

TEMA:	0959	IA Chapter 6	
COD_PREG:	PREGUNTA:		RPTA:
0176	An aircraft originally certificated in one of the standard categories has been altered and is now certificated in the restricted category. Airworthiness Directives (ADs) subsequently issued for the aircraft, if applicable,		A
OPCION A:	must be complied with.		
OPCION B:	may be complied with as a matter of good practice.		
OPCION C:	must be complied with only if additionally specifying restricted category.		
0177	Airworthiness Directives (AD) may be issued to aircraft with which of the following categories?		C
OPCION A:	Experimental and Primary.		
OPCION B:	Restricted and Standard.		
OPCION C:	Both A and B.		
0178	The applicability statement of an airworthiness directive (AD) states "applies to Martin model 50 aircraft." This statement would cause the AD to apply to which of the following classification of aircraft?		A
OPCION A:	Any Martin model 50 aircraft.		
OPCION B:	Only Martin model 50 aircraft with standard airworthiness certificates.		
OPCION C:	Any Martin model 50 aircraft, except those with experimental certificates.		
0179	Airworthiness Directives have amendment numbers. That number is considered an amendment to what?		C
OPCION A:	The Type Certificate Data Sheet.		
OPCION B:	The Airworthiness Certificate.		
OPCION C:	RAP Part 39.		
0180	14 CFR Section 91.417(a)(2)(v), requires the revision dates of applicable airworthiness directives (AD) be made part of the aircraft records. How is the revision date determined? The revision date is		B
OPCION A:	listed in the opening sentence of all ADs.		
OPCION B:	the effective date of the latest amendment.		
OPCION C:	noted in the AD number, such as, AD 90-05-01 R2.		
0181	Where do you find the revision date of an AD?		B
OPCION A:	At the beginning of the AD.		
OPCION B:	In the last sentence of the body of the AD.		
OPCION C:	It will be located beside the Amendment Number of the AD.		
0182	Who is responsible for keeping and maintaining the maintenance records for an aircraft operated under 14 CFR Part 91?		C
OPCION A:	The pilot who files the aircraft.		
OPCION B:	The maintenance personnel who does the work.		
OPCION C:	The owner or operator of the aircraft.		
0183	How long should an DGAC Form -A-337 for a major alteration to an airframe be retained?		B
OPCION A:	For one year or until the work is repeated or superceded.		
OPCION B:	It becomes a part of the permanent maintenance records and it is transferred with the aircraft when it is sold.		
OPCION C:	For two years or until the work is repeated or superceded.		
0184	When a repair station makes a major repair, the repair may be approved for return to service on a DGAC Form-A-337, customer's work order, or tag attached to the product. 14 CFR Part 43, Appendix B, requires a maintenance release statement be printed on which of these documents?		B
OPCION A:	DGAC Form 337.		
OPCION B:	Tag attached to the product.		
OPCION C:	Both A and B.		
0185	When completing DGAC Form -A-337, item 1, information for make, model, and serial number should be taken from the		B
OPCION A:	aircraft logbook.		
OPCION B:	aircraft manufacturer's identification plate.		
OPCION C:	aircraft Form 8050-3, Certificate of Aircraft Registration.		

0186	Data used for approving major repairs must be DGAC approved prior to its use for that purpose. Which of the following is approved data for major repairs?	A
OPCION A:	Airworthiness Directive.	
OPCION B:	Previously approved DGAC Form -A-337 for a like model aircraft.	
OPCION C:	Supplemental type certificate data.	
0187	Major alteration data may come from various sources however, in each case the data must	C
OPCION A:	be manufacturer-approved.	
OPCION B:	result from engineering authorization.	
OPCION C:	be traceable to an approved source.	
0188	When considering major repairs, data presented in an advisory circular (AC) is	A
OPCION A:	acceptable to the Administrator if so stated in the text of the AC.	
OPCION B:	approved by the Administrator.	
OPCION C:	acceptable to the Administrator.	
0189	As the holder of an inspection authorization, you have just completed an inspection of a major repair by an A&P mechanic on a small aircraft. The repair was found to be airworthy and eligible for return to service. The maintenance record contains a properly completed DGAC Form-A- 337. The signature of the A&P mechanic on the 337 constitutes	B
OPCION A:	approval for return to service.	
OPCION B:	conformity to approved data.	
OPCION C:	airworthiness of the repair.	
0190	A signature by a DGAC airworthiness inspector in block 3 of DGAC Form -A-337 indicates	A
OPCION A:	approval of data.	
OPCION B:	approval for return to service.	
OPCION C:	conformity of the work performed.	
0191	The completion and signing of block 6 (conformity statement) of DGAC Form -A-337 indicates	C
OPCION A:	DGAC approval of the work only.	
OPCION B:	agency approval for return to service.	
OPCION C:	the work was accomplished to DGAC-approved data.	
0192	The approval of non-previously approved data described in item 8 (Description of Work Accomplished) of DGAC Form-A-337 is indicated by	B
OPCION A:	marking of the approved box and signature in item 7 (Approval for Return to Service) of the DGAC Form 337.	
OPCION B:	an approval statement and signature in item 3 (For DGAC Use Only) of the DGAC Form 337.	
OPCION C:	signature of Authorized Individual in item 6 (Conformity Statement) of the DGAC Form 337.	
0193	A statement and signature of a DGAC Representative in item 3 (For DGAC Use Only) of DGAC Form-A-337 indicates	A
OPCION A:	approval of data to accomplish the work.	
OPCION B:	approval for return to service.	
OPCION C:	conformity of work performed.	
0194	When submitting a DGAC Form-A-337 to the DGAC, using non-previously approved data, which item on the form should be left blank?	B
OPCION A:	Item 8....."Description of Wrok Accomplished"	
OPCION B:	Item 7....."Approval For Return to Service"	
OPCION C:	Item 6....."Conformity Statement"	
0195	What is the maximum permissible free play of an elevator "full-span" trim tab? Given: trim tab chord = 4.5 inches	C
OPCION A:	.140	
OPCION B:	.090	
OPCION C:	.045	

