行中突然發生高頻率震動，可能故障為那一系統
(A)傳動箱 (B)超速齒輪組 (C)主旋翼系

原始題號:0014737 題組:0 難易度:易

- (C) 21. 裝有何種旋翼系統之直升機較會產生地面共振?
(A)硬式旋翼系 (B)半硬式旋翼 (C)全關節式旋翼系

原始題號:0014738 題組:0 難易度:易

- (B) 22. 在發動機轉速低，歧管壓力指示高之狀況下，應採行何種措施以行改正?
(A)增加油門 (B)放低集體桿 (C)提升集體桿

原始題號:0014739 題組:0 難易度:易

- (C) 23. 直升機爬升時，歧管壓力指示低，發動機轉數高，應採行何種措施加以改正？
(A)增加油門 (B)降低油門 (C)提升集體桿

原始題號:0014740 題組:0 難易度:易

- (A) 24. 在何種地表滯空時需要最大馬力？
(A)青草叢中 (B)水泥機坪 (C)突凹不平地面

原始題號:0014741 題組:0 難易度:易

- (B) 25. 在炎夏飛行時，應使用何種飛行技巧？
(A)起飛時，迅速加速進入向前飛行 (B)起飛時，緩緩加速進入向前飛行 (C)全程飛行中，使用最低容許發動機轉速及最大容許歧管壓力

原始題號:0014742 題組:0 難易度:易

- (B) 26. 美系直升機在靜風狀況滯空飛行時，何時需用最大發動機馬力？
(A)有充分地面效應時 (B)利用左舵左轉時 (C)利用右舵右轉時

原始題號:0014743 題組:0 難易度:易

- (C) 27. 直升機自動旋轉時下列何者不正確？
(A)AAAA (B)飛行員使用集體控制下降率 (C)飛機在滿載狀況下急轉彎時尾旋翼轉速有下降趨勢

原始題號:0014744 題組:0 難易度:易

- (C) 28. 美系直升機自動旋轉時使用右舵協助右轉可能產生下述何種現象？
(A)旋翼轉速降低，機頭上翹，下降速度減低及空速增加 (B)旋翼轉速上升機頭上翹，下降速度減低及空速增加 (C)旋翼轉速上升機頭下沉，下降速度增加及空速減低

原始題號:0014745 題組:0 難易度:易

- (B) 29. 美系直升機自動旋轉時，使用左舵協助左轉將會對旋翼轉速造成何種影響？
(A)旋翼轉速增加，空速減低 (B)旋翼轉速減低，機頭下沉 (C)旋翼轉速加，機頭下沉

原始題號:0014746 題組:0 難易度:易

- (A) 30. 就大多數活塞式發動機美系直升機而言，在靜風狀況下滯空時，如欲使用右舵執行右轉動作，發動機將有下列何種現象？
(A)轉速增加 (B)轉速下降 (C)不受影響

原始題號:0014747 題組:0 難易度:易

- (A) 31. 直升機自動旋轉到地時，下列何種程序最為適宜？
(A)到地時機頭略高為適當程序 (B)到地時，滑橇應呈縱向水平 (C)到地後，迴旋桿略向後移，以減少滾行距離

原始題號:0014748 題組:0 難易度:易

- (A) 32. 設直升機總重為1,225磅大氣溫度為77°F請指出在獲有地面效應之高度為多少英尺？
(A)6 7 5 0呎 (B)7 2 5 0呎 (C)8 0 0 0呎

原始題號:0014749 題組:0 難易度:易

- (B) 33. 設直升機總重為1,175磅大氣溫度為95°F請指出在無地面效應之滯空高度為多少英呎?
(A) 5 0 0 0呎 (B) 5 2 5 0呎 (C) 6 2 5 0呎

原始題號:0014750 題組:0 難易度:易

- (B) 34. 直升機自停機坪起飛，預定飛高度為4,100呎，大氣溫度為90°F，預期使用之爬升速度為何?
(A) 2 1 0呎／分 (B) 2 5 0呎／分 (C) 3 9 0呎／分

原始題號:0014751 題組:0 難易度:易

- (B) 35. 如果在高度4,000呎大氣溫度為80°F，如欲超越50呎高度之障礙起飛，其需求為?
(A)須使用較滾行起飛更遠之距離 (B)須使用較滾行起飛更近之距離 (C)須使用與滾行起飛之相同距離

原始題號:0014752 題組:0 難易度:易

- (C) 36. 如果在高度4,000呎大氣溫度為80°F，欲超越一高度50呎之障礙，其起飛距離應為多少英呎?
(A) 1 2 2 5呎 (B) 1 4 4 0呎 (C)較滾行起飛距離略短之垂直起飛

原始題號:0014753 題組:0 難易度:易

- (B) 37. 在飛機重量降低時，下述何種最大範圍因素亦會降低。
(A)高度 (B)空速 (C)衝角

原始題號:0014754 題組:0 難易度:中

- (A) 38. 在下述何一狀況下發動機電嘴最易汙結?
(A)獲得高度後未行調整混合比操縱 (B)自巡航高度下降時未調整混合比 (C)快速推加油門

原始題號:0014755 題組:0 難易度:中

- (C) 39. 如果磁電機及點火開關間之搭地線斷開，發動機將?
(A)僅有一具磁電機產生作用 (B)磁電機開關置於雙開位置時無法起動 (C)汽缸內如有燃油攀動螺旋槳時仍可起動

原始題號:0014756 題組:0 難易度:中

- (C) 40. 燃油及空氣混合比係下列何者之間之比例?
(A)進入汽缸內之燃油量及空氣量 (B)進入汽缸內之燃油及空氣重量比 (C)進入汽化器內之燃油及空氣重量比

原始題號:0014757 題組:0 難易度:中

- (A) 41. 混合比調控柄(桿)可以調整混合比其目的為?
(A)防止在較高高度飛行時混合比變為富油 (B)經由汽化器文氏管限制空氣流量 (C)防止在飛機爬升時混合比變為貧油

原始題號:0014758 題組:0 難易度:中

- (A) 42. 最佳動力混合比係指下列何一狀況下之油汽混合比?
(A)汽缸頭溫度指示最低時 (B)油門設定在任何位置均可獲致最佳動力時 (C)歧管壓力指示最高或燃油設定狀況下均可得所須馬力時

原始題號:0014759 題組:0 難易度:中

- (C) 43. 飛行高度增加時如果將混合比調向貧油，將可發生何種狀況？
(A)進入汽化器之空氣量降低及燃油量降低 (B)進入汽化器之空氣密度降低及燃油量降低 (C)進入汽化器之空氣密度降低，燃油量不變

原始題號:0014760 題組:0 難易度:中

- (C) 44. 飛機高度增加後，除非將混合比適當調整，發動機會變為富油，係肇因於下述何種燃油量變化？
(A)空氣減少，油量減少。(B)空氣減少，油量未變。(C)空氣密度減少，油量未變。

原始題號:0014761 題組:0 難易度:中

- (A) 45. 在飛行高度上調整油氣混合比之主要目的為
(A)降低燃油流量，以補償空氣密度之降低 (B)減低混合比中之燃油量，以補償增加之空氣密度 (C)增加混合比中之燃油量以補償壓力及空氣密度之增加

原始題號:0014762 題組:0 難易度:中

- (B) 46. 在高高度中，混合比過度富油會造成下述那種狀況？
(A)發動機超溫 (B)電嘴汙結 (C)即使在高燃油消耗狀況下，可以使發動機運作更加順暢

原始題號:0014763 題組:0 難易度:中

- (A) 47. 下列相關汽化器加溫之說明何者正確？
(A)使油氣混合比富油 (B)使油氣混合比貧油 (C)油氣混合比無影響

原始題號:0014764 題組:0 難易度:易

- (A) 48. 使用汽化器加溫，將可？
(A)不影響混合比 (B)使油氣混合比貧油 (C)使油氣混合富油

原始題號:0014765 題組:0 難易度:中

- (C) 49. 電嘴正常點火之意外提前點火，乃眾所週知之
(A)瞬間燃燒 (B)爆震 (C)提前點火

原始題號:0014766 題組:0 難易度:中

- (C) 50. 活塞式飛機發動機之爆震多發生於何時？
(A)混合比過於富油 (B)因電線短路而使電嘴接受電子閃動 (C)汽缸內未燃之餘燼乃形成瞬間燃燒之主因

原始題號:0014767 題組:0 難易度:易

- (C) 51. 下列何種原因可以造成爆震
(A)混合比富油 (B)發動機溫度低 (C)使用低於標準規範之燃油

原始題號:0014768 題組:0 難易度:中

- (B) 52. 活塞式飛機發動機之內部冷卻，多仰賴於下述何種因素？
(A)散熱蓋罩作用正常 (B)潤滑油循環良好 (C)適當之壓縮冷媒輸出

原始題號:0014769 題組:0 難易度:易

- (B) 53. 發動機滑油溫度不正常攀高，可能由下述何一原因形成？
(A)軸承損壞 (B)滑油平面過低 (C)發動機在過度富油情況下操作

原始題號:0014770 題組:0 難易度:易

- (A) 54. 經常對飛機排氣歧管加溫系統加以檢查，係在減少發生下述何種狀況之可能？
(A)放廢氣滲入駕駛艙內 (B)因排氣系壓力迴流使馬力降低 (C)因溫度由加溫器吸收使溫車時間加長

原始題號:0014771 題組:0 難易度:易

- (C) 55. 尾旋翼系之主要功用為何？
(A)協助完成同位轉向 (B)直向飛行時維持航向 (C)抵消主旋翼葉片旋轉時所產生之扭力

原始題號:0014772 題組:0 難易度:中

- (C) 56. 尾旋翼可以產生向左推力嗎？
(A)否，僅可降低向右推力，導致尾部左轉 (B)是，使直升機滯空時，完成右轉動作 (C)是，主要在抵消自動旋轉時，傳動箱產生之阻力。

原始題號:0014773 題組:0 難易度:中

- (A) 57. 高密度高度如何影響直升機性能？
(A)發動機及旋翼效能降低 (B)發動機及旋翼效能增加 (C)增加旋翼阻力使正常飛行耗用更多馬力

原始題號:0014774 題組:0 難易度:中

- (C) 58. 下述何種操縱動作，可以使飛機快速停止？
(A)推迴旋桿提集體桿上右舵 (B)迴旋桿向後拉提集體桿上左舵 (C)迴旋桿向後拉，放低集體桿上右舵

原始題號:0014775 題組:0 難易度:易

- (B) 59. 無動力進場落地旋翼轉速有下列何種趨勢？
(A)維持不變 (B)起始時有增加趨勢 (C)起始時有降低趨勢

原始題號:0014776 題組:0 難易度:易

- (C) 60. 下述狀況中，何者會產生旋翼最低轉速？
(A)在動力狀況下垂直下降 (B)在無動力狀況下垂直下降 (C)大坡度爬升後拉平時

原始題號:0014777 題組:0 難易度:易

- (B) 61. 飛行高度增高時，直升機之VNE最大空速將會
(A)增加 (B)降低 (C)維持不變

原始題號:0014778 題組:0 難易度:易

- (B) 62. 巡航飛行中抗扭力系統失效並開始動力進場落地時，落地前機頭有向右偏移現象，為使機頭向左，飛行員應執行何種處置？
(A)增加油門 (B)降低油門 (C)增加集體桿螺矩

原始題號:0014779 題組:0 難易度:易

- (B) 63. 起飛期間直升機飛行員可以不理會地面共震嗎？
(A)否，地面共震僅會在自動旋轉到地時發生 (B)是，地面共震雖多在落地時發生起飛時也會 (C)是，只有在斜坡地起飛時才會發生

原始題號:0014780 題組:0 難易度:易

- (C) 64. 直升機以高速向前飛行時，在下述何種狀況下可能發生後退葉片失速？
(A)總重輕，高密度高度及微風狀況 (B)總重大，低密度高度及微風狀況 (C)總重大，高密度高度及亂流

原始題號:0014781 題組:0 難易度:易

- (C) 65. 在正常進場至滯空階段，集體桿主要係用以？
(A)維持主旋翼轉速 (B)控制停止速率 (C)控制下降角度

原始題號:0014782 題組:0 難易度:易

- (B) 66. 在斜坡落地時，迴旋桿係用於控制
(A)藉以將下坡側之滑橈向下置於地面 (B)將上坡側之滑橈持定於觸及地面上 (C)持定旋翼轉盤使於斜坡平行

原始題號:0014783 題組:0 難易度:易

- (C) 67. 斜坡落地之程序為何？
(A)使用最大旋翼轉速及歧管壓力 (B)斜度如在 10° 以下，落地應與斜坡呈直角 (C)與坡度平行時先將上坡側滑橈緩緩放下，再放下下坡側滑橈

原始題號:0014784 題組:0 難易度:易

- (C) 68. 在汽化器加溫狀況下起飛會造成下述何種狀況？
(A)起飛中須要較大馬力時會有貧油現象 (B)降低起飛距離 (C)增加滾行距離

原始題號:0014785 題組:0 難易度:中

- (C) 69. 旋翼轉數加速期間，遇有地面共震時，應立即採行何種措施？
(A)將飛機滑行至平坦區域 (B)立即採行正常起飛 (C)關閉油門，並緩緩提升集體桿

原始題號:0014786 題組:0 難易度:易

- (B) 70. 在巡航高度上，如果發動機完全失效，飛行員應如何處置？
(A)局部放低集體桿，關油門，再將集體桿放至全下位置 (B)視需要放低集體桿維持旋翼轉速上右舵維持方向 (C)關油門集體桿放至全下位置上左舵，維持方向並建立正常無動力下滑

原始題號:0014787 題組:0 難易度:易

- (A) 71. 有關直升機滑行程序，下列說明何者正確？
(A)旋翼旋轉中避免突然移動操縱桿 (B)全程均應將迴旋桿置於中性位置 (C)全程應將迴旋桿持定於少後位置

原始題號:0014788 題組:0 難易度:中

- (B) 72. 有關渦流散佈，下列說明何者正確？
(A)直升機僅會產生下射陣風 (B)重型直升機慢速飛行，飛機所產之渦流旋力最強 (C)渦流下沉進入地面效應時，會迅速消散不致產生危險

原始題號:0014789 題組:0 難易度:易

- (A) 73. 校準空速之最佳說明為指示空速，所校準之因素為何？
(A)安裝及儀表誤差 (B)儀表誤差 (C)非標準氣溫

原始題號:0014790 題組:0 難易度:易

- (B) 74. 起飛前確定壓力高度時，高度表調整應調至？
(A)現在顯示之高度表值 (B)高度表顯示在 29.92 HG (C)機場標高及高度表閱窗所顯示之高度

原始題號:0014791 題組:0 難易度:易

- (B) 75. 飛機在 $18,000\text{呎MSL}$ 飛行時，高度表應如何調置？
(A)沿途塔台所報告之高度表設定 (B) 29.92 HG (C)離場或到場之高度表調置