0196 What is the maximum permissible free play of the elevator trim tab?

B

Given: Elevator span (length) = 5 ft.

Trim tab span (length) = 1 ft.

Trim tab chord = 3 inches.

OPCION A: .040

OPCION B: .060

OPCION C: .020

0197 Which of the following would be an excessive amount of free play of an elevator "full span" trim tab?

A

Given: Trim tab chord = 4.5 inches.

OPCION A: .045

OPCION B: .060

OPCION C: .020

0198 If a piece of metal is bent at 135 degree open-angle bend, the metal would have a bend angle of

B

OPCION A: 90°

OPCION B: 45°

OPCION C: 35°

0199 If a piece of metal is bent to 45 degrees close-angle bend, the metal would have a bend angle of

B

OPCION A: 90°

OPCION B: 135°

OPCION C: 155°

0200 How much metal is used in a 90° bend in 0.064-inch 2024-T aluminum alloy sheet using a 3/16-inch bend radius?

B

OPCION A: 0.250 inch.

OPCION B: 0.340 inch.

OPCION C: 0.312 inch.

0201 What would be the flat layout dimension (before bending dimension) of a U-shaped channel, 1" x 5" x 1", 2024-T6, .064 thick, using minimum bend radius?

C

OPCION A: 7.0

OPCION B: 6.28

OPCION C: 6.68

0202 Determine the location of the second sight line of a U-shaped channel, 1" x 5" x 1", 2024-T6, .064 thickness using minimum bend radius.

C

OPCION A: 6"

OPCION B: 5.45"

OPCION C: 5.77"

0203 How far from the mold line of a piece of 0.051-inch aluminum alloy should the jaws of the brake be set back if the bend is 120° and the bend radius is 3/16-inch (0.1875)?

C

OPCION A: 0.238 inch

OPCION B: 1.732 inch

OPCION C: 0.413 inch

0204 What is the diameter of an AN470AD4-4 rivet?

B

OPCION A: 4/16 (1/4)

OPCION B: 4/32 (1/8)

OPCION C: 4/8 (1/2)

0205 A sheet metal repair is to be made using two pieces of .040 inch aluminum riveted together. All rivet holes are drilled for 3/32 inch rivets. The length of the rivets to be used will be

B

OPCION A: 1/8 inch

OPCION B: 1/4 inch

OPCION C: 5/16 inch

0206 A sheet metal repair is to be made using two pieces of .0625 inch aluminum riveted together. All rivet holes are drilled for 1/8 inch rivets. The length of the rivets to be used will be

C

OPCION A: 5/32 inch
OPCION B: 3/16 inch
OPCION C: 5/16 inch

0207 What rivet should be selected to join two sheets of .032 and .020 aluminum?

B

OPCION A: AN470AD 4-3
OPCION B: AN470AD 4-4
OPCION C: AN470AD 5-3

0208 What rivets should be selected to join two sheets of .032 aluminum?

B

OPCION A: MS20425D 4-3
OPCION B: MS20470AD 4-4
OPCION C: MS20455DD 5-3

0209 What is the dimension of the shop head of an AN470AD4-4 rivet?

A

OPCION A: .0625 (thick), .1875 (wide)
OPCION B: .1875 (thick), .0625 (wide)
OPCION C: .0525 (thick), .1785 (wide)

0210 During a sheet metal repair, a row of 2017 rivets installed by the aircraft manufacturer was replaced by an equal number of 2117 rivets of the same diameter by the person making the repairs. Would you, as an IA, approve the repair if it is otherwise eligible for return to service?

B

OPCION A: Yes, the strength of 2117 rivets is greater than that of 2017 rivets.
OPCION B: No, the strength of 2117 rivets is less than that of 2017 rivets.
OPCION C: Yes, the strength of 2117 rivets is equal to that of 2017 rivets (2117 being the recommended replacement for 2017)

0211 Brazing of steel joints in aircraft primary structural members may be acceptable under certain conditions. What is the most important consideration in brazing a primary structural member?

B

OPCION A: The brazing alloy used is the same as the original.
OPCION B: Brazing was the original method of construction.
OPCION C: The steel is not heated until it loses its heat treating

0212 Repairs to tubular engine mounts may be repaired by using a larger diameter replacement tube telescoped over the stub of the original member and welded in place. How is the replacement tube preferably cut?

B

OPCION A: Diagonally cut at 45°.
OPCION B: Fishmouth cut at 30°.
OPCION C: Perpendicular cut at 90°.

0213 A lower horizontal stabilizer streamlined brace is to be repaired by welding. The brace size is 1-1/4 inch. The repair should be accomplished using which of the following materials?

B

OPCION A: A round insert tube of the same material, one gauge thicker than the original streamlined tube and a minimum of 5.01 inches
OPCION B: An outside sleeve of at least the same gauge with a minimum length of 9.128 inches.
OPCION C: An inside sleeve of the same streamlined tubing as original with a maximum insert length of 6.43 inches.

0214 A major repair to a structural component is presented to you for inspection and approval. You find that a number of rivets were installed in place of several spot welds that had been opened during the repair. With regard to the replacement of the spot welds with rivets, the repair would

B

OPCION A: require 50 percent more rivets than the original number of welds.
OPCION B: require specific approval by an authorized representative of the DGAC
OPCION C: not be acceptable; spot welds may not be rejoined using rivets.

0215 What is considered an acceptable radius for a 90-degree bend using 0.064-inch thick aluminum alloy 2024-T3?

A

OPCION A: 3 to 5 times sheet thickness (3 x 0.064 = 0.192)
OPCION B: 6 to 8 times sheet thickness (6 x 0.064 = 0.384)
OPCION C: 9 to 10 times sheet thickness (9 x 0.064 = 0.576)

0216	Using minimum bend radius, which of the following would require the most material for a 90 - degree bend? Given : Bend Allowance = $2 \left(R + \frac{1}{2}T \right)$ 4	C
OPCION A:	2024-T3, .032 thick	
OPCION B:	5052-H32, .016 thick	
OPCION C:	7075-T6, .032 thick	
0217	What is the minimum bend radius for 0.064 inch thick 7075-T6 aluminum alloy?	A
OPCION A:	0.250 inch	
OPCION B:	0.187 inch	
OPCION C:	0.312 inch	
0218	What strength rating of a rivet do you use when joining two pieces of sheet metal?	C
OPCION A:	rivets equal to the strength of the metal	
OPCION B:	rivets slightly greater than the strength of the metal	
OPCION C:	rivets slightly less than the strength of the metal	
0219	A sheet metal repair is presented to you for inspection. The repair involves a splice of bare 2024-T3 sheet aluminum .032-inches thick using a single lap sheet joint and joined with 3/32 -inch 2117-AD protruding-head rivets. How many rivets per inch of splice width are required?	B
OPCION A:	2.9.	
OPCION B:	8.3.	
OPCION C:	11.1.	
0220	A sheet metal repair is presented to you for inspection. The repair involves a splice on an intermediate frame using a single-lap joint, 2017 ALCLAD sheet aluminum, 0.040-inch thick with 1/8-inch 2117-AD protruding-head rivets. What is the minimum number of rivets per inch required for the splice?	A
OPCION A:	3.7.	
OPCION B:	4.0.	
OPCION C:	6.2.	
0221	A sheet metal repair is presented to you for inspection. The repair was to a single-lap sheet joint of 5052-H-14 sheet aluminum .091-inches thick. The repair involved the replacement of 2117-AD protruding-head rivets with AN-3 bolts. How many bolts should be installed per inch of width?	A
OPCION A:	2.4	
OPCION B:	3.2	
OPCION C:	4.0	
0222	A sheet metal repair is presented to you for inspection. The repair involves the installation of four bolts in place of the required number of 2117-AD protruding-head rivets for a single lap joint splice in 5052-h14 sheet aluminum .064-inches thick. If the repair was otherwise eligible for return to service, how would you proceed?	A
OPCION A:	Disapprove the repair, bolts may not be used to replace rivets in this thickness of aluminum sheet.	
OPCION B:	Approve the repair, the substitution of the rivets with the bolts exceeds the strength of the rivets.	
OPCION C:	Disapprove the repair, the number of bolts per inch of width is too few.	
0223	Delamination and debonding in composite structures can be detected by which of the following methods?	A
OPCION A:	coin tap test	
OPCION B:	visual inspection	
OPCION C:	Both A and B	
0224	Corrosion under paint that looks "worm-like" is	B
OPCION A:	intergranular	
OPCION B:	filiform	
OPCION C:	fretting	
0225	Cracks and other flaws within composite structure materials can be detected by which of the following methods?	B
OPCION A:	Coin tap test	
OPCION B:	Ultrasonic inspection	
OPCION C:	Both A and B	