原始題號:0014792 題組:0 難易度:中

(B) 76. 有關磁羅盤之磁差，下述何者正確？

(A)無偏差線轉移時有所差異 (B)同一飛機航向轉移時有所差異 (C)在同一位置對所有飛機相同

原始題號:0014793 題組:0 難易度:易

(B) 77. 在維持一標準轉彎率之狀況下，完成一個360°轉彎須要多久時間？

(A)一分鐘 (B)兩分鐘 (C)三分鐘

原始題號:0014794 題組:0 難易度:易

(A) 78. 動力飛機目視夜航時之必要裝備為何？

(A)防撞燈系 (B)迴轉方向儀 (C)迴轉傾側儀

原始題號:0014795 題組:0 難易度:易

(A) 79. 飛機上如未安裝必要之機身位置燈，在何種狀況下必須停止飛行？

(A)在日落時 (B)在日落後三十分鐘 (C)在日落後一個小時

原始題號:0014796 題組:0 難易度:易

(A) 80. 若飛機上未裝用電系或防撞燈系在何種狀況下該機不可飛行？

(A)日落後及日升前 (B)天黑後 (C)日落後一個小時

原始題號:0014797 題組:0 難易度:易

(C) 81. 飛機保養紀錄至少應包括下列何項之最新狀況？

(A)適航認證 (B)發動機年度檢查紀錄 (C)每一發動機、螺旋槳、旋翼及裝備之壽限零件

原始題號:0014798 題組:0 難易度:易

(C) 82. 由發動機工廠翻修完成之發動機其所用新式表格應包括下列何種經歷資料？

(A)發動機先前使用時數 (B)發動機年度檢查紀錄 (C)依適航指令所作之修改

原始題號:0014799 題組:0 難易度:易

(C) 83. 確保適航指令之執行，係下列何者之責任？

(A)機長及該機之有照機工長 (B)該機機長 (C)飛機之所有人或航空公司

原始題號:0014800 題組:0 難易度:易

(A) 84. 當降落於一G級空域及航管設備之機場時，直升機飛行員應如何處置？

(A)盡量避開定翼機航路 (B)除另有指示外，所有轉變均使用左轉 (C)以八百呎高度預飛一落地航路

原始題號:0014801 題組:0 難易度:中

(C) 85. 在航空圖上由藍色虛線圍繞之機場，係表示下列何者之分界線？

(A)特別目視飛行空域 (B)B級空域 (C)D級空域

原始題號:0014802 題組:0 難易度:中

(A) 86. 使用VHF / DF 協尋自己位置時，機上必須裝有作用良好之VHF

(A)發射機及接收機 (B)發射機及接收機及作用良好之A D F接收機 (C)發射機及接收機及作用良好之V O R接收機

原始題號:0014803 題組:0 難易度:易

(A) 87. 在何種狀況下，飛行員必須啟用防撞燈系統

(A)發動機運轉期間 (B)飛行員坐入駕駛艙內時 (C)白晝及夜間各類飛行作業期間

原始題號:0014804 題組:0 難易度:易

(B) 88. Taxiway ending 標誌係指示?

(A)滑行道路端 (B)禁止飛機通行區域 (C)提供至命名滑行道之方向

原始題號:0014805 題組:0 難易度:易

(A) 89. 在擬定夜航長途飛行計劃時，飛行員應以下列何條為檢查要項?

(A)航路及目的地機場燈光系統狀況及可用程度 (B)航路上紅色燈光 (C)紅色信標旋轉燈安裝位置

原始題號:0014806 題組:0 難易度:易

(C) 90. 信標燈閃爍紅色燈光係指示下列何一狀況?

(A)跑道末端警告區 (B)指示飛行員勿入機場起降航道繼續待命 (C)有礙空中導航之障礙或區域

原始題號:0014807 題組:0 難易度:易

(A) 91. 夜航中計劃緊急落地時，主要考量之一應包含下列何項?

(A)可能時選擇一鄰近共眾之地區 (B)不使用機襟翼，觸地時維持機頭高度 (C)關斷所有電氣開關，節省電瓶電力方便落地

原始題號:0014808 題組:0 難易度:易

(B) 92. 夜航中因引擎故障緊急落地時，主要考量之一應包含下列何項?

(A)關斷所有電氣開關，節省電瓶電能用於落地 (B)計劃緊急落地並在無燈光區域內落地 (C)操控飛機使在有指燈光之快速道路上降落

原始題號:0014809 題組:0 難易度:易

(C) 93. 計劃夜航長途飛行時，飛行員應檢查下列何項之可用度及妥善度?

(A)用於航路上之所有 V O R (B)機場旋轉信標燈 (C)目的地機場燈光系統

原始題號:0014810 題組:0 難易度:易

(C) 94. 空中迷向時，飛行員應當採行之最佳方法為?

(A)靠身體感應 (B)增加呼吸頻率 (C)依照飛機儀表指示

原始題號:0014811 題組:0 難易度:易

(C) 95. 下述有關高壓及低壓系統何者正確?

(A)所謂高壓區即上升空氣區 (B)所謂低壓區即下降空氣區 (C)所謂高壓區即下降空氣區

原始題號:0014812 題組:0 難易度:中

(B) 96. 關於高壓或低壓系統，下列各說明何者正確?

(A)高壓區即空氣上升區 (B)低壓區或低壓槽即空氣上升區 (C)高壓及低壓二者均具有下降空氣特性

原始題號:0014813 題組:0 難易度:中

(B) 97. 當飛機飛入北半球之低壓區時，風向及風速將可何形成?

(A)自左方並降低風速 (B)自左方並升高風速 (C)自右側並降低風速

原始題號:0014814 題組:0 難易度:中

(A) 98. 下列何項可以降低空氣團之穩定度？

(A)向上蒸發之暖空氣 (B)向上升起之冷空氣 (C)水分降低

原始題號:0014815 題組:0 難易度:中

(B) 99. 下列何者可以增加氣團之穩定？

(A)向上蒸發之暖空氣 (B)向上升起之冷空氣 (C)水分降低

原始題號:0014816 題組:0 難易度:中

(C) 100. 集雨雲形成之必要條件為上升作用加下列何一條件？

(A)不穩定之乾空氣 (B)穩定之溫空氣 (C)不穩定之溫空氣

原始題號:0014817 題組:0 難易度:中

(C) 101. 下列何項為冷氣團移向高溫表面上之特有現象？

(A)集雲，陣風及低能見度 (B)集雲，陣風及能見度良好 (C)層雲，無風及能見度低

原始題號:0014818 題組:0 難易度:易

(A) 102. 在機裝雷達上收到強力雷雨反射波時，採行閃避行動之最低距離應為多少哩？

(A)二〇英哩 (B)一〇英哩 (C)五英哩

原始題號:0014819 題組:0 難易度:易

(A) 103. 有關暴風雪之說明下列陳述何者正確？

(A)經常與冷鋒相關 (B)形成緩慢但移動快速 (C)無預兆，但經常含有嚴重而穩定之雷雨

原始題號:0014820 題組:0 難易度:易

(C) 104. 風切的特性如何？

(A)只在低高度呈水平方向運動 (B)在任何高度均可發生呈水平及垂直方向運動 (C)無預兆，但經常含有嚴重而穩定之雷雨

原始題號:0014821 題組:0 難易度:易

(A) 105. 設3000呎高度之風速為30哩，地面靜風，在晴朗天氣及太陽升起後數小時之對流陣風狀況下，飛行員應如何落地？

(A)使用略高於正常進場空速避免失速 (B)使用正常或略低於正常進場空速，以補償浮力 (C)無須更換，此等狀況接近理想

原始題號:0014822 題組:0 難易度:易

(A) 106. 飛機離場時，懷疑有低高度風切狀況，逆風風速突然降低將導致，下述何種現象？

(A)損失之空速，相當於風速降低之哩數 (B)獲得之空速相當於風速降低之哩數 (C)空速無變化，但地面速度降低

原始題號:0014823 題組:0 難易度:易

(C) 107. 下列文件中，何者可以提供目視及儀器飛行氣象資料？

(A)地面天氣圖 (B)雷達摘要表 (C)氣象說明表

原始題號:0014824 題組:0 難易度:易

(C) 108. 藉使用下述那種公式可以算出飛機重力中心？

(A)總力臂除以總力矩 (B)總力臂乘以總重量 (C)總力矩除以總重量

原始題號:0014825 題組:0 難易度:中

- (B) 109. 設重量A 155磅位於基線之後45吋處，重量B 165磅位於基線之後145吋處，重量C 95磅位於基線之後185吋處，依據上述資料算出基線之後之重心位置？
(A) 86 · 0吋 (B) 116 · 8吋 (C) 125 · 2吋

原始題號:0014826 題組:0 難易度:中

- (B) 110. 對直升機裝載時，將重力中心置於重力中心容許限制之前，下列何種說明較為正確？
(A)如果飛機燃油箱在主承桿之後燃油消耗後較無危險發生 (B)發動機失效後自動旋轉迴轉桿操縱量不足無法使飛機平飄落地 (C)巡航飛行中遭遇陣風迴旋桿向前操縱量不足無法放低機頭

原始題號:0014827 題組:0 難易度:易

- (C) 111. 氣溫變化或空氣密度改變，對渦輪發動機有何種影響？
(A)空氣密度降低推力增加 (B)氣溫增高，推力增加 (C)氣溫增高，推力降低

原始題號:0014828 題組:0 難易度:易

- (C) 112. 在海平面高度時，下列何者為標準氣溫與標準壓力值？
(A) 15°C及29 · 92 HG (B) 59°F及1013 · 2 HG (C) 59°C及1013 · 2 HG

原始題號:0014829 題組:0 難易度:中

- (B) 113. 在強風及陣風狀況下，峰頂落地時應採用之進場方式為何？
(A)正常進場 (B)大坡度進場 (C)小坡度進場

原始題號:0014830 題組:0 難易度:易

- (B) 114. 直昇機駕駛員的位置通常位在直昇機的哪一邊？
(A)左邊 (B)右邊 (C)中間 (D)沒有一個答案正確

原始題號:0014831 題組:0 難易度:易

- (D) 115. 當使用拖桿拖移直昇機時，有些注意事項要遵守：
a) 要有足夠的人力來確保直昇機的所有組件都在視線範圍內。
b) 拖機過程要很平順沒有顛簸的拖行。
c) 所有轉動的組件要固定好。
d) 拖機轉彎半徑要在規定範圍內；
個答案正確？
(A)僅a, b和c正確 (B)僅b, c和d正確 (C)僅a, c和d正確 (D)a, b, c和d全正確

哪

原始題號:0014832 題組:0 難易度:中

- (C) 116. 直昇機上的大型組件通常提供了什麼裝置來方便拆裝組件
(A)頂點 (B)支撐點 (C)吊升點 (D)不需要

原始題號:0014833 題組:0 難易度:易

- (D) 117. 軸承可用來承載什麼種類的負載：
(A)推力負載 (B)轉動負載 (C)振盪負載 (D)以上三項都可

原始題號:0014834 題組:0 難易度:中

- (B) 118. 何者最可能是決定軸承壽命長短的因素？
(A)軸承的材質 (B)軸承的潤滑 (C)軸承的型別 (D)軸承在直昇機上的位置

原始題號:0014835 題組:0 難易度:中

- (C) 119. 軸承的變色通常是超溫的現象，其導致的原因是
(A)超速 (B)安裝不當 (C)缺乏潤滑 (D)不正常的高頻振動

原始題號:0014836 題組:0 難易度:中

- (D) 120. 齒輪可用來：
a) 傳輸動力 b) 改變方向
c) 改變速度
(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014837 題組:0 難易度:中

- (D) 121. 主旋翼系統在操作時會承受一些應力，其應力為：
a) 離心力 b) 振動力
c) 扭力 d) 屈曲力
(A)僅a, b和c正確 (B)僅b, c和d正確 (C)僅a, c和d正確 (D)a, b, c和d全正確

原始題號:0014838 題組:0 難易度:易

- (B) 122. 現今最廣為使用的旋翼系為：
(A)硬式與半硬式系 (B)半硬式與全關節式系 (C)硬式與全關節式系 (D)沒有一個答案正確

原始題號:0014839 題組:0 難易度:中

- (B) 123. 裝置了蹺板軸(Seesaw axis)或蹣動軸(Flapping axis)的旋翼系屬於
(A)硬式旋翼 (B)半硬式旋翼 (C)全關節式旋翼 (D)硬式與全關節式旋翼

原始題號:0014840 題組:0 難易度:中

- (C) 124. 趨前(Lead)與趨後(Lag)動作的控制主要是藉由何者來完成
(A)致動器 (B)彈簧連桿 (C)緩衝器 (D)趨前-趨後鉸鏈

原始題號:0014841 題組:0 難易度:易

- (D) 125. 旋翼的材質可為：
a) 木材 b) 金屬 c) 複合材料
(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014842 題組:0 難易度:中

- (C) 126. 當旋翼葉片重新噴漆後，旋翼系的哪個程序是必須要執行的？
(A)動力微調 (B)變距微調 (C)重新平衡 (D)不需要執行任何程序

原始題號:0014843 題組:0 難易度:中

- (A) 127. 試比較旋翼葉片在翼根與葉片外部損傷的嚴重性。
(A)在接近翼根部位的損傷嚴重性比葉片外部來得嚴重。(B)在接近葉片外部的損傷嚴重性比翼根部位來得嚴重。(C)在接近翼根部位的損傷嚴重性和葉片外部一樣嚴重。(D)在接近翼根部位的損傷嚴重性比葉片外部來得輕微。

原始題號:0014844 題組:0 難易度:中

- (B) 128. 旋翼頭是高應力集中的組件，通常包含了哪類零件？
(A)高價件 (B)定更件 (C)平衡件 (D)修護件

原始題號:0014845 題組:0 難易度:中

(D) 129. 旋翼系在何者情況下要執行特殊檢查？

a) 超速 b) 突然停止 c) 重落地

(A)僅 c 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014846 題組:0 難易度:中

(B) 130. 當拆除旋翼頭時,變距組件有個步驟要執行,以避免拆除過程中損傷到。試問此步驟為何？

(A)使用特殊保護套保護。(B)使用特殊固定架固定。(C)使用特殊潤滑劑潤滑。(D)不需要執行任何程序

原始題號:0014847 題組:0 難易度:易

(C) 131. 拆卸下來的旋翼片應該要擺放在哪裡以避免儲存過程中造成損傷。

(A)地面上 (B)長型桌板 (C)葉片型架 (D)以上答案皆可

原始題號:0014848 題組:0 難易度:中

(A) 132. 葉片校準(Blade alignment)主要是要確定何者之間的正確關係。

(A)重心與中心壓力 (B)重心與葉片翼展中心 (C)重心與葉片翼張中心 (D)沒有一個答案正確

原始題號:0014849 題組:0 難易度:易

(C) 133. 半硬式旋翼系需要執行哪種靜態平衡。

(A)僅翼張(Chordwise)靜態平衡 (B)僅翼展(Spanwise)靜態平衡 (C)翼張與翼展靜態平衡 (D)不需要執行靜態平衡

原始題號:0014850 題組:0 難易度:中

(B) 134. 在一些旋翼系中,翼張平衡的獲得,可藉由移動一片葉片上的校準點往哪個方向？

(A)往前 (B)往後 (C)向內 (D)向外

原始題號:0014851 題組:0 難易度:中

(C) 135. 何項因素是導致組件變形的主因？

(A)超速 (B)超載 (C)過度振動 (D)不平衡

原始題號:0014852 題組:0 難易度:中

(D) 136. 導致旋轉組件產生振動的情況為何？

(A)超速 (B)超載 (C)不當安裝 (D)不平衡

原始題號:0014853 題組:0 難易度:易

(D) 137. 就直昇機而言,振動的範圍可分為: a) 極低頻振動 b) 低頻振動 c) 中頻振動 d) 高頻振動 e) 超高頻振動

(A)僅a, b和c正確 (B)僅b, c和d正確 (C)僅b, c, d和e正確 (D)僅a, b, c和d正確

原始題號:0014854 題組:0 難易度:易

(C) 138. 簡單的說,旋翼的振動可區分為:

(A)垂向振動 (B)橫向振動 (C)垂向與橫向振動 (D)沒有一個答案正確

原始題號:0014855 題組:0 難易度:中

(C) 139. 橫向振動的產生通常與旋翼系的哪個情況有關？

(A)超速 (B)超載 (C)不平衡 (D)缺乏潤滑

原始題號:0014856 題組:0 難易度:中

- (D) 140. 旋翼系定軌的方法可為： a) 標竿法 b
旗幟法 c) 光反射法
d) 預先定軌法 e) 電子閃光法
(A)a, b和c正確 (B)a, b, c和d正確 (C)a, b, c和e正確 (D)a, b, c, d和e都正確
- 原始題號:0014857 題組:0 難易度:易
- (C) 141. 在定軌(Tracking)開始階段, 配平補片必須擺放在什麼位置?
(A)朝上 (B)朝下 (C)中間歸零 (中性) (D)沒有一個答案正確
- 原始題號:0014858 題組:0 難易度:中
- (C) 142. 大多數的全關節式旋翼使用緩衝器來調節旋翼葉片的哪一軸向的動作?
(A)垂直軸向 (B)水平軸向 (C)趨前趨後軸向 (D)縱軸向
- 原始題號:0014859 題組:0 難易度:易
- (C) 143. 一個失效的緩衝器會因為葉片一直處在不正確的位置而在旋翼上有什麼現象?
(A)超速 (B)超載 (C)不平衡 (D)超溫
- 原始題號:0014860 題組:0 難易度:易
- (B) 144. 當自動旋轉的轉速如何時, 後退葉片(Retreating Blade)的失速就可能產生?
(A)過於慢 (B)過於快 (C)超速 (D)超載
- 原始題號:0014861 題組:0 難易度:易
- (A) 145. 當自動旋轉的轉速如何時, 升力的產生將不足以維持直昇機的飛行。
(A)過於慢 (B)過於快 (C)超速 (D)超載
- 原始題號:0014862 題組:0 難易度:中
- (B) 146. 自動旋轉的轉速受何者影響? a) 直昇機的總重量 b) 動力轉速 c) 高度密度 d
高度溫度
(A)a 和 b 正確 (B)a 和 c 正確 (C)b 和 c 正確 (D)c 和 d 正確
- 原始題號:0014863 題組:0 難易度:易
- (C) 147. 主承桿通常承載了哪種負載力?
(A)扭力負載 (B)張力負載 (C)扭力與張力負載 (D)主承桿並不承載任何負載力
- 原始題號:0014864 題組:0 難易度:易
- (A) 148. 水平安定桿(Stabilizer bar)需要完成何種平衡以確保操作時的平順。
(A)靜態平衡 (B)動態平衡 (C)靜態與動態平衡 (D)不需要
- 原始題號:0014865 題組:0 難易度:易
- (A) 149. 緩衝器(Dampener)的動作過於如何時, 會導致直昇機的操控反應時間延遲, 而有過於穩定的結果。
(A)太軟 (B)太硬 (C)適中 (D)任何情況均會
- 原始題號:0014866 題組:0 難易度:易
- (B) 150. 緩衝器(Dampener)的動作過於如何時, 會導致直昇機的操控反應時間太快, 而有不穩定的結果。
(A)太軟 (B)太硬 (C)適中 (D)任何情況均會
- 原始題號:0014867 題組:0 難易度:易

- (C) 151. 迴旋控制(Cyclic control)動作要能讓旋翼偏向何方: a) 向左、b) 向右、c) 向前、d) 向後、e) 向上、f) 向下
(A)a 和 b 正確 (B)c 和 d 正確 (C)a, b, c 和 d 正確 (D)a, b, e 和 f 正確

原始題號:0014868 題組:0 難易度:易

- (B) 152. 往復式引擎直昇機的集體桿(Collective)配置了一組扭轉握柄(Twist grip), 其目的是用來控制:
(A)直昇機的方向 (B)引擎的油門 (C)直昇機的高度 (D)直昇機的飛行速度

原始題號:0014869 題組:0 難易度:易

- (C) 153. 許多新式的過濾器系統(Filtering systems), 附有何種裝置來作為過濾器發生旁通時的指示?
(A)壓力指示器 (B)壓力表 (C)警告按鈕/警告指示器 (D)警告燈

原始題號:0014870 題組:0 難易度:易

- (C) 154. 液壓油的高使用率說明了什麼現象?
(A)超溫 (B)超壓 (C)洩漏 (D)正常

原始題號:0014871 題組:0 難易度:中

- (B) 155. a) 在更換過濾器之前, 過濾系要在有壓力的狀況下來檢查過濾器的洩漏。 b) 過濾器更換後, 過濾系要在有壓力的狀況下來檢查過濾器的洩漏。 c) 過濾器更換後, 過濾系要在無壓力的狀況下來檢查過濾器的洩漏。 何項敘述正確?
(A)a 正確 (B)b 正確 (C)c 正確 (D)沒有一個答案正確

原始題號:0014872 題組:0 難易度:易

- (D) 156. 大多數的直昇機, 其迴旋控制系(Cyclic control)在裝調時, 要將迴旋桿擺在什麼位置?
(A)前方到底 (B)後方到底 (C)左右任一方到底 (D)中間不受力位置

原始題號:0014873 題組:0 難易度:中

- (B) 157. 旋翼不能如同引擎在高轉速下操作的原因為何: a) 旋翼的材質, b) 旋翼的翼尖速度, c) 後退葉片的失速
(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全正確

原始題號:0014874 題組:0 難易度:易

- (A) 158. a) 傳動箱(Transmissions)是用來降低引擎的速度以配合旋翼的速度。
b) 傳動箱(Transmissions)是用來增加引擎的速度以配合旋翼的速度。
c) 傳動箱(Transmissions)是用來降低旋翼的速度以配合引擎的速度。
d) 傳動箱(Transmissions)是用來增加旋翼的速度以配合引擎的速度。
何項說明正確?
(A)a 正確 (B)b 正確 (C)c 正確 (D)d 正確

原始題號:0014875 題組:0 難易度:易

- (B) 159. 傳動軸系(Drive shaft system)在一些直昇機中, 安裝在直昇機的哪兩個組件之間? 當使用了傳動軸系時, 會配合傳動軸系裝置一個離合器。
(A)引擎與旋翼之間 (B)引擎與傳動箱之間 (C)傳動箱與旋翼之間 (D)沒有一個答案正確

原始題號:0014876 題組:0 難易度:中

- (B) 160. 在啟動引擎時，哪個裝置是用來消除引擎因轉動旋翼所需的動力負載。
(A)空轉器(Free wheeling unit) (B)離合器 (C)變距件 (D)變向盤組

原始題號:0014877 題組:0 難易度:中

- (B) 161. a) 空轉器(Free wheeling unit)可允許傳動箱驅動旋翼但能避免旋翼驅動引擎。
b) 空轉器(Free wheeling unit)可允許引擎驅動傳動箱但能避免旋翼驅動引擎。
c) 空轉器(Free wheeling unit)可允許旋翼驅動傳動箱但能避免旋翼驅動引擎。
d) 空轉器(Free wheeling unit)可允許引擎驅動傳動箱但能避免傳動箱驅動旋翼。
何項說明正確?
(A)a 正確 (B)b 正確 (C)c 正確 (D)d 正確

原始題號:0014878 題組:0 難易度:易

- (B) 162. 空轉器(Free wheeling unit)的操作通常是:
(A)手動 (B)自動 (C)手動或自動 (D)手動與自動同時

原始題號:0014879 題組:0 難易度:易

- (B) 163. 不論空轉器(Free wheeling unit)處在什麼位置，在自動旋轉時，哪個旋翼要能轉動?
(A)主旋翼 (B)尾旋翼 (C)主旋翼與尾旋翼 (D)沒有一個答案正確

原始題號:0014880 題組:0 難易度:中

- (C) 164. 在液壓機械式的離合器中，哪個組件是當旋翼轉速到達時，作為機械耦合用的?
(A)傳動箱 (Transmission unit) (B)驅動組件(Drive unit) (C)空轉器(Free wheeling unit) (D)沒有一個答案正確

原始題號:0014881 題組:0 難易度:中

- (C) 165. a) 止輪組件(Sprag unit)是現今最通用的空轉器(Free wheeling unit)。
b) 止輪組件(Sprag unit)可雙向傳動。 c) 止輪組件(Sprag unit)的潤滑油來自於傳動箱。
何項說明正確?
(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014882 題組:0 難易度:中

- (A) 166. 有些直昇機裝有旋翼煞車(Rotor brake)，此裝置裝在哪兩個組件之間?
(A)引擎與傳動箱 (B)傳動箱與主旋翼 (C)傳動箱與尾旋翼 (D)引擎與旋翼

原始題號:0014883 題組:0 難易度:易

- (D) 167. 旋翼煞車(Rotor brake)的作用是用來?
(A)引擎啟動前使旋翼停止 (B)引擎關車前使旋翼停止 (C)引擎啟動後使旋翼停止 (D)引擎關車後使旋翼停止

原始題號:0014884 題組:0 難易度:中

- (B) 168. 大多數的操作員會限制旋翼煞車(Rotor brake)的使用，是因為煞車組件的什麼因素所致?
(A)溫度 (B)磨損 (C)材質 (D)以上答案皆正確

原始題號:0014885 題組:0 難易度:中

- (B) 169. a) 當沒有旋翼煞車時，主旋翼的慣性會使主旋翼於引擎開車後繼續的旋轉。
b) 煞車組件通常安裝在到傳動箱的輸入位置。
c) 煞車可以是液壓或是手動操作。

何項

說明正確?

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014886 題組:0 難易度:中

- (A) 170. a) 啟動時，引擎轉速會超前旋翼轉速直到離合器完全接合時。
b) 啟動時，旋翼轉速會超前引擎轉速直到離合器完全接合時。
c) 啟動時，引擎轉速會超前旋翼轉速直到離合器完全脫離時。
d) 啟動時，旋翼轉速會超前引擎轉速直到離合器完全脫離時。

何項說明正確?

(A)a 正確 (B)b 正確 (C)c 正確 (D)d 正確

原始題號:0014887 題組:0 難易度:中

- (D) 171. a) 空轉器(Free wheeling unit)故障時，直昇機將有自動旋轉失效的問題。
b) 空轉器(Free wheeling unit)於起飛前的啟動檢查是藉由轉速表得知的。
c) 有些空轉器(Free wheeling unit)自備滑油供給系，此滑油供給系需要保養。

何項說明正確?

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014888 題組:0 難易度:易

- (C) 172. a) 傳動箱通常安裝在半彈性式的基座上，以期能緩衝振動。
b) 除了基座要有彈性的要求外，基座還要能承載直昇機的重量以及吸收旋翼基座所產生的扭力負載。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014889 題組:0 難易度:中

- (A) 173. a) 止輪基座(Sprag mount)上的螺牙式連桿末端是用來校準主軸承的。
b) 止輪系(Sprag system)的不當調整會影響直昇機的地面操作性能，同時會造成不正常的振動。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014890 題組:0 難易度:中

- (D) 174. a) 空轉器(Free wheeling unit)的內側環圈，在引擎正在驅動旋翼的過程，其作用為自由旋轉齒輪。

b) 若當旋翼在轉動時，內側環圈的作用改為固定齒輪。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014891 題組:0 難易度:易

- (C) 175. a) 現今製造的傳動箱(Transmissions)，已從傳動箱的潤滑系中，將引擎的潤滑系區隔開了。

b) 滑油溫度一直是得知傳動箱(Transmissions)狀況的最佳指示依據。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014892 題組:0 難易度:易

(D) 176. 附件傳動齒輪(Accessory drive gear)，轉動下列何項組件：

- a) 傳動箱滑油泵
- b) 液壓泵
- c) 旋翼轉速器

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014893 題組:0 難易度:中

(C) 177. a) 從壓力泵出來的滑油會流入滑油冷卻器。

- b) 當滑油溫度過高時，進入滑油冷卻器的滑油會被旁通掉。
- c) 滑油冷卻器的鼓風器是由主傳動軸帶動的。

何項說明正確？

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014894 題組:0 難易度:易

(D) 178. a) 操作手冊有時也稱做飛行手冊。

- b) 操作手冊的第一節內容包含了直昇機的操作限制規範。
- c) 操作手冊的第二節內容則包含了程序步驟。

何項說明正確？

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014895 題組:0 難易度:中

(D) 179. a) 增加最大速度是增加馬力的方法之一。

- b) 所有的往復式引擎都需要使用風扇來作為冷卻的裝置。
- c) 主旋翼通常都在恆定的轉速下操作。

何項說明正確？

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014896 題組:0 難易度:易

(A) 180. a) 在直昇機組裝時，引擎的動力要事先配調好，以期能維持旋翼的轉速。

- b) 在直昇機組裝時，慢車所需要的是低的轉速。

何項說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014897 題組:0 難易度:易

(D) 181. 冷卻風扇的振動通常以唧唧響(Buzz)被認定，其產生的原因來至？

- (A)極低頻 (B)低頻 (C)中頻 (D)高頻

原始題號:0014898 題組:0 難易度:中

(C) 182. a) 集體桿(Collective)上的扭轉握柄(Twist grip)很相似於摩托車上所使用的油門，除了他們的動作方向相反外。

- b) 扭轉握柄(Twist grip)減速的位置是在手握握柄時朝拇指的方向。

何項說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014899 題組:0 難易度:易

(A) 183. a) 引擎更換後，相關系統的重新裝調是需要的。

b) 集體桿的裝調不會影響其他系統。

何項說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014900 題組:0 難易度:易

(B) 184. a) 試飛前，相關裝調要做微調的動作。

b) 試飛

後，相關裝調要做微調的動作。

何項說明正

確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014901 題組:0 難易度:易

(C) 185. 使用在直昇機上的渦輪引擎屬於：

a) 噴射渦輪(Turbo jet)

b) 扇型渦輪(Turbo fan)

c) 軸式渦輪(Turbo shaft)

(A)a 正確 (B)b 正確 (C)c 正確 (D)沒有一個答案正確

原始題號:0014902 題組:0 難易度:易

(C) 186. a) 軸式渦輪引擎(Turboshaft engines)通常內裝一組齒輪減速裝置，用來降低渦輪的轉速。

b) 軸式渦輪引擎(Turboshaft engines)可再區分為直軸式渦輪與自由式渦輪。

何項說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014903 題組:0 難易度:中

(A) 187. a) 自由式渦輪(Free turbine)的動力傳動來自於渦輪，而不連接於壓縮器。

b) 直軸式渦輪引擎(Direct drive turbine)的轉速與渦輪一樣，是因為他們共用同一轉軸。

何項說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014904 題組:0 難易度:中

(A) 188. a) 現今大多數的直昇機渦輪所使用的壓縮器，是一種軸式(Axial)與離心式(Centrifugal)壓縮器組合成一體的壓縮器。

b) 此壓縮器的第一部份屬於離心式，後級則為軸式。

何項說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014905 題組:0 難易度:易

(C) 189. a) 軸式壓縮器(Axial compressor)的每一級是由一組定子與一組轉子組成的。

b) 轉子用來增加氣流的速度，定子則用來產生壓力。

何項說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014906 題組:0 難易度:易

- (A) 190. a)進入燃燒室的空氣是用來幫助燃燒與冷卻用的。
b)進入燃燒室的空氣僅用來幫助燃燒。
c)進入燃燒室的空氣僅用來幫助冷卻。
何項說明正確?
(A)a 正確 (B)b 正確 (C)c 正確 (D)沒有一個答案正確

原始題號:0014907 題組:0 難易度:中

- (C) 191. a)往復式引擎的動力是藉由歧管壓力表量測得知的。
b)軸式渦輪引擎的引擎輸出動力是藉由扭力表量測得知的。
何項說明正確?
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014908 題組:0 難易度:易

- (A) 192. a)在自由式渦輪(Free turbines)中使用了兩組轉速表：一組讀取壓縮器的轉速，另一組讀取動力渦輪的轉速。
b)使用在軸式渦輪引擎的轉速表，通常都是以最低轉速的百分比來讀取的。
何項說明正確?
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014909 題組:0 難易度:易

- (A) 193. a)自由式渦輪(Free turbines)在運轉時，N1與N2轉速表的讀數是不同的。
b)於地面操作時，壓縮器轉速表的讀數會比動力渦輪來得高。
何項說明正確?
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014910 題組:0 難易度:中

- (D) 194. 引擎尾溫表在什麼時候要很謹慎地監視： a) 引擎啟動時
b) 以高承載情況起飛時
c) 外圍溫度很高時
(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014911 題組:0 難易度:中

- (B) 195. 多數的直昇機在渦輪引擎的進氣口處都需要裝置粉塵分離器(Particle sepsrator)。收集的粉塵是以何種力量排出過濾器的?
(A)慣性力 (B)離心力 (C)加速力 (D)扭力

原始題號:0014912 題組:0 難易度:中

- (A) 196. a) 粉塵分離器(Particle sepsrator)通常都是打開的。
b) 粉塵分離器(Particle sepsrator)自動關閉的時機是當N1轉速增高到某一轉速時及滅火器手柄拉開時。
何項說明正確?
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014913 題組:0 難易度:易

(C) 197. a) 造成壓縮器損壞的原因為外物損傷與腐蝕。

b) 刻痕與刮痕會導致壓縮器葉片失去效用。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014914 題組:0 難易度:易

(B) 198. a) 一個污穢的壓縮器會導致一個低的操作溫度。

b) 流經引擎的氣流受阻時會導致失速與引擎熄火。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014915 題組:0 難易度:中

(C) 199. a) 為了加快引擎啟動時的加速時間，多數的軸式渦輪引擎使用了洩放瓣、洩放口或可調式定子組系統。

b) 這些系統於引擎加速時移除了渦輪的負載。

c) 所有的這些系統的操作，通常都是藉由燃油的調控與空氣壓力比值的方式來完成。

何項說明正確?

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014916 題組:0 難易度:易

(C) 200. a) 多數直昇機的引擎，裝置的是環式的並有回流特性的燃燒室。

b) 多數的直昇機於引擎啟動後會將點火動作停止。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014917 題組:0 難易度:中

(B) 201. 何項說明正確?

(A)注氣與注油在燃燒室開始點火之前就已經開始動作了。(B)注氣與點火在燃燒室開始注油之前就已經開始動作了。(C)點火與注油在燃燒室開始注氣之前就已經開始動作了。(D)沒有一個答案正確

原始題號:0014918 題組:0 難易度:中

(B) 202. a) 當集體桿拉高時，調速器(Governor)會感應到低速的情況，進而需要較少的燃油。

b) 當集體桿拉高時，調速器(Governor)會感應到低速的情況，進而需要較多的燃油。

c) 當集體桿拉高時，調速器(Governor)會感應到超速的情況，進而需要較多的燃油。

何項說明正確?

(A)a 正確 (B)b 正確 (C)c 正確 (D)沒有一個答案正確

原始題號:0014919 題組:0 難易度:易

(C) 203. a) 多數的點火系統都是高壓電容放電系統(High capacitance discharge systems)。

b) 許多點火系統為了避免熄火所造成的困擾而配有自動重新點火裝置。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014920 題組:0 難易度:易

(C) 204. 可調式進氣導片(Variable inlet guide vanes)的作用是用來改變進入壓縮器空氣的哪種特性?

(A)速度 (B)壓力 (C)攻角 (D)溫度

原始題號:0014921 題組:0 難易度:易

(C) 205. a) 直昇機的油門控制桿裝在扭轉握柄內(Twist grip)。

b) 扭轉握柄(Twist grip)的基本動作位置有關斷、地面慢車及全開。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014922 題組:0 難易度:易

(B) 206. TOT是什麼字的縮寫?

(A)Total Outlet Temperature (B)Turbine Outlet Temperature (C)True Outlet Temperature (D)沒有一個答案正確

原始題號:0014923 題組:0 難易度:中

(C) 207. a) 手動的燃油控制件 (FCU) 是由動力控制桿操控的。

b) 自動燃油控制的燃油行程設定，是根據動力需求的量來建立的。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014924 題組:0 難易度:中

(C) 208. a) 多數以渦輪驅動的直昇機都裝有引擎失效警告系統，這個系統於N1轉速失去作用時，會有指示燈與警告聲提供警示。

b) 渦輪的使用壽命是根據引擎的使用時間與引擎的使用次數作依準的。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014925 題組:0 難易度:中

(C) 209. a) 引擎與傳動箱之間的校準若不正確時，會減短兩者之間傳動軸的使用壽命。

b) 校準的方法通常是藉由調整引擎支架點的墊片厚度來完成的。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014926 題組:0 難易度:中

(C) 210. a) 使用手柄來做為調節N1轉速的直昇機，正常的情況下會有三種操作位置，此三種操作位置為: Ground idle, Flight idle and Full N1.

b) 在直軸式渦輪的直昇機，其集體桿與燃油控制之間並沒有連桿連結。

何項說明正確?

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014927 題組:0 難易度:易

(D) 211. 集體桿上的扭轉握柄(Twist grip)的功能有哪些?

a) 關斷瓣作用

b) 慢車速度調節

c) 全開自動動力調節

d) 緊急動力控制

(A)a, b和c正確 (B)b, c和d正確 (C)a, b和d正確 (D)a, b, c和d全正確

原始題號:0014928 題組:0 難易度:易

- (C) 212. a) 尾旋翼必須配有與主旋翼一樣的修正功能，此功能有變距(Pitch change)與葉片蹣動(Flapping)修正功能。
b) 尾旋翼葉片有正向與負向傾斜動作。
何項說明正確?
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014930 題組:0 難易度:中

- (A) 213. a) 由於振動的因素，尾旋翼傳動軸的校準是很重要的。
b) 尾旋翼齒輪箱可以用來增加或降低尾旋翼的轉速。
c) 主旋翼的轉速比尾旋翼來得快。
何項說明正確?
(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014931 題組:0 難易度:中

- (C) 214. a) 一個快要失效的軸承，其軸承組件總是會有溫度升高的現象。
b) 尾旋翼系的軸承失效，總是會有低頻振動的產生。
c) 密封式的傳動軸常使用溫度偵測條來作為警告的裝置。
何項說明正確?
(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014932 題組:0 難易度:中

- (A) 215. a) 在做檢查時，傳動軸的末端要特別留意插銷、鉚釘與接合的情況。
b) 尾旋翼傳動軸的失準將會使振動的情形降低。
c) 尾旋翼傳動軸的脫位檢查，要於傳動軸拆離直昇機時執行。
何項說明正確?
(A)僅a 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014933 題組:0 難易度:易

- (C) 216. a) 尾旋翼上有許多零件都有使用壽命的限制，其原因是因為有應力集中在這些零件的關係。
b) 新式直昇機的尾旋翼並不需要潤滑，其原因是使用了合成橡膠製與密封式的軸承。
何項說明正確?
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014934 題組:0 難易度:中

- (C) 217. a) 在機場上運作的尾旋翼需要執行靜態與動態的平衡。
b) 在尾旋翼上未經核可的位置，改變了原有位置的重量時，將會危及尾旋翼。
何項說明正確?
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014935 題組:0 難易度:易

- (C) 218. 尾旋翼所產生的振動問題，通常可以藉由操作哪個控制件來區隔此振動是由傳動系或變距系所造成的?
(A)集體桿 (B)迴旋桿 (C)腳踏板 (D)沒有一個答案正確

原始題號:0014936 題組:0 難易度:易

- (B) 219. a) 所有的靜態平衡必須在一個開放式的空間內完成，以期達到最精確的結果。
b) 靜態平衡越精確，所引發的動態平衡問題越少。
何項說明正確？
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014937 題組:0 難易度:易

- (C) 220. a) 直昇機的結構與固定翼的飛機不同的地方，在於他們的負載與應力的位置。
b) 直昇機構造，於同一點上，會同時有推力與昇力的作用。
何項說明正確？
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014938 題組:0 難易度:中

- (A) 221. 輪式與滑橇式起落架都各有優缺點，其優缺點為：
a) 輪式起落架比較難維修
b) 輪式起落架比較難於地面上執行操作 c) 滑
橇式起落架比較複雜
d) 滑橇式起落架比較容易於地面上執行操作
何項說明正確？
(A)僅 a 正確 (B)a 和 b 都正確 (C)a, b, c 和 d 全都正確 (D)a, b, c 和 d 全都不正確

原始題號:0014939 題組:0 難易度:易

- (D) 222. 尾衍連接了下列哪些組件：
a) 尾旋翼齒輪箱
b) 傳動軸
c) 直尾翅
d) 水平安定面
(A)a 和 c 都正確 (B)b, c和d正確 (C)a, b和d正確 (D)a, b, c和d全正確

原始題號:0014940 題組:0 難易度:易

- (C) 223. a)結構修理的相關訊息可在維修手冊或結構修理手冊內找得到。
b) 從事重大修理時，校準所使用的裝配架是必須要有的裝備。
何項說明正確？
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014941 題組:0 難易度:易

- (C) 224. a)重落地後要對結構做特別檢查。 b)
重落地也可能會造成旋轉組件損傷。
何項說明正確？
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014942 題組:0 難易度:易

- (A) 225. a)主旋翼急停的定義為旋翼在碰觸到外物後的突然減速。
b) 急停所產生的力量不會傳達到機身和旋轉組件。
何項說明正確？
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014943 題組:0 難易度:易

(C) 226. a) 貨物掛勾使用的時機，在當直昇機運載外部負載的時候。

b) 貨物吊掛可為手動釋放與電動釋放兩種。

何項說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014944 題組:0 難易度:易

(C) 227. a) 許多渦輪動力的直昇機於引擎啟動階段，配置有同時使用兩個鎳鎘電池的系統。

b) 多數於海上飛行的直昇機都裝配有浮筒以供緊急使用。

何項說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014945 題組:0 難易度:中

(C) 228. a) 昇力會隨著攻角的角度增加而增加，直到失速角度到達為止。

b) 昇力不會隨著空氣的密度狀況而改變。

氣密度受溫度、高度與溼度影響。

說明正確？

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

c) 空

何項

原始題號:0014946 題組:0 難易度:中

(C) 229. a) 直昇機可以在海平面高度滯空但不能在高高度滯空。

b) 冷天氣時用來維持昇力所需要的動力比熱天氣時要來得多。

c) 直昇機愈重在滯空時所需的

何項說明正確？

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014947 題組:0 難易度:易

(B) 230. a) 離心力是用來使直昇機移動到所需方向的力量。

b) 推力要比阻力大才能使直昇機移動。

說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

何項

原始題號:0014948 題組:0 難易度:中

(B) 231. a) 變距的動作是藉由操作迴旋控制來完成的。

b) 變距操作時，會使每片旋翼葉片的變距量都一致。

c) 每個單獨葉片的動作是藉由操作集體控制來完成的。

何項說明正確？

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014949 題組:0 難易度:中

(D) 232. a) 旋翼轉動時穿過空氣的速度在旋翼的所有部位都不一樣。

b) 旋翼轉動時最快速的位置在旋翼葉片的尖端，最慢速的位置在根部。

c) 葉片上愈慢速的部位，其攻角的角度配置會比愈快速的部位來得大。

何項說明正確？

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014950 題組:0 難易度:中

- (D) 233. a) 旋翼盤所產生的不同昇力被定義為不對稱的昇力(Dissymmetry of lift)。
b) 為了能改善不同昇力所造成的影響，有些旋翼系裝置了蹣動鉸鏈(Flapping Hinge)。
c) 配有兩片葉片的旋翼，總是使用蹣板式(Seesaw)旋翼系來改正不對稱的昇力問題。
何項說明正確?
(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014951 題組:0 難易度:中

- (A) 234. a) 地面效應(Ground effect)的發生是在當直昇機距離地面的範圍在旋翼直徑一半以內的距離時。
b) 發生地面效應(Ground effect)時，空氣密度會減少，同時會在直昇機下方形成一種空氣墊狀物(Air Cushion)的現象。
何項說明正確?
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014952 題組:0 難易度:中

- (C) 235. 翼面的失速是因為:
a) 不足的速度
b) 攻角角度太小
c) 機翼負載太重
(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014953 題組:0 難易度:中

- (C) 236. 當發生失速時要如何處置:
a) 減低前進速度
b) 增加旋翼的傾斜角
c) 增加旋翼的轉速
(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014954 題組:0 難易度:中

- (C) 237. a) 在正常的操作情形下，流經旋翼的氣流是往下的方向。
b) 在自動旋轉的情形下，流經旋翼的氣流是往上的方向。
何項說明正確?
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014955 題組:0 難易度:易

- (C) 238. a) 在自動旋轉時，旋翼的轉速必須要控制在適當的範圍。
b) 在自動旋轉時，最大的昇力值，可以藉由將迴旋往後方移動時所造成的效果獲得。
何項說明正確?
(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014956 題組:0 難易度:易