0226	Applying zinc chromate primer to an aluminum surface has what effect?	B
OPCION A:	It prevents further corrosion by insulating the surface against electrolytic action	
OPCION B:	It forms an organic layer on the surface	
OPCION C:	It causes the aluminum alloy core to corrode rapidly	
0227	Which of the following abrasives could not be used to remove corrosion from aluminum alloys?	B
OPCION A:	Aluminum oxide	
OPCION B:	Silicon Carbide	
OPCION C:	Garnet	
0228	The formation of an oxide film on the surface of aluminum has what effect?	A
OPCION A:	The film insulates the aluminum from any electrolyte (gas or liquid), and will not itself further react with the oxygen	
OPCION B:	A porous or interrupted film is produced and the metal will continue to react with the oxygen in the air until the metal is completely eaten away.	
OPCION C:	It has no effect on the aluminum surface.	
0229	Which of the following materials, once oxidized, corrodes further?	A
OPCION A:	Iron	
OPCION B:	Aluminum	
OPCION C:	Both A and B	
0230	The formation of red rust on a steel surface has what effect?	B
OPCION A:	It forms a film that acts as a protective coating on the steel surface	
OPCION B:	Its presence actually promotes additional attack by attracting moisture from the air, acting as a catalyst to promote additional corrosion.	
OPCION C:	It has no effect on the steel surface	
0231	The formation of red rust on which of the following surfaces would actually promote additional attack by attracting moisture from the air and acting as a catalyst to promote additional corrosion?	B
OPCION A:	Aluminum	
OPCION B:	Steel	
OPCION C:	Magnesium	
0232	As the holder of an IA, you are inspecting a major repair to an aircraft where the work was accomplished using previously approved data based on the manufacturer's structure repair manual. However, the person making the repair deviated from the data. This was done by substituting a row of 24 AN470-4 rivets that attaches the rudder skin to the rudder ribs with 24 mechanically-locking blind rivets. In view of this change to the repair, what action would you take?	A
OPCION A:	Approve the repair, the use of the blind rivets would be a minor deviation by itself.	
OPCION B:	Reject the repair, the use of the blind rivets would be a major repair by itself.	
OPCION C:	Require additional approval of the rivet substitution using AC 43.13-1A for the repair.	
0233	Close-tolerance (AN-173 through AN -186) bolts are used in high performance aircraft in applications where the bolted joint is subject to severe load reversals and vibration. Which of the following bolts may be substituted for close-tolerance bolts?	A
OPCION A:	No substitutions may be made	
OPCION B:	AN-3 through AN-20 Hex-head bolts	
OPCION C:	AN-21 through AN-36 Clevis bolts	
0234	You have been asked to inspect a major repair which involves the fabrication and replacement of a 3/32-inch 7x7 control cable. The cable is fabricated using 3/32-inch AN667 swaged terminal ends. What should you use to check the diameter of the terminal?	C
OPCION A:	Go/No-Go gauge	
OPCION B:	Micrometer	
OPCION C:	Either A or B	
0235	When inspecting turnbuckles, what is the maximum number of threads that may be exposed on either side of the turnbuckle-barrel?	B

OPCION A: 2
OPCION B: 3
OPCION C: 6

0236 You have been asked to inspect a major repair which involves the fabrication and replacement of a 3/32-inch 7x7 control cable. The cable is fabricated using 3/32-inch AN667 swaged terminal ends. What is the diameter of a properly swaged terminal of this size? A

OPCION A: .190.
OPCION B: .250.
OPCION C: .500.

0237 What type of wrap would you consider acceptable when using .040-inch stainless steel safety wire to safety turnbuckles on 5/32 cable? B

OPCION A: Single wrap
OPCION B: Double wrap
OPCION C: .040-inch stainless steel safety wire is not approved to safety turnbuckles on 5/32-inch cable

0238 A turnbuckle on a 5/32 cable, safetied with a single wrap of stainless steel wire, must have wire of at least what diameter? C

OPCION A: .030.
OPCION B: .040.
OPCION C: .057.

0239 A hole is drilled to .3750. What size bolt is required to fit this hole? C

OPCION A: AN4.
OPCION B: AN5.
OPCION C: AN6.

0240 A hole is drilled to .18750. What size bolt is required to fit this hole? C

OPCION A: AN5.
OPCION B: AN4.
OPCION C: AN3.

0241 Turnbuckles must have a minimum of how many turns of safety wire wrapping? B

OPCION A: 3.
OPCION B: 4.
OPCION C: 5.

0242 What is the maximum differential pressure allowed when performing a compression check on a reciprocating engine? B

OPCION A: 30%
OPCION B: 25%
OPCION C: 20%

0243 A proposed airframe alteration will require a section of MIL-H-8788-10 hydraulic hose to flex through 60° of travel. The system will operate at 210° centigrade and 1,200 psi. What is the minimum bend radius for this installation? C

OPCION A: 3-1/4 inches
OPCION B: 5-1/2 inches
OPCION C: 7-3/4 inches

0244 You are inspecting an installation involving the use of MIL-H-8794-5 hose. The system operates at a maximum of 1,000 psi and 210° temperature. The hose must travel through a flexing range of 60 degrees. The minimum bend radii to which the hose may be subjected is B

OPCION A: 1.8-inch minimum bend radii
OPCION B: 2.08-inch minimum bend radii
OPCION C: 3.37-inch minimum bend radii