(D) 239. 地面共振的現象會因下列何者而加劇：

- a) 僅一個輪子落地
- b) 斜坡落地
- c) 平面的支架或洩氣的輪胎

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014957 題組:0 難易度:易

(D) 240. 用來控制直昇機飛行的基本控制有：

- a) 迴旋桿
- b) 集體桿
- c) 反扭力踏板

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014958 題組:0 難易度:易

(C) 241. a) 迴旋控制是用來使每片旋翼葉片的翼尖徑面偏斜(Tilt)的。

b) 偏斜是藉由改變每片旋翼葉片的傾斜角來完成的。

何項說明正確？

(A)僅 a 正確 (B)僅 b 正確 (C)a 和 b 都正確 (D)a 和 b 都不正確

原始題號:0014959 題組:0 難易度:中

(B) 242. a) 反扭力踏板改變的是尾旋翼的轉速。

b) 起飛時，尾旋翼要有最大的正向傾斜角。

c) 尾旋翼的傾斜(Pitch)除了有扭力改正的功用外，還可用來做為方向的控制。

何項說明正確？

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014960 題組:0 難易度:易

(D) 243. a) 維修手冊有兩種格式，一為航空運輸協會制定的系統(ATA system)，另一為廠家自制格式。

b) 在ATA系統格式中，每個飛機的系統，都會指定一個編號來做為手冊的章節分類。

c) ATA系統使用數字的方式來呈現各個分類，其分類包含了章節、系統與科目。

何項說明正確？

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014961 題組:0 難易度:易

(A) 244. a) 技術通報(Service Bulletins)包含了有關直昇機維修的額外維修訊息。

b) 技術通報通常是直接來自於現場實務問題或是為了改善這些問題所引生出來的解決方案。

c) 技術通報的重要性若是不嚴重時，往往會轉成適航指令。

何項說明正確？

(A)a 和 b 正確 (B)b 和 c 正確 (C)a 和 c 正確 (D)a, b 和 c 全都正確

原始題號:0014717 題組:0 難易度:中

- (A) 245. 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:0014718 題組:0 難易度:中

- (C) 246. 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:0014719 題組:0 難易度:易

- (C) 247. The pilot controls the air/fuel ratio with the
(A)throttle (B)manifold pressure (C)mixture control

原始題號:0014720 題組:0 難易度:易

- (A) 248. Detonation can be caused by
(A)"rich" mixture. (B)low engine temperatures. (C)using a lower grade of fuel than recommended.

原始題號:0014721 題組:0 難易度:易

- (B) 249. 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:0014722 題組:0 難易度:中

- (B) 250. Coning is caused by the combined forces of
(A)drag, weight, and translational lift. (B)lift and centrifugal force.
(C)flapping and centrifugal force.

原始題號:0014723 題組:0 難易度:中

- (B) 251. The forward speed of a rotorcraft is restricted primarily by
(A)dissymmetry of lift. (B)transverse flow effect. (C)high-frequency vibrations.

原始題號:0014724 題組:0 難易度:中

- (B) 252. When hovering, a helicopter tends to move in the direction of tail rotor thrust. this statement is
(A)True; the movement is called transverse tendency. (B)true; the movement is called translating tendency. (C>false; the movement is opposite the direction of tail rotor thrust, and is called translating tendency.

原始題號:0014725 題組:0 難易度:中

- (C) 253. The lift differential that exists between the advancing blade and the retreating blade is known as
(A)Coriolis effect. (B)translational lift. (C)dissymmetry of lift.

原始題號:0014726 題組:0 難易度:中

- (C) 254. Most helicopters, by design tend to drift to the right when hovering in a no-wind condition. this statement is
(A)false;helicopters have no tendency to drift, but will rotate in that direction
(B>true; the mast or cyclic pitch system of most helicopters is rigged forward, this with gyroscopic precession will overcome this tendency. (C>true; the mast or cyclic pitch system of most helicopters is rigged to the left to overcome this tendency.

原始題號:0014727 題組:0 難易度:易

- (B) 255. when a rotorcraft transitions from straight-and-level flight into a 30° bank while maintaining a constant altitude, the total lift force must
(A)increase and the load factor will increase. (B)increase and the load factor will decrease. (C)remain constant and the load factor will decrease.

原始題號:0014728 題組:0 難易度:易

- (B) 256. The main rotor blades of a fully-articulated rotor system can
(A)flap and feather collectively. (B)flap, drag, and feather independently. (C)feather independent-ly, but cannot flap or drag.

原始題號:0014729 題組:0 難易度:易

- (A) 257. What is the primary purpose of the clutch?
(A)It allows the engine to be started without driving the main rotor system.
(B)It provides disengagement of the engine from the rotor system for autorotation. (C)It transmits engine power to the main rotor, tail rotor, generator/ alternator, and other accessories.

原始題號:0014730 題組:0 難易度:易

- (C) 258. What is the primary purpose of the freewheeling unit?
(A)It allows the engine to be started without driving the main rotor system.
(B)It provides speed reduction between the engine, main rotor system, and tail rotor system. (C)It provides disengagement of the engine from the rotor system for autorotation purposes.

原始題號:0014731 題組:0 難易度:易

- (A) 259. The main rotor blades of a semi-rigid rotor system can
(A)flap and feather as a unit. (B)flap, drag, and feather independently. (C)feather independent-ly, but cannot flap or drag.

原始題號:0014732 題組:0 難易度:中

- (A) 260. The purpose of lead-lag(drag) hinges in a three-bladed, full articulated helicopter rotor system is to compensate for
(A)Coriolis effect. (B)dissymmetry of lift. (C)blade flapping tendency.

原始題號:0014733 題組:0 難易度:易

- (B) 261. The most unfavorable combination of conditions for rotorcraft performance is
(A)low density altitude, low gross weight, and calm wind. (B)high density altitude, high gross weight, and calm wind. (C)high density altitude, high gross weight, and strong wind.

原始題號:0014734 題組:0 難易度:易

- (A) 262. How does high density altitude affect rotorcraft performance?
(A)Engine and rotor efficiency is reduced. (B)Engine and rotor efficiency is increased. (C)It increases rotor drag, Which requires more power for normal flight.

原始題號:0014735 題組:0 難易度:易

- (B) 263. Abnormal helicopter vibrations in the low-frequency range are associated with which system or component?
(A)Tail rotor. (B)Main rotor. (C)Transmissi-on.

原始題號:0014736 題組:0 難易度:易

- (A) 264. A high-frequency vibration that suddenly occurs during flight could be an indication of a defective
(A)transmission. (B)freewheeling unit. (C)main rotor system.

原始題號:0014737 題組:0 難易度:易

- (C) 265. Ground resonance is more likely to occur with helicopters that are equipped with
(A)rigid rotor systems. (B)semi-rigid rotor systems. (C)fully articulated rotor systems

原始題號:0014738 題組:0 難易度:易

- (B) 266. If the RPM is low and the manifold pressure is high, what initial corrective action should be taken?
(A)Increase the throttle. (B)Lower the collective pitch. (C)Raise the collective pitch.

原始題號:0014739 題組:0 難易度:易

- (C) 267. During climbing flight, the manifold pressure is low and the RPM is high,. What initial corrective action should be taken?
(A)Increase the throttle. (B)Lower the collective pitch. (C)Raise the collective pitch.

原始題號:0014740 題組:0 難易度:易

- (A) 268. The most power will be required to hover over which surface?
(A)High grass. (B)Concrete ramp. (C)Rough/uneven ground.

原始題號:0014741 題組:0 難易度:易

- (B) 269. Which flight technique is recommended for use during hot weather?
(A)During takeoff, accelerate quickly into forward flight. (B)During takeoff, accelerate slowly into forward flight. (C)Use minimum allowable RPM and maximum allowable manifold pressure during all phases of flight.

原始題號:0014742 題組:0 難易度:易

- (B) 270. A pilot is hovering during calm wind conditions. The greatest amount of engine power will be required when
(A)ground effect exists. (B)making a left-pedal turn. (C)making a right-pedal turn.

原始題號:0014743 題組:0 難易度:易

- (C) 271. Which statement is true about an autorotative descent?
(A)Generally, only the cyclic control is used to make turns. (B)The pilot should use the collective pitch control to control the rate of descent. (C)The rotor RPM will tend to decrease if a tight turn is made with a heavily loaded helicopter.

原始題號:0014744 題組:0 難易度:易

- (C) 272. Using right pedal to assist a right turn during an autorotative descent will probably result in what actions?
(A)A decrease in rotor RPM, pitch up of the nose, decrease in sink rate, and increase in indicated airspeed. (B)An increase in rotor RPM, pitch up of the nose, decrease in sink rate, and increase in indicated airspeed. (C)An increase in rotor RPM, pitch down of the nose, increase in sink rate, and decrease in indicated airspeed.

原始題號:0014745 題組:0 難易度:易

- (B) 273. Using left pedal to assist a left turn during an autorotative descent will probably cause the rotor RPM to
(A)increase and the airspeed to decrease. (B)decrease and the aircraft nose to pitch down. (C)increase and the aircraft nose to pitch down.

原始題號:0014746 題組:0 難易度:易

- (A) 274. You are hovering during calm wind conditions and decide to make a right-pedal turn. In most helicopters equipped with reciprocating engines, the engine RPM will tend to
(A)increase. (B)decrease. (C)remain unaffected.

原始題號:0014747 題組:0 難易度:易

- (A) 275. When making an autorotation to touchdown, what action is most appropriate?
(A)A slightly nose-high attitude at touchdown is the proper procedure. (B)The skids should be in a longitudinally level attitude at touchdown. (C)Aft cyclic application after touchdown is desirable to help decrease ground run.

原始題號:0014748 題組:0 難易度:易

- (A) 276. Helicopter gross weight = 1,225 lb, Ambient temperature = 77°F, Determine the in-ground-effect hover ceiling.
(A)6,750 feet. (B)7,250 feet. (C)8,000 feet.

原始題號:0014749 題組:0 難易度:易

- (B) 277. Helicopter gross weight = 1,175 lb, Ambient temperature = 95°F, Determine the out-of-ground-effect hover ceiling.
(A) 5,000 feet. (B) 5,250 feet. (C) 6,250 feet.

原始題號:0014750 題組:0 難易度:易

- (B) 278. Departure is planned from a heliport that has a reported pressure altitude of 4,100 feet. What rate of climb could be expected in this helicopter if the ambient temperature is 90°F?
(A) 210 ft/min. (B) 250 ft/min. (C) 390 ft/min.

原始題號:0014751 題組:0 難易度:易

- (B) 279. Pressure altitude 4000 ft, Ambient temperature 80°F to clear a 50-foot obstacle, a jump takeoff would require
(A) more distance than a running takeoff. (B) less distance than a running takeoff.
(C) the same distance as a running takeoff.

原始題號:0014752 題組:0 難易度:易

- (C) 280. Pressure altitude 4,000 ft, Ambient temperature 80°F, The takeoff distance to clear a 50-foot obstacle is
(A) 1,225 feet for a jump takeoff. (B) 1,440 feet for a running takeoff. (C) less for a running takeoff than for a jump takeoff.

原始題號:0014753 題組:0 難易度:易

- (B) 281. Which maximum range factor decreases as weight decreases?
(A) Altitude. (B) Airspeeds (C) Angle of attack.

原始題號:0014754 題組:0 難易度:中

- (A) 282. 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:0014755 題組:0 難易度:中

- (C) 283. 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:0014756 題組:0 難易度:中

- (C) 284. 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:0014757 題組:0 難易度:中

- (A) 285. The mixture control can be adjusted, which
(A)prevents the fuel/air combination from becoming too rich at higher altitudes.
(B)weight of fuel and weight of air entering the cylinder. (C)prevents the fuel/air combination from becoming lean as the airplane climbs.

原始題號:0014758 題組:0 難易度:中

- (A) 286. The best power mixture is that fuel/air ratio at which
(A)cylinder head temperatures are the coolest. (B)the most power can be obtained for any given throttle setting. (C)a given power can be obtained with the highest manifold pressure or throttle setting.

原始題號:0014759 題組:0 難易度:中

- (C) 287. 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:0014760 題組:0 難易度:中

- (C) 288. Unless adjusted, the fuel/air mixtture 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:0014761 題組:0 難易度:中

- (A) 289. 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:0014762 題組:0 難易度:中

- (B) 290. 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:0014763 題組:0 難易度:中

- (A) 291. 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:0014764 題組:0 難易度:易

- (A) 292. 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:0014765 題組:0 難易度:中

- (C) 293. 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:0014766 題組:0 難易度:中

- (C) 294. 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:0014767 題組:0 難易度:易

- (C) 295. Detonation can be caused by
(A)a "rich" mixture. (B)low engine temperatures. (C)using a lower grade fuel than recommend-ed.

原始題號:0014768 題組:0 難易度:中

- (B) 296. For internal cooling, reciprocating aircraft engines are especially dependent on
(A)a properly functioning cowl flap augmentor. (B)the circulation of lubricating oil. (C)the proper freon/compressor output ratio.

原始題號:0014769 題組:0 難易度:易

- (B) 297. 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:0014770 題組:0 難易度:易

- (A) 298. 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:0014771 題組:0 難易度:易

- (C) 299. The primary purpose of the tail rotor system is to
(A)assist in making coordinated turns. (B)maintain heading during forward flight
(C)counteract the torque effect of the main rotor.

原始題號:0014772 題組:0 難易度:中

- (C) 300. Can the tail rotor produce thrust to the left?
(A)No, the right thrust can only be reduced, causing tail movement to the left.
(B)Yes,primari-ly so that hovering turns can be accomplished to the right.
(C)Yes,primari-ly to counteract the drag of the transmission during autorotation.

原始題號:0014773 題組:0 難易度:中

- (A) 301. How does high density altitude affect rotorcraft performance?
(A)Engine and rotor efficiency is reduced. (B)Engine and rotor efficiency is increased. (C)It increases rotor drag, which requires more power for normal flight.

原始題號:0014774 題組:0 難易度:中

- (C) 302. The proper action to initiate a quick stop is to apply
(A)forward cyclic, while raising the collective and applying right antitorque pedal. (B)aft cyclic, while raising the collective and applying left antitorque pedal. (C)aft cyclic, while lowering the collective and applying right antitorque pedal.

原始題號:0014775 題組:0 難易度:易

- (B) 303. During the flare portion of a power-off landing, the rotor RPM tends to
(A)remain constant. (B)increase initially. (C)decrease initially.

原始題號:0014776 題組:0 難易度:易

- (C) 304. Which would produce the slowest rotor RPM?
(A)A vertical descent with power. (B)A vertical descent without power.
(C)Pushing over after a steep climb.

原始題號:0014777 題組:0 難易度:易

- (B) 305. As altitude increases, the VNE of a helicopter will
(A)increase. (B)decrease. (C)remain the same.

原始題號:0014778 題組:0 難易度:易

- (B) 306. The antitorque system fails during cruising flight and a powered approach landing is commenced. If the helicopter yaws to the right just prior to touchdown , what could the pilot do to help swing the nose to the left?
(A)Increase the throttle. (B)Decrease the throttle. (C)Increase collective pitch.

原始題號:0014779 題組:0 難易度:易

- (B) 307. Should a helicopter pilot ever be concerned about ground resonance during takeoff?
(A)No, ground resonance occurs only during an autorotative touchdown. (B)Yes, although it is more likely to occur on landing, it can occur during takeoff.
(C)Yes, but only during slope takeoffs.

原始題號:0014780 題組:0 難易度:易

- (C) 308. When operating at high forward airspeed, retreating blade stall is more likely to occur under conditions of
(A)low gross weight, high density altitude, and smooth air. (B)high gross weight, low density altitude, and smooth air. (C)high gross weight, high density altitude and turbulent air.

原始題號:0014781 題組:0 難易度:易

- (C) 309. During a normal approach to a hover, the collective pitch control is used primarily to
(A)maintain RPM. (B)control the rate of closure. (C)control the angle of descent.

原始題號:0014782 題組:0 難易度:易

- (B) 310. When making a slope landing, the cyclic pitch control should be used to
(A)lower the downslope skid to the ground. (B)hold the upslope skid against the slope. (C)place the rotor disc parallel to the slope.

原始題號:0014783 題組:0 難易度:易

- (C) 311. What is the procedure for a slope landing?
(A)Use maximum RPM and maximum manifold pressure. (B)If the slope is 10° or less, the landing should be made perpendicular to the slope. (C)When parallel to the slope, slowly lower the upslope skid to the ground prior to lowering the down slope skid.

原始題號:0014784 題組:0 難易度:易

- (C) 312. Leaving the carburetor heat on while taking off
(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:0014785 題組:0 難易度:中

- (C) 313. If ground resonance is experienced during rotor spin-up, what action should you take?
(A)taxi to a smooth area. (B)make a normal takeoff immediately. (C)close the throttle and slowly raise the spin-up lever.

原始題號:0014786 題組:0 難易度:易

- (B) 314. If complete power failure should occur while cruising at altitude, the pilot should
(A)partially lower the collective pitch, close the throttle, then completely lower the collective pitch. (B)lower the collective pitch as necessary to maintain proper rotor RPM, and apply right pedal to correct for yaw. (C)close the throttle, lower the collective pitch to the full-down position, apply left pedal to correct for yaw, and establish a normal power-off glide.

原始題號:0014787 題組:0 難易度:易

- (A)³¹⁵ Select the true statement concerning gyroplane taxi procedures.
(A)avoid abrupt control movements when blades are turning. (B)the cyclic stick should be held in the neutral position at all times. (C)the cyclic stick should be held slightly aft of neutral at all times

原始題號:0014788 題組:0 難易度:中

- (B)³¹⁶ Which is true with respect to vortex circulation? Not vortex circulation.
(A)helicopters generate downwash turbulence only. (B)the vortex strength is greatest when the generating aircraft is heavy, and slow. (C)when vortex circulation sinks in to ground effect, it generates little danger.

原始題號:0014789 題組:0 難易度:易

- (A)³¹⁷ 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:0014790 題組:0 難易度:易

- (B)³¹⁸ To determine pressure altitude prior to takeoff, the altimeter should be set to
(A)the current altimeter setting. (B)29.92" Hg and the altimeter indication noted (C)the field elevation and the pressure reading in the altimeter setting window noted.

原始題號:0014791 題組:0 難易度:易

- (B)³¹⁹ What altimeter setting is required when operating an aircraft at 18,000 feet MSL?
(A)Current reported altimeter setting of a station along the route. (B)29.92 " Hg. (C)Altimeter setting at the departure or destination airport.

原始題號:0014792 題組:0 難易度:中

- (B)³²⁰ 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:0014793 題組:0 難易度:易

- (B)³²¹ If a standard rate turn is maintained, how long would it take to turn 360°?
(A)1 minute. (B)2 minutes. (C)3 minutes.

原始題號:0014794 題組:0 難易度:易

- (A)³²² Which is required equipment for powered aircraft during VFR night flights?
(A)Anticollision light system. (B)Gyroscopic direction indicator. (C)Gyroscopic bank-and-pitch indicator.

原始題號:0014795 題組:0 難易度:易

- (A) 323. If not equipped with required position lights, an aircraft must terminate flight
(A)at sunset. (B)30 minutes after sunset. (C)1 hour after sunset.

原始題號:0014796 題組:0 難易度:易

- (A) 324. If an aircraft is not equipped with an electrical or anticollision light system,
no person may operate that aircraft
(A)after sunset to sunrise. (B)after dark. (C)1 hour after sunset.

原始題號:0014797 題組:0 難易度:易

- (C) 325. Aircraft maintenance records must include the current status of the
(A)applicable airworthiness certificate. (B)annual inspections performed on the
engine. (C)life-limited parts of each airframe, engine, propeller, rotor, and
appliance.

原始題號:0014798 題組:0 難易度:易

- (C) 326. A new maintenance record being used for an aircraft engine rebuilt by the
manufacturer must include previous
(A)operating hours of the engine. (B)annual inspections performed on the engine
(C)changes as required by Airworthiness Directives.

原始題號:0014799 題組:0 難易度:易

- (C) 327. Assuring compliance with an Airworthiness Directive is the responsibility of
the
(A)pilot in command and the FAA certificated mechanic assigned to that aircraft.
(B)pilot in command of the aircraft. (C)owner or operator of that aircraft.

原始題號:0014800 題組:0 難易度:易

- (A) 328. When approaching to land at an airport, without an operating control tower,
in Class G airspace, a helicopter pilot should
(A)avoid the flow of fixed-wing aircraft. (B)make all turns to the left, unless
otherwise indicated. (C)enter and fly a traffic pattern at 800 feet AGL.

原始題號:0014801 題組:0 難易度:中

- (C) 329. When a dashed blue circle surrounds an airport on a sectional aeronautical chart,
it will depict the boundary of
(A)special VFR airspace. (B)Class B airspace. (C)Class D airspace.

原始題號:0014802 題組:0 難易度:中

- (A) 330. To use VHF/DF facilities for assistance in locating your position, you must have
an operative VHF
(A)transmitter and receiver. (B)transmitter and receiver, and an operative ADF
receiver. (C)transmitter and receiver, and an operative VOR receiver.

原始題號:0014803 題組:0 難易度:易

- (A) 331. Pilots are required to have the anti-collision light system operating
(A)anytime an engine is in operation. (B)anytime the pilot is in the cockpit.
(C)during all types of operations, both day and night.

原始題號:0014804 題組:0 難易度:易

- (B) 332. The "taxiway ending" marker
(A)indicates taxiway does not continue. (B)identifies area where aircraft are prohibited. (C)provides general taxiing direction to named taxiway.

原始題號:0014805 題組:0 難易度:易

- (A) 333. When planing a night cross-country flight, a pilot should check for
(A)availability and status of en route and destination airport lighting systems
(B)red en route course lights. (C)location of rotating light beacons.

原始題號:0014806 題組:0 難易度:易

- (C) 334. Light beacons producing red flashes indicate
(A)end of runway warning areas. (B)instructions for the pilot to remain clear of an airport traffic pattern and continue circling. (C)obstructions or areas considered hazardous to aerial navigation.

原始題號:0014807 題組:0 難易度:易

- (A) 335. When planning for an emergency landing at night, one of the primary considerations should include
(A)selecting a landing area close to public access, if possible.
(B)landing without flaps to ensure a nose-high landing attitude at touchdown.
(C)turning off all electrical switches to save battery power for the landing.

原始題號:0014808 題組:0 難易度:易

- (B) 336. After experiencing a powerplant failure at night, one of the primary considerations should include
(A)turning off all electrical switches to save battery power for the landing.
(B)planning the emergency approach and landing to an unlighted portion of an area. (C)maneuvering to, and landing on a lighted highway or road.

原始題號:0014809 題組:0 難易度:易

- (C) 337. When planning a night cross-country flight, a pilot should check for the availability and status of
(A)all VORs to be used en route. (B)airport rotating light beacons.
(C)destination airport lighting systems.

原始題號:0014810 題組:0 難易度:易

- (C) 338. To best overcome the effects of spatial disorientation, a pilot should
(A)rely on body sensations. (B)increase the breathing rate. (C)rely on aircraft instrument indications.

原始題號:0014811 題組:0 難易度:易

- (C) 339. Which is true with respect to a high-or low-pressure system?
(A)A high-pressure area or ridge is an area of rising air. (B)A low-pressure area or trough is an area of descending air. (C)A high-pressure area or ridge is an area of descending air.

原始題號:0014812 題組:0 難易度:中

- (B) 340. Which is true with respect to a high-or low-pressure system?
(A)A high-pressure area or ridge is an area of rising air. (B)A low-pressure area or trough is an area of descending air. (C)Both high-and low-pressure areas are characterized by descending air.

原始題號:0014813 題組:0 難易度:中

- (B) 341. When flying into a low-pressure area in the Northern Hemisphere, the wind direction and velocity will be from the
(A)left and decreasing. (B)left and increasing. (C)right and decreasing.

原始題號:0014814 題組:0 難易度:中

- (A) 342. Which would decrease the stability of an air mass?
(A)Warming from below. (B)Cooling from below. (C)Decrease in water vapor.

原始題號:0014815 題組:0 難易度:中

- (B) 343. Which would increase the stability of an air mass?
(A)Warming from below. (B)Cooling from below. (C)Decrease in water vapor.

原始題號:0014816 題組:0 難易度:中

- (C) 344. The conditions necessary for the formation of cumulonimbus clouds are a lifting action and
(A)unstable, dry air. (B)stable, moist air. (C)unstable, moist air.

原始題號:0014817 題組:0 難易度:中

- (C) 345. Which are characteristics of a cold air mass moving over a warm surface?
(A)Cumuliform clouds, turbulence, and poor visibility. (B)Cumuliform clouds, turbulence, and good visibility. (C)Stratiform clouds, smooth air, and poor visibility.

原始題號:0014818 題組:0 難易度:易

- (A) 346. If airborne radar is indicating an extremely intense thunderstorm echo, this thunderstorm should be avoided by a distance of at least
(A)20 miles. (B)10 miles. (C)5 miles.

原始題號:0014819 題組:0 難易度:易

- (A) 347. Which statement is true regarding squall lines?
(A)They are always associated with cold fronts. (B)They are slow in forming, but rapid in movement. (C)They are nonfrontal and often contain severe, steady-state thunderstorms.

原始題號:0014820 題組:0 難易度:易

- (C) 348. What is an important characteristic of wind shear?
(A)It is present at only lower levels and exists in a horizontal direction. (B)It is present at any level and exists in only a vertical direction. (C)It can be present at any level and can exist in both a horizontal and vertical direction.

原始題號:0014821 題組:0 難易度:易

- (A) 349. Winds at 3,000 feet AGL ...30 kts, Surface winds.....Calm while on approach for landing under clear skies with convective turbulence a few hours after sunrise, one should
(A)increase approach airspeed slightly above normal to avoid stalling. (B)keep the approach airspeed at or slightly below normal to compensate for floating. (C)not alter the approach airspeed these conditions are nearly ideal.

原始題號:0014822 題組:0 難易度:易

- (A) 350. During departure , under conditions of suspected low-level wind shear, a sudden decrease in headwind will cause
(A)a loss in airspeed equal to the decrease in wind velocity. (B)a gain in airspeed equal to the decrease in wind velocity. (C)no change in airspeed, but groundspeed will decrease.

原始題號:0014823 題組:0 難易度:易

- (C) 351. Which provides a graphic display of both VFR and IFR weather?
(A)Surface Weather Map. (B)Radar Summary Chart. (C)Weather Depiction Chart.

原始題號:0014824 題組:0 難易度:易

- (C) 352. 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:0014825 題組:0 難易度:中

- (B) 353. Weight A: 155 pounds at 45 inches aft of datum , Weight B:165 pounds at 145 inches aft of datum , Weight C: 95 pounds at 185 inches aft of datum , Based on this information, where would the CG be located aft of datum?
(A)86.0 inches. (B)116.8 inches. (C)125.0 inches.

原始題號:0014826 題組:0 難易度:中

- (B) 354. A helicopter is loaded in such a manner that the CG is located forward of the allowable CG limit. Which is true about this situation?
(A)This condition would become less hazardous as fuel is consumed if the fuel tank is located aft of the rotor mast. (B)In case of engine failure and the resulting autorotation, sufficient cyclic control may not be available to flare properly to land. (C)Should the aircraft pitchup during cruise flight due to gusty winds, there may not be enough forward cyclic control available to lower the nose.

原始題號:0014827 題組:0 難易度:易

- (C) 355. 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:0014828 題組:0 難易度:易

- (C) 356. What are the standard temperature and pressure values for sea level?
(A)15°C and 29.92 Hg. (B)59°F and 1013.2 Hg. (C)15°C and 29.92 Mb.

原始題號:0014829 題組:0 難易度:中

- (B) 357. What type approach should be made to a pinnacle under conditions of relatively high wind and turbulence?
(A)A normal approach. (B)A steeper-than-normal approach.
(C)A shallower-than-normal approach.

原始題號:0014830 題組:0 難易度:易

- (B) 358. The pilot of helicopter is often located on which hand side of the helicopter
(A)Left (B)Right (C)Center (D)No answer is correct.

原始題號:0014831 題組:0 難易度:易

- (D) 359. Certain precaution must be observed when moving helicopters with a towbar which include:
a) sufficient help must be available to view all parts of the helicopter.
b) towing must be accomplished smoothly with no jerky motion.
c) all rotating components must be secured.
d) towbar turning radii must be observed.
Which answer is correct?
(A)Only a, b and c are correct. (B)Only b, c and d are correct. (C)Only a, c and d are correct. (D)The a, b, c and d are all correct.

原始題號:0014832 題組:0 難易度:中

- (C) 360. Large components on the helicopter are usually provided with what device for the removal of the component.
(A)Jack points (B)Supporting points (C)Lifting points (D)No device required.

原始題號:0014833 題組:0 難易度:易

- (D) 361. Bearings are used to carry which loads :
(A)Thrust loads (B)Rotational loads (C)Oscillating loads (D)All of above three.

原始題號:0014834 題組:0 難易度:中

- (B) 362. Which is probably the greatest contributing factor to the life of the bearing?
(A)Material of the bearing. (B)Lubrication of the bearing. (C)Type of the bearing
(D)Location of the bearing on helicopter.

原始題號:0014835 題組:0 難易度:中

- (C) 363. Discoloration of the bearing is always an indication of excessive heat. this may be caused by
(A)overspeed. (B)improper installation. (C)a lack of lubrication. (D)abnormal vibration in high frequency range.

原始題號:0014836 題組:0 難易度:中

- (D) 364. Gears are used to :
a) transmit power, b) change direction, c) change speed.
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014837 題組:0 難易度:中

- (D) 365. The main rotor system is exposed to many stresses during operation which include:
a) centrifugal, b) vibration, c) twisting, d) flexing
(A)Only a, b and c are correct. (B)Only b, c and d are correct. (C)Only a, c and d are correct. (D)The a,b,c and d are all correct.