0245 Where is the datum located on a single-engine rotorcraft certificated under 14 CFR Part 27? C

OPCION A: Tip of rotor
OPCION B: Plane of rotor

OPCION C: Anywhere the manufacturer determines it to be		
0246	For airplanes that do not have an approved aircraft flight manual, equipment required by the certification regulation to be on the airplane during calculation of the certificated empty weight, may be found in which document?	A
OPCION A: Manufacturer's equipment list.		
OPCION B: Type Certificate Data Sheets		
OPCION C: Master minimum equipment list		
0247	What is the minimum bend radius that can be used on a 666-5 Teflon hose that will operate with 1,100 psi pressure?	B
OPCION A: 1 inch		
OPCION B: 1-1/2 inches		
OPCION C: 1-3/4 inches		
0248	During an annual inspection, the pilot's seatbelt is found to be in a questionable condition. The belt is identified on the label as TSO-C22 but does not show the TSO rating. The owner wishes to have the belt tested rather than replaced. At what tensile load should the belt be tested?	B
OPCION A: 1,250 pounds		
OPCION B: 1,500 pounds		
OPCION C: 1,750 pounds		
0249	You are inspecting an installation involving the use of Mil-H-8794-5 hydraulic hose. The system operates at a maximum of 2000 PSI and 210° temperature. The hose must travel through a flexing range of 90°. The minimum bend radii to which the hose may be subjected is	B
OPCION A: 2.75-inch minimum bend radii		
OPCION B: 3.24-inch minimum bend radii		
OPCION C: 6.50-inch minimum bend radii		
0250	When a non-flex hose angle increases, what happens to the bend radius?	C
OPCION A: increases		
OPCION B: decreases		
OPCION C: remains constant		
0251	What is the relationship of the bend radius of a MIL-H-8794-5 hose operating at 3,000 psi with a 90-degree flexing range, compared to the same hose at maximum operating psi with no flexing? The flexing bend radius	A
OPCION A: increases		
OPCION B: decreases		
OPCION C: remains constant		
0252	Which -5 hose has a larger minimum bend radius at 3,000 psi with a 90-degree flexing range?	B
OPCION A: Non-flex hose		
OPCION B: Flexible hose		
OPCION C: Minimum bend radius would be the same for nonflex and flexible hoses		
0253	When computing weight and balance, the empty weight includes the weight of the airframe, engine (s) and all items of operating equipment permanently installed. Empty weight also includes	A
OPCION A: the unusable fuel, hydraulic fluid, and undrainable oil or, in some aircraft all of the oil.		
OPCION B: all usable fuel, maximum oil, hydraulic fluid, but does not include the weight of pilot, passengers, or baggage		
OPCION C: all usable fuel and oil, but does not include any radio equipment or instruments that were installed by someone other than the manufacturer		
0254	What determines whether the value of the moment is preceded by a plus (+) or a minus (-) sign in aircraft weight and balance?	B
OPCION A: The moment of the weight in reference to the datum.		
OPCION B: The result of a weight being added or removed and the location relative to the datum		
OPCION C: The location of the datum in reference to the aircraft CG		
0255	The empty weight CG of an airplane lies within the empty weight CG limits,	B
OPCION A: it is necessary to calculate the CG extremes.		
OPCION B: it is not necessary to calculate the CG extremes		

OPCION C: minimum fuel should be used in both forward and rearward CG checks		
0256	When computing the maximum forward loaded CG of an aircraft, minimum weights, arms, and moments should be used for items of useful load that are located aft of the	B
OPCION A: rearward CG limit		
OPCION B: forward CG limit		
OPCION C: datum		
0257	When making a rearward weight and balance check to determine that the CG will not exceed the rearward limit during extreme conditions, the items of useful load which should be computed at their minimum weights are those located forward of the	C
OPCION A: forward CG limit		
OPCION B: datum		
OPCION C: rearward CG limit		
0258	An aircraft with an empty weight of 2,100 pounds and an empty weight CG of +32.5 was altered as follows: 1. two 18-pound passenger seats located at +73 were removed 2. structural modifications were made at +77, increasing weight by 17 pounds 3. a seat and safety belt weighing 25 pounds were installed at + 74.5. 4. radio equipment weighing 35 pounds was installed at +95 What is the new empty weight CG?	B
OPCION A: +34.01		
OPCION B: +33.68		
OPCION C: +34.65		
0259	An aircraft has an empty weight of 4,954 pounds at a CG of +30.5 inches. The CG range is + 32.0 inches to +42.1 inches. Find the minimum weight of the ballast, mounted at + 162 inches, necessary to bring the CG within the CG range	C
OPCION A: 61.98 pounds		
OPCION B: 30.58 pounds		
OPCION C: 57.16 pounds		
0260	Determine the cable size of a 40-foot length of single cable in free air, with a continuous rating, running from a bus to the equipment in a 28 volt system with a 15-ampere load and a 1-volt drop.	A
OPCION A: N° 10.		
OPCION B: N° 12.		
OPCION C: N° 18.		
0261	What size wire would be used for a starter motor if you have 28 volts, 20 feet of wire, and 200 amps?	B
OPCION A: N° 2		
OPCION B: N° 1		
OPCION C: N° 4		
0262	Determine the minimum wire size of a single cable in a bundle carrying a continuous current of 20 -amperes 10 feet from the bus to the equipment in a 28-volt system with an allowable 1-volt drop	C
OPCION A: N° 12.		
OPCION B: N° 14.		
OPCION C: N° 16.		
0263	Determine the maximum length of a N° 12 single cable that can be used between a 28-volt bus and a component utilizing 20 amperes continuous load in free air with a maximum acceptable 1-volt drop	A
OPCION A: 23.5 feet.		
OPCION B: 26.5 feet.		
OPCION C: 12.5 feet.		
0264	What would be the maximum amperage when using an AN14-gage wire with a temperature rating of 150°C in a 28-volt system with a continuous load?	A
OPCION A: 14 amps.		
OPCION B: 10 amps		
OPCION C: 7.5 amps		