原始題號:0014838 題組:0 難易度:易

- (B) 366. Today the most widely used rotors are the :
(A)rigid and semi- rigid systems (B)semi-rigid and fully articulating systems
(C)rigid and fully articulating systems (D)No answer is correct.

原始題號:0014839 題組:0 難易度:中

- (B) 367. The rotor system utilizing the seesaw or flapping axis system is known as
(A)rigid rotor (B)semi-rigid rotor (C)fully articulating rotor (D)rigid and fully articulating systems

原始題號:0014840 題組:0 難易度:中

- (C) 368. Lead and lag action is controlled by the use of
(A)an actuator (B)a spring linkage (C)a dampener (D)lead-lag hinge

原始題號:0014841 題組:0 難易度:易

- (D) 369. Rotor blades may be made of :
a) wood, b) metal, c) composite
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014842 題組:0 難易度:中

- (C) 370. When the rotor blade is repainted, what procedure will be necessary on the rotor system?
(A)Power trim (B)Pitch trim (C)Rebalance (D)No procedure required

原始題號:0014843 題組:0 難易度:中

- (A) 371. Compare the damage between the root and the outboard portion of blade.
(A)Damage which is near the root of the blade is more critical than at the outboard portion of the blade. (B)Damage which is near the outboard portion of the blade is more critical than at the root of the blade. (C)Damage which is near the root of the blade is as the same as at the outboard portion of the blade. (D)Damage which is near the root of the blade is less critical than at the outboard portion of the blade.

原始題號:0014844 題組:0 難易度:中

- (B) 372. The rotor head is highly stressed unit and often contains what items:
(A)expensive items (B)time change items (C)balance items (D)repair items

原始題號:0014845 題組:0 難易度:中

- (D) 373. Special inspections of the rotor system are required in the event of
a) overspeed, b) sudden stoppage, c) hard landings.
(A)Only c is correct. (B)Both b and c are correct. (C)Both a and c are correct.
(D)All a, b and c are correct.

原始題號:0014846 題組:0 難易度:中

- (B) 374. When removing a rotor head, one procedure is often necessary on the pitch change in order to prevent damage during removal. The procedure is :
(A)Protected by special cover. (B)Locked by special holders. (C)Lubricated by special lubricant. (D)No procedure required

原始題號:0014847 題組:0 難易度:易

- (C) 375. Removed rotor blades should always be stored in where in order to prevent damage during storage.
(A)ground (B)long table (C)blade racks (D)All answers are correct

原始題號:0014848 題組:0 難易度:中

- (A) 376. Blade alignment established the correct relationship of which ?
(A)the center of gravity and the center of pressure (B)the center of gravity and the center of blade spanwise (C)the center of gravity and the center of blade chordwise (D)No answer is correct.

原始題號:0014849 題組:0 難易度:易

- (C) 377. Semi-rigid rotors will require which static balance.
(A)Only chordwise static balance. (B)Only spanwise static balance. (C)Both chordwise and spanwise static balance. (D)No static balance required.

原始題號:0014850 題組:0 難易度:中

- (B) 378. On some rotor systems, chordwise balance is obtained by moving one blade to which way of the alignment point.
(A)fore (B)aft (C)inboard (D)outboard

原始題號:0014851 題組:0 難易度:中

- (C) 379. What is the major contributor to component deterioration?
(A)Overspeed (B)Overload (C)Excessive vibration (D)Imbalance

原始題號:0014852 題組:0 難易度:中

(D)³⁸⁰ What condition is the cause of vibration on rotation components?

(A) Overspeed (B) Overload (C) Improper installation (D) Imbalance

原始題號:0014853 題組:0 難易度:易

(D)³⁸¹. In helicopters, vibrations are classified into which groups?

a) very low frequency

b) low frequency

c) medium frequency

d) high frequency

e) very high frequency vibrations.

(A) Only a, b and c are correct. (B) Only b, c and d are correct. (C) Only b, c,

d and e are correct. (D) Only a, b, c and d are correct.

原始題號:0014854 題組:0 難易度:易

(c)³⁸² In nature, rotor vibration may either be:

(A)vertical (B)lateral (C)vertical and lateral (D)No answer is correct.

原始題號:0014855 題組:0 難易度:中

(c) ³⁸³ Lateral vibration is usually associated with which condition of the rotor?

(A) Overspeed (B) Overload (C) Imbalance (D) Lack of lubrication

原始題號:0014856 題組:0 難易度:中

(D)³⁸⁴ The methods which may be used for tracking are:

a) stick method

b) flag method

c) light reflector method

d) pre-track method

e) electronic strobe method

(A) a, b and c are correct (B) a, b, c and d are correct (C) a, b, c and e are correct

(D) a, b, c, d and e are all correct

原始題號:0014857 題組:0 難易度:易

(C) 385 During initial tracking, the trim tabs should be placed in which position?

(A) Upward (B) Downward (C) Neutral (D) No answer is correct.

原始題號:0014858 題組:0 難易度:中

(C) ³⁸⁶. Most fully articulated rotors use dampeners to control movement about which axis of the rotor blades.

(A)Vertical (B)Horizontal (C)Lead lag (D)Longitudinal

原始題號:0014859 題組:0 難易度:易

(C) 387. A faulty dampener will cause which condition of the rotor by the blade seeking the wrong position.

(A) Overspeed (B) Overload (C) Imbalance (D) Overheat

原始題號:0014860 題組:0 難易度:易

(B)³⁸⁸ If the autorotation speed is in what condition, the retreating blade stall may occur.

(A)too slow (B)too fast (C)overspeed (D)overload

原始題號:0014861 題組:0 難易度:易

- (A)³⁸⁹ If the autorotation speed is in what condition, the lift developed will not support the helicopter.
(A)too slow (B)too fast (C)overspeed (D)overload

原始題號:0014862 題組:0 難易度:中

- (B)³⁹⁰ The autorotation rpm is affected by :
- | | |
|-------------------------------------|-------------------------|
| a) a gross weight of the helicopter | b) power rpm |
| c) density altitude | d) temperature altitude |
- (A)Both a and b are correct. (B)Both a and c are correct. (C)Both b and c are correct. (D)Both c and d are correct.

原始題號:0014863 題組:0 難易度:易

- (C) The mast usually absorbs which kinds of load?
(A) torsional load (B) tensional load (C) torsional and tensional load (D) The mast doesn't absorb any kind of load.

原始題號:0014864 題組:0 難易度:易

- (A)³⁹² The stabilizer bar required which kind of balance in order to insure a smooth operation.
(A)Static balance (B)Dynamic balance (C)Static and Dynamic balance (D)No balance required

原始題號:0014865 題組:0 難易度:易

- (A)³⁹³ A dampener which is in what condition will result in an over stable helicopter with delayed control response.
(A)too soft (B)too hard (C)neutral (D)any condition

原始題號:0014866 題組:0 難易度:易

- (B)³⁹⁴ A dampener which is in what condition will result in an unstable helicopter with delayed control response.
(A)too soft (B)too hard (C)neutral (D)any condition

原始題號:0014867 題組:0 難易度:易

- (C) ³⁹⁵ Cyclic control movement require the rotor to tilt: a) Left, b) Right, c) Fore, d) Aft, e) Up, f) Down
(A) Both a and b are correct. (B) Both c and d are correct. (C) a, b, c and d are correct. (D) a, b, e and f are correct.

原始題號:0014868 題組:0 難易度:易

- (B)³⁹⁶ On reciprocating engine helicopters, the collective has a twist grip which controls:
(A)the direction of helicopter (B)the throttle of engine (C)the altitude of helicopter (D)the flight speed of helicopter

原始題號:0014869 題組:0 難易度:易

(C) 397. Many of the newer filtering systems have what device to indicate when the filter is bypassing.

- (A)Pressure indicators (B)Pressure gauges (C)Warning buttons/indicators
(D)Warning lights

原始題號:0014870 題組:0 難易度:易

(C) 398. High usage of hydraulic fluid is an indication of what condition?

- (A)Overheat (B)Overpressure (C)Leakage (D)Normal

原始題號:0014871 題組:0 難易度:中

(B) 399. a) Before filters changing, the system must be checked under pressure for filter leaks.

b) When filters are changed, the system must be checked under pressure for filters leaks.

c) When filters are changed, the system must be checked without pressure for filters leaks.

Which description is correct?

- (A)a is correct (B)b is correct (C)c is correct (D)No answer is correct.

原始題號:0014872 題組:0 難易度:易

(D) 400. On most helicopters, the cyclic control system is rigged with the cyclic stick in which position.

- (A)Fore end (B)Aft end (C)Either left end or right end (D)Neutral

原始題號:0014873 題組:0 難易度:中

(B) 401. Rotors cannot operate at engine rpm because of :

a) Materials of the rotors

b) Rotor tip speed

c) Retreating blade stall

(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014874 題組:0 難易度:易

(A) 402. a) Transmissions are used to reduce engine speed in order to be compatible with rotor speeds.

b) Transmissions are used to increase engine speed in order to be compatible with rotor speeds.

c) Transmissions are used to reduce rotor speed in order to be compatible with engine speeds.

d) Transmissions are used to increase rotor speed in order to be compatible with engine speeds.

Which statement is correct?

- (A)a is correct (B)b is correct (C)c is correct (D)d is correct

原始題號:0014875 題組:0 難易度:易

- (B) 403. A drive shaft system is used on some helicopters between which parts of the helicopter. When drive shafts are used, they often incorporate a clutch with the drive shaft.
(A)Engine and Rotor (B)Engine and Transmission (C)Transmission and Rotor (D)No answer is correct.

原始題號:0014876 題組:0 難易度:中

- (B) 404. What device is necessary to unload the engine during starting because of the forces required to move the rotor.
(A)The free wheeling unit (B)The clutch (C)The pitch change unit (D)The swash plate assembly

原始題號:0014877 題組:0 難易度:中

- (B) 405. a) The free wheeling unit allows the transmission to drive the rotor but prevent the rotor from driving the engine.
b) The free wheeling unit allows the engine to drive the transmission but prevent the rotor from driving the engine.
c) The free wheeling unit allows the rotor to drive the transmission but prevent the rotor from driving the engine.
d) The free wheeling unit allows the engine to drive the transmission but prevent the transmission from driving the rotor.
Which statement is correct?
(A)a is correct (B)b is correct (C)c is correct (D)d is correct

原始題號:0014878 題組:0 難易度:易

- (B) 406. The operation of the free wheeling unit is always :
(A)Manual (B)Automatic (C)Manual or Automatic (D)Manual and Automatic

原始題號:0014879 題組:0 難易度:易

- (B) 407. Regardless of the location of the free wheeling unit, which rotor must rotate during autorotation.
(A)Main rotor (B)Tail rotor (C)Main and Tail rotor (D)No answer is correct.

原始題號:0014880 題組:0 難易度:中

- (C) 408. In the hydro mechanical clutch, which unit makes a mechanical coupling when rotor rpm is obtained.
(A)Transmission unit (B)Drive unit (C)Free wheeling unit (D)No answer is correct.

原始題號:0014881 題組:0 難易度:中

- (C) 409. a) The sprag unit is the most common free wheeling unit in use.
b) The sprag unit allows movement to be transmitted in both direction.
c) The oil for lubrication of the sprag unit is supplied by the transmission.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014882 題組:0 難易度:中

- (A) 410. Some helicopters have a rotor brake located between which part of the helicopter?
(A)Engine and Transmission (B)Transmission and Main Rotor (C)Transmission and Tail Rotor (D)Engine and Rotor

原始題號:0014883 題組:0 難易度:易

- (D) 411. The rotor brake is used to?
(A)Stop the rotor before engine start. (B)Stop the rotor before engine shutdown
(C)Stop the rotor after engine start. (D)Stop the rotor after engine shutdown.

原始題號:0014884 題組:0 難易度:中

- (B) 412. Most operators limit the use of the rotor brake because of what factors of the brake unit?
(A)Temperature (B)Wear (C)Material (D)All answers are correct

原始題號:0014885 題組:0 難易度:中

- (B) 413. a) Without the rotor brake, the inertial of the main rotor will continue to move the main rotor after engine starting.
b) Brake units are normally attached to the input to the transmission.
c) The brake may be either hydraulically or manually operated.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014886 題組:0 難易度:中

- (A) 414. a) During starting, the engine rpm will be ahead of the rotor rpm until the clutch is fully engaged.
b) During starting, the rotor rpm will be ahead of the engine rpm until the clutch is fully engaged.
c) During starting, the engine rpm will be ahead of the rotor rpm until the clutch is fully disengaged.
d) During starting, the rotor rpm will be ahead of the engine rpm until the clutch is fully disengaged.
Which statement is correct?
(A)a is correct (B)b is correct (C)c is correct (D)d is correct

原始題號:0014887 題組:0 難易度:中

- (D) 415. a) The free wheeling unit is inoperative, the helicopter would have problems with autorotation.
b) The wheeling unit is checked during pre-flight run up with the use of the tachometer.
c) Some free wheeling units carry their oil supply which requires servicing.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014888 題組:0 難易度:易

- (C) 416. a) Transmissions are usually mounted of semi-flexible mounts in order to dampen vibration.
b) In addition to the requirement of the mount to have flexibility, it must also carry the weight of the helicopter and absorb the torsioinal loads of the rotor mount.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014889 題組:0 難易度:中

- (A) 417. a) The threaded rod ends of the sprag mount are used to align the mast.
b) Incorrect adjustment of the sprag system can affect the ground characteristics and cause abnormal vibrations.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014890 題組:0 難易度:中

- (D) 418. a) The inner ring of the free wheeling unit acts as a free gear while the engine is driving the rotor.
b) When the rotor is driving, the inner ring acts as a fixed gear.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014891 題組:0 難易度:易

- (C) 419. a) Transmissions built today separate the engine oil system from the transmission oil system.
b) Oil temperature is always a good indicator of the condition of the transmission.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014892 題組:0 難易度:易

(D) 420. The accessory drive gear turns the following:

- a) transmission oil pump
- b) hydraulic pump
- c) rotor tachometer.

(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014893 題組:0 難易度:中

(C) 421. a) Oil from the pressure pump goes to the oil cooler.

b) Oil bypasses the oil cooler when the oil temperature is too high.

c) The oil cooler blower is powered by the main drive shaft.

Which statement is correct?

(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014894 題組:0 難易度:易

(D) 422. a) The operator's manual is sometimes referred to as the flight manual.

b) The first section of the operator's manual contains the helicopter operating limitations.

c) The second section of the operating manual would contain procedures.

Which statement is correct?

(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014895 題組:0 難易度:中

(D) 423. a) Increasing the maximum speed is one method of increasing the horsepower.

b) All reciprocating engines require a fan for cooling.

c) Main rotor usually operate at a constant rpm.

Which statement is correct?

(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014896 題組:0 難易度:易

(A) 424. a) On helicopter installations, the engine power is controlled in order to maintain the rotor rpm.

b) Low rpm for idle is required on helicopter installations.