0265 Determine the maximum length of a N° 16 cable to be installed from a bus to the equipment in a 28-volt system with a 25-ampere intermittent load and a 1-volt drop

A

OPCION A: 8 feet

OPCION B: 10 feet

OPCION C: 12 feet

0266 A mechanic has installed electric wiring in accordance with an STC, with the exception of adding 2 feet of conduit that passes through the firewall. The STC calls for 16-gage wire with a 150°C temperature rating, 28 volt, 14 amps, single cable in free air. The total length of the wire is 14 feet. Is this installation acceptable with the addition of the conduit?

A

OPCION A: No, there is too much amperage for this length of wire

OPCION B: Yes, the installation is acceptable

OPCION C: No, the voltage drop does not allow this installation

0267 An electric motor draws 14.5 amps, using a 9-wire bundle. What gage wire having a 200° C temperature rating should be used, and what size circuit breaker would be used?

B

OPCION A: 16-gage wire, 15 amp circuit breaker

OPCION B: 14-gage wire, 20 amp circuit breaker

OPCION C: 12-gage wire, 30 amp circuit breaker

0268 You have a 28-volt system, AN20 wire in a bundle and 14 feet of wire. What are the maximum amps?

A

OPCION A: 7 amps

OPCION B: 10 amps

OPCION C: 5 amps

0269 What is the location of the CG of a nose wheel airplane with these specifications?

C

Datum is aft of the main wheels

Main wheels are at - 75.0

Nose wheel is at -153.0

Weight of nose wheel is 340 pounds

Total net weight of airplane is 2,006 pounds

OPCION A: -67.8

OPCION B: +82.8

OPCION C: -88.2

0270 What is the location of the CG of a tail wheel airplane with these specifications?

B

Datum is leading edge of the wing

Right main wheel weighs 564 pounds at +3.0

Left main wheel weighs 565 pounds at +3.0

Tail wheel is at +225.0

Weight of tail wheel is 40 pounds

(67 pounds - 27 pounds of tare)

OPCION A: 12.6

OPCION B: 10.6

OPCION C: 15.4

0271 What is the location of the CG of a nose wheel airplane with these specifications?

A

Datum is leading edge of the wing

Right main wheel weighs 604 pounds at +34.0

(609#-5# tare)

Left main wheel weighs 615 pounds at +34.0

(620#-5# tare)

Nose wheel is at -33.8

Weight of nose wheel is 454 pounds

(464# - 10# tare)

OPCION A: 15.4

OPCION B: 14.8

OPCION C: 16.7

0272 The CG of an aircraft may be determined by B

- OPCION A:** dividing the total arms by the total moments
OPCION B: dividing the total moment by the total weight
OPCION C: multiplying the total weight by the total moment

0273 What is the most forward adverse loaded CG for a tail wheel airplane with these specifications? A

Airplane empty weight-----1,169 pounds
Empty weight CG-----+10.6
Forward CG limit-----+8.5
Pilot-----170 pounds at + 16.0
Fuel tanks-----+22
METO horsepower-----160
Minimum fuel-----80 pounds at +22

- OPCION A:** +11.9
OPCION B: +8.5
OPCION C: +13.2

0274 What is the most rearward adverse loaded CG for a tail wheel airplane with these specifications? C

Airplane empty weight.....1,169 pounds
Empty weight CG-----+10.6
Rearward CG limit-----+21.9
Pilot-----170 pounds at +16.0
Fuel tanks-----+22
Fuel quantity 40 gallons-----240 pounds
Passengers
2 in rear seats-----340 pounds at +48
Baggage (max.placarded)-----100 pounds at +75.5

- OPCION A:** +23.8
OPCION B: +20.7
OPCION C: +21.9

0275 Given: A

Empty weight-----15,000 lbs
2 front passengers-----+85.5
2 rear passengers-----+118.1
2 (two) 50-gal fuel tanks-----+95.0
Baggage 100 lbs-----+110.0

Empty weight CG-----98 inches
Maximum weight-----16,200 lbs
Forward CG limit-----+90.0
Aft CG limit-----+110.0

As loaded, this aircraft would be

- OPCION A:** overweight, but within the CG limits
OPCION B: underweight and outside the aft CG limit
OPCION C: overweight and outside the forward CG limit
-

0276 Given: B

Empty weight-----1,095 lbs
Empty weight CG-----+33.8
Pilot-----+39.0
Passenger -----+39.0
Fuel 135 lbs----- +42.0
Oil 11 lbs----- -12.0
Baggage 120 lbs-----+64.0

Forward CG limit-----34.1
Aft CG limit-----38.0
Maximum weight-----1,750 lbs
100 hp

When making a forward and rearward extreme condition check on this aircraft, which of the following would be correct?