Which statement is correct?

(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014897 題組:0 難易度:易

(D) 425. Vibration from the cooling fans is usually felt as a buzz because of ?

(A)Very low frequency (B)Low frequency (C)Medium frequency (D)High frequency

原始題號:0014898 題組:0 難易度:中

- (C) 426. a) The twist grip of collective is similar to those used on motorcycles except the action is in the opposite direction.
b) The decrease position of the twist grip is towards the thumb as the hand grips the collective.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014899 題組:0 難易度:易

- (A) 427. a) Replacement of the engine will require rerigging the correlation system.
b) Collective rigging will not affect the correlation rigging.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014900 題組:0 難易度:易

- (B) 428. a) The fine adjustments are made to the correlation rigging before the test flight.
b) The fine adjustments are made to the correlation rigging after the test flight.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014901 題組:0 難易度:易

- (C) 429. The turbines used in helicopters are referred to as:
a) Turbo jet
b) Turbo fan
c) Turbo shaft
(A)a is correct (B)b is correct (C)c is correct (D)No answer is correct.

原始題號:0014902 題組:0 難易度:易

- (C) 430. a) The turboshaft engines usually contain a gear reduction to reduce turbine speed.
b) Turboshaft engines are further classified as direct shaft turbines or free shaft turbines.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014903 題組:0 難易度:中

- (A) 431. a) The free turbine delivers power from a turbine not connected to the compressor.
b) The direct drive turbine engine turns at the same speed as the turbine because they share a common shaft.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014904 題組:0 難易度:中

- (A) 432. a) Most of the helicopter turbines, today, use a compressor which is a combination of axial and centrifugal compressors.
b) The first portion of the compressor will be centrifugal and the last stage is axial.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014905 題組:0 難易度:易

- (C) 433. a) Each stage of the axial compressor is made up of one stator and one rotor.
b) The rotor increases the velocity of the airflow and the stator develops the pressure.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014906 題組:0 難易度:易

- (A) 434. a) Air entering the combustor is used to support combustion and cooling purposes.
b) Air entering the combustor is used to support combustion purposes only.
c) Air entering the combustor is used to support cooling purposes only.
Which statement is correct?
(A)a is correct (B)b is correct (C)c is correct (D)No answer is correct.

原始題號:0014907 題組:0 難易度:中

- (C) 435. a) Power is measured by the manifold pressure gauge on reciprocating engines.
b) The power output of turbine is measured by a torquemeter on turboshaft engines.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014908 題組:0 難易度:易

- (A) 436. a) On free turbines, two tachometers are used: one reads compressor speed and the other reads power turbine speed.
b) The tachometers used on turboshaft engines often reads in percent of minimum rpm.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014909 題組:0 難易度:易

- (A) 437. a) Free turbines often operate with different readings on the N1 and N2 tachometers.
b) During ground operation, the compressor tachometer will read higher than the power turbine tachometer.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014910 題組:0 難易度:中

- (D) 438. The EGT gauges is carefully monitored during:
a) Starting
b) Takeoffs with heavy loads
c) High ambient temperatures
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014911 題組:0 難易度:中

- (B) 439. Most helicopters require a particle separator on the inlet of the turbine engine. The particles move to the outside of the filter by which force?
(A)Inertial (B)Centrifugal (C)Accelerated (D)Torsional

原始題號:0014912 題組:0 難易度:中

- (A) 440. a) The particle separator is usually open.
b) The particle separator automatically closes when the N1 rpm increases above certain percent of rpm and fire extinguisher handle is pulled.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014913 題組:0 難易度:易

- (C) 441. a) Damage to the compressor may be the result of foreign object damage and erosion.
b) Nicks and scratched can lead to compressor blade failure.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014914 題組:0 難易度:易

- (B) 442. a) A dirty compressor will result in low operating temperatures.
b) Blockage of the airflow to the engine can result in stall and flame out of the engine.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014915 題組:0 難易度:中

- (C) 443. a) To assist in acceleration time, most turbo shaft engines use one of the bleed valves, bleed ports and variable stators systems.
b) These systems unload the turbine during acceleration.
c) All of these systems are usually operated by the fuel control and air pressure ratio.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014916 題組:0 難易度:易

- (C) 444. a) Most of the helicopter engines utilize an annular combustor with reverse flow.
b) Most turbine engines deactivate the ignition once the engine is running.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014917 題組:0 難易度:中

- (B) 445. Which statement is correct?
(A)The airflow and fuel flow system are in operation prior to ignite to the combustor. (B)The airflow and ignition system are in operation prior to fuel flow to the combustor. (C)The ignition and fuel flow system are in operation prior to air flow to the combustor. (D)No answer is correct.

原始題號:0014918 題組:0 難易度:中

- (B) 446. a) When collective is raised, the governor senses an under speed condition which demands less fuel.
b) When collective is raised, the governor senses an under speed condition which demands more fuel
c) When collective is raised, the governor senses an over speed condition which demands more fuel.
Which statement is correct?
(A)a is correct (B)b is correct (C)c is correct (D)No answer is correct.

原始題號:0014919 題組:0 難易度:易

- (C) 447. a) Most ignition systems are high capacitance discharge systems.
b) Many ignition systems have an automatic relight device in case of flame out.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014920 題組:0 難易度:易

- (C) 448. The purpose of the variable inlet guide vanes is to change what characteristic of the air entering the compressor?
(A)Speed (B)Pressure (C)Angle of attack (D)Temperature

原始題號:0014921 題組:0 難易度:易

- (C) 449. a) The fuel control lever of helicopter is positioned by the twist grip.
b) The basic positions of the twist grip are cut-off, ground idle and full open.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014922 題組:0 難易度:易

- (B) 450. TOT is the abbreviation for?
(A)Total Outlet Temperature (B)Turbine Outlet Temperature (C)True Outlet Temperature (D)No answer is correct.

原始題號:0014923 題組:0 難易度:中

- (C) 451. a) The manual fuel control unit is controlled by the power control lever.
b) The automatic fuel control established the fuel schedule in response to the power requirements.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014924 題組:0 難易度:中

- (C) 452. a) Many turbine powered helicopter have an engine out warning system. this system usually has a light and horn when N1 deteriorates.
b) The life of a turbine is based on the hours of operation and the cycles of the engines.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014925 題組:0 難易度:中

(C) 453. a) Misalignment between the engine and transmission will shorten the short shaft life.
b) Alignment is usually accomplished by shimming the engine mount.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014926 題組:0 難易度:中

(C)⁴⁵⁴ a) Helicopters using a lever arrangement for N1 speed normally have three operating positions. These are : Ground idle, Flight idle and Full N1.
b) On direct shaft turbines, no linkage connects the collective and fuel control.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014927 題組:0 難易度:易

(D)⁴⁵⁵. The functions of the twist grip of the collective are:
 a) shut off valve b) idle speed
 c) full automatic power d) emergency power control
 (A)a, b and c are correct (B)b, c and d are correct (C)a, b and d are correct (D)a,
 b, c and d are all correct

原始題號:0014928 題組:0 難易度:易

(C)⁴⁵⁶ a) Tail rotors must use some of the same features which are found in main rotors which include pitch change and blade flapping.
b) Tail rotor blades have negative and positive pitch.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014930 題組:0 難易度:中

(A)⁴⁵⁷ a) Alignment of the tail rotor shafting is important because of vibration.
b) The tail rotor gear box may be used to increase or decrease speed for the tail rotor.
c) The main rotor always turns faster than the tail rotor.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014931 題組:0 難易度:中

- (C) 458. a) The impending failure of a bearing will always be indicated by a rise in temperature of the bearing package.
b) Bearing failures of the tail rotor system are always accompanied with low frequency vibration.
c) Enclosed shafts often use heat sensitive stickers as a warning device.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014932 題組:0 難易度:中

- (A) 459. a) Particular attention to the ends of the drive shafts should be taken during inspection to check the pins, rivets and bonding.
b) Misalignment of the tail rotor shafting will cause vibration levels to decrease.
c) Runout checked of the tail rotor shafting is done with the shafting removed from the helicopter.
Which statement is correct?
(A)Only a is correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014933 題組:0 難易度:易

- (C) 460. a) Many parts of the tail rotor are assigned a finite life due to the stresses placed on them.
b) Tail rotor on newer helicopters often require no lubrication due to the use of electrometric and sealed bearings.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014934 題組:0 難易度:中

- (C) 461. a) The tail rotor will require static balance and dynamic balance in the field.
b) The placement of weight in other than authorized locations on the tail rotor would be dangerous.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014935 題組:0 難易度:易

- (C) 462. The vibration problem of the tail rotor can often be isolated to the drive system or pitch change system by moving which control?
(A)Collective (B)Cyclic (C)Pedals (D)No answer is correct.

原始題號:0014936 題組:0 難易度:易

- (B) 463. a) All static balancing must be accomplished in an opened room in order to insure accuracy.
b) The greater accuracy in the static balance, the less dynamic balance problems will occur.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014937 題組:0 難易度:易

- (C) 464. a) The structure of helicopters varies from fixed wing aircraft because of the load and stress locations.
b) The helicopter has both the thrust and lift acting on the same point.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014938 題組:0 難易度:中

- (A) 465. The wheel and skid gear have advantages and disadvantages which are:
a) wheel gear is difficult to maintain.
b) wheel gear is difficult to ground handle.
c) skid gear is more complex.
d) skid gear simplifies ground handling.
Which statement is correct?
(A)Only a is correct. (B)Both a and b are correct. (C)All a, b, c and d are correct
(D)All a, b, c and d are incorrect.

原始題號:0014939 題組:0 難易度:易

- (D) 466. The tail boom has the following items attached:
a) tail rotor gearbox.
b) drive shafting.
c) vertical fin.
d) horizontal stabilizer.
(A)Both a and c are correct (B)b, c and d are correct (C)a, b and d are correct
(D)a, b, c and d are all correct

原始題號:0014940 題組:0 難易度:易

- (C) 467. a) Structure repair information may be found either in the maintenance manual or in a structural repair manual.
b) Jigs are often necessary for major repairs because of alignment.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014941 題組:0 難易度:易

- (C) 468. a) Hard landings often require special inspections of the structure.
b) Hard landings may also result in damage to rotating components.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014942 題組:0 難易度:易

- (A) 469. a) Sudden stoppage of the main rotor is defined as sudden deceleration of the rotor after contact with an object.
b) Sudden stoppage forces can not be transmitted throughout the airframe and rotating components.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014943 題組:0 難易度:易

- (C) 470. a) Cargo hooks are used when external loads are carried by the helicopter.
b) The cargo hoist has both a manual and electric release.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014944 題組:0 難易度:易

- (C) 471. a) Many turbine powered helicopters utilize a system in which two Ni-Ca batteries are used during starting.
b) Most helicopters which make over water flights will be equipped with floats for emergencies.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014945 題組:0 難易度:中

- (C) 472. a) The lift is increased with the angle of attack until the stall angle is reached.
b) Lift will not vary with the density of the air.
c) Air density is affected by temperature, altitude and humidity.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014946 題組:0 難易度:中

- (C) 473. a) A helicopter is often capable of hover at sea level but not at high altitude.
b) On a cold day more power is required to maintain lift than on a hot day.
c) The heavier the helicopters, the greater will be the pitch angle and power requirement to hover.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014947 題組:0 難易度:易

- (B) 474. a) Centrifugal is the force moving the helicopter in the desired direction.
b) Thrust must be greater than drag in order to move the helicopter.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014948 題組:0 難易度:中

- (B) 475. a) Pitch change may be accomplished by the movement of the cyclic control.
b) The movement of pitch change changes the pitch of each rotor blade as equal amount.
c) The movement of each individual blade is accomplished by the collective control.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014949 題組:0 難易度:中

- (D) 476. a) The speed at which the rotor moves through the air is not the same on all parts of the rotor.
b) The fastest portion of the rotor is at the tip of the rotor blade and the slowest portion is at the root.
c) The slower portion of the blade has a greater angle of attack built into the blade than the faster portions.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014950 題組:0 難易度:中

- (D) 477. a) The difference in lift produced by the rotor disc is referred to as dissymmetry of lift.
b) In order to correct for the difference in lift, the rotor must be provided with a flapping hinge on some rotor systems.
c) Two bladed rotors often use the seesaw systems to correct for dissymmetry of lift.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014951 題組:0 難易度:中

- (A) 478. a) Ground effect occurs when the helicopter is within one half of the rotor diameter from the ground.
b) During ground effect, the air becomes less dense and forms an air cushion under the helicopter.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014952 題組:0 難易度:中

- (C) 479. An airfoil may stall due to:
a) insufficient airspeed
b) too small of an angle of attack
c) heavy wing load
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)The a, b and c are all correct.

原始題號:0014953 題組:0 難易度:中

- (C) 480. When a stall is experienced, one should :
a) reduce forward speed
b) increase pitch of the rotor
c) increase rotor speed
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)The a, b and c are all correct.

原始題號:0014954 題組:0 難易度:中

- (C) 481. a) During normal operation, the airflow through the rotor is in a downward direction.
b) During autorotation, the airflow is in an upward direction.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014955 題組:0 難易度:易

- (C) 482. a) During autorotation, the rotor rpm must be controlled.
b) During autorotation, the greatest amount of lift may be produced in a flare with the cyclic moved aft.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014956 題組:0 難易度:易

- (D) 483. Ground resonance can be aggravated by :
a) one wheel landings
b) slope landings
c) a flat strut or tire
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)The a, b and c are all correct.

原始題號:0014957 題組:0 難易度:易

- (D) 484. The basic controls that are used to control flight of helicopter are :
a) cyclic
b) collective
c) anti-torque pedals
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)The a, b and c are all correct.

原始題號:0014958 題組:0 難易度:易

- (C) 485. a) The cyclic control is used to tilt the tip path plane of each individual rotor blade.
b) The tilt is accomplished by changing the pitch of each individual rotor blade.
Which statement is correct?
(A)Only a is correct. (B)Only b is correct. (C)Both a and b are correct. (D)Both a and b are incorrect.

原始題號:0014959 題組:0 難易度:中

- (B) 486. a) The anti-torque pedals change the rpm of the tail rotor.
b) The highest positive pitch of the tail rotor is required during take off.
c) In addition to torque correction, the tail rotor pitch is used for directional control.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014960 題組:0 難易度:易

- (D) 487. a) The maintenance manuals are written in two basic formats which are: ATA system and the manufacturer's format.
b) Using the ATA system, each system is assigned a number representing a section of the manual.
c) The ATA system uses a digit system to cover each Chapter, System and Subject.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.

原始題號:0014961 題組:0 難易度:易

- (A) 488. a) Service Bulletins contain additional information regarding the maintenance of the helicopter.
b) Service Bulletins are usually the direct result of field problems or improvements as required by such problems.
c) Service Bulletins often become Airworthiness Directives if the matter is considered not serious.
Which statement is correct?
(A)Both a and b are correct. (B)Both b and c are correct. (C)Both a and c are correct. (D)All a, b and c are correct.