OPCION A: Rearward check, 1721 lbs; 37.9

OPCION B: Rearward check, 1,701 lbs;37.3

OPCION C: Forward check, 1,350 lbs; 34.4

0277 When inspecting a composite structure, what direction is the ply orientation in the upper layer of laminate? A

OPCION A: 0°.

OPCION B: 40°.

OPCION C: 90°.

0278 A letter "E" drill bit is the same as a 1/4-inch fraction. What is the decimal equivalent? B

OPCION A: .3750

OPCION B: .2500

OPCION C: .1250

0279 What publication is an acceptable document for obtaining load factors when computing static load tests for equipment installation in Perú -certificated aircraft? A

OPCION A: AC 43.13-2A

OPCION B: Aircraft Flight Manual

OPCION C: Type Certificate Data Sheet

0280 Static test load factors are ultimate load factors multiplied by prescribed casting, fitting, bearing, and/or other special factors. Where no special factors apply, the static load factors are equal to the B

OPCION A: limit load factors

OPCION B: ultimate load factors

OPCION C: critical load factors

0281 When installing additional equipment in an aircraft, if not otherwise specified, the ultimate load factor used in the static load test is C

OPCION A: four times the weight of the equipment

OPCION B: variable, depending on the direction of the applied force

OPCION C: the limit load factor multiplied by 1.5.

0282 A piece of equipment weighing 6.5 pounds is to be installed aft of the crew compartment on a rotorcraft certificated under 14 CFR Part 27. What is the forward static load test to ensure structural integrity for this piece of equipment? A

Forward static load is

OPCION A: 26 pounds

OPCION B: 39 pounds

OPCION C: 58.5 pounds

0283 What document could be referenced to determine if an aircraft is eligible for ski installation? B

OPCION A: Aircraft airworthiness certificate

OPCION B: Type certificate data sheets

OPCION C: Advisory Circular 43.13-2A

0284	At what static test loads should a banner tow hitch be tested to ensure structural integrity of the aircraft structure?	B
OPCION A:	1.5 times the operating weight of the banner.	
OPCION B:	2.0 times the operating weight of the banner	
OPCION C:	2.5 times the operation weight of the banner	
0285	What are the minimum requirements to operate a gyroscopic instrument at the proper speed?	A
OPCION A:	Minimum required vacuum and rated CFM	
OPCION B:	A flow requirement of .50 cubic feet per minute and a pressure drop of 2.00 in Hg	
OPCION C:	A flow requirement of 2.30 cubic feet per minute and a pressure drop of 4.00 in. Hg.	
0286	What are the minimum requirements to operate a gyroscopic instrument at the proper speed?	A
OPCION A:	Minimum negative pressure to drive the instruments at maximum operating usage, plus pressure drop in plumbing	
OPCION B:	Maximum negative pressure to run total instruments, plus pressure drop in plumbing	
OPCION C:	Minimum positive pressure to drive the instruments at maximum operating usage, plus negative pressure	
0287	The vacuum pump of a vacuum instrumentation system must be able to deliver what?	C
OPCION A:	Enough vacuum required to operate the maximum number of instruments and sufficient positive pressure	
OPCION B:	Enough vacuum required to operate the minimum number of instruments and sufficient positive pressure	
OPCION C:	Enough vacuum required to operate the maximum number of instruments and sufficient negative pressure	
0288	You are required to install an instrument vacuum system in an airplane. There will be a bank and pitch indicator (gyro horizon), a directional gyro, and a turn and slip indicator. The installation will require 20 feet of 1/2 - inch OD aluminum tubing having a wall thickness of 0.042 inch, and four 90° elbows. The vacuum pump required for this installation must be capable of producing a negative pressure of	B
OPCION A:	4.00 inches of mercury	
OPCION B:	5.53 inches of mercury	
OPCION C:	11.53 inches of mercury	
0289	A vacuum-driven gyro system was installed in accordance with an STC, with the exception that a 90 degree elbow was added. The system utilized a 1/2 inch, .042 line and 4 CFM. What would be the pressure drop across the elbow?	C
OPCION A:	.062 in Hg.	
OPCION B:	.067 in Hg.	
OPCION C:	.042 in Hg	
0290	When installing an instrument filter, it should be installed	C
OPCION A:	in the manifold intake port	
OPCION B:	at the instrument intake port	
OPCION C:	either A or B if the instruments are interconnected	
0291	In a normally certificated aircraft, the "CG of the airfoil" (The aerodynamic center of the wing) is normally	C
OPCION A:	before the aircraft CG	
OPCION B:	coincidental of the aircraft CG	
OPCION C:	aft of the aircraft CG	
0292	Normally, an aircraft will have acceptable flight characteristics if the CG is located at what percentage of the average chord?	B
OPCION A:	40 percent	
OPCION B:	25 percent	
OPCION C:	60 percent	
0293	If the aircraft weight and balance data states that the MAC is from stations 860.2 to 1040.9, and a weight and balance computation determines that the CG is located at station 910.2, the location expressed in percentage of MAC is	A
OPCION A:	27.7 % MAC	
OPCION B:	14.9 % MAC	
OPCION C:	24.7 % MAC	

0294 Given: A

Nose wheel weighs 20,500 lbs.....+120.0

Right wheel weighs 70,000 lbs.....+600.0

Left wheel weighs 70,500 lbs.....+600.0

LEMAC.....+500.0

TEMAC.....+690.0

Find the CG expressed in % MAC for this aircraft

OPCION A: 20.46%

OPCION B: 21.5%

OPCION C: 18.0%

0295 A mechanic has just installed a new reinforcement bracket on an airplane. The bracket weighs 18 lbs and was installed at station 352. With the given information, which of the following statements is true? B

Given:

Empty weight of A/C-----4,836

LEMAC location-----+115.28

200 lbs of baggage-----+19.0

Empty weight CG-----+124.13

2 pilots seats-----+95.0

Minimum fuel (350 lbs)-----+126.8

OPCION A: The new CG is located 4.38 inches forward of LEMAC

OPCION B: The new CG is located at 4.34 inches aft of LEMAC

OPCION C: The new CG is 120.37

0296 Which statement is correct regarding the amount of fuel to be in the aircraft when making a check for the forward adverse loaded center of gravity? A

OPCION A: Full fuel if the tank is forward of the forward CG limit

OPCION B: Full fuel if the tank is aft of the forward CG limit

OPCION C: Full fuel if the tank is aft of the rearward CG limit

0297 An airplane is loaded with a ramp weight of 3,650 pounds with a CG of 94.0. Approximately how much baggage would have to be moved from the rear baggage compartment at station 180 to the forward baggage compartment at station 40 to move the CG to 92.0? C

OPCION A: 78.14 pounds

OPCION B: 62.14 pounds

OPCION C: 52.14 pounds

0298 What is the name of the maximum permissible weight of an aircraft with no disposable fuel? C

OPCION A: Maximum ramp weight

OPCION B: Maximum landing weight

OPCION C: Maximum zero fuel weight

0299 A person holding an inspection authorization is responsible for ensuring certain levels of safety in aeronautical products. When inspecting a major alteration for conformity and approval for return to service, the holder of an inspection authorization must determine that data used is C

OPCION A: acceptable to the Administrator

OPCION B: acceptable to the manufacturer

OPCION C: compatible with other installations

0300 Which of the following data could be used as approved data without any further approval? B

OPCION A: Data developed by an owner and approved by a mechanic holding an inspection authorization

OPCION B: Data developed for and incorporated in a supplemental type certificate

OPCION C: Data developed by a commercial operator under a continuous maintenance program

0301 When considering a major alteration to be made in accordance with a Supplemental Type Certificate (STC) what must the approving mechanic with inspection authorization ensure? A

OPCION A: The STC was legally obtained

OPCION B: The STC is compatible with other systems

OPCION C: The STC is in compliance with the certification rule

0302	A small aircraft with a standard airworthiness certificate has been modified per supplemental type certificate (STC) that is designed for a restricted, special purpose operation. The work was performed to 14 CFR Part 43 standards and was compatible with all other installations. As the IA, who inspects the alteration you would	B
OPCION A:	reject the DGAC Form - A - 337 because the aircraft no longer meets the requirements for its standard airworthiness certificate	
OPCION B:	approve the aircraft for return to service	
OPCION C:	hold the DGAC Form - A - 337 until the aircraft has been recertified with the appropriate airworthiness certificate	
0303	For an appliance major repair, which of the following data could be used without further approval?	B
OPCION A:	Advisory Circular	
OPCION B:	Manufacturer's manual	
OPCION C:	Previously approved DGAC Form - A - 337	
0304	When considering a major alteration to be made in accordance with a supplemental type certificate (STC), the approving mechanic with inspection authorization must ensure	A
OPCION A:	the STC is compatible with other previous alterations.	
OPCION B:	the STC is applicable with make and model.	
OPCION C:	Both A and B.	
0305	For an appliance, the manufacturer's manual could be used as approved data for which of the following?	C
OPCION A:	Major repairs.	
OPCION B:	Major alterations.	
OPCION C:	Both A and B.	
0306	For an appliance major alteration, which of the following could be used as approved data without further approval?	B
OPCION A:	Advisory Circulars.	
OPCION B:	Manufacturer's manual.	
OPCION C:	Neither A or B.	
0307	The owner of an aircraft wants to know the feasibility of performing a major alteration to her aircraft. The alteration would be based on a field-approved DGAC Form -A-337, from another modifier of a like aircraft. Which of the following statements would be correct in this situation?	B
OPCION A:	If the proposed alteration does not conflict with any previous modification, the data could be used without further approval.	
OPCION B:	The data could be used as the basis in seeking a field approval.	
OPCION C:	The data could be used without further approval if DGAC Form 337 stated "approval issued for duplication of identical aircraft."	
0308	As an IA, you are performing an annual inspection on an aircraft and notice that the aircraft does not have an OB number. The owner says that he will not be flying the aircraft until the OB number is on the aircraft. As an IA, what is your responsibility in this situation?	B
OPCION A:	Give the owner a list of discrepancies and find the aircraft unairworthy.	
OPCION B:	Approve the aircraft for return to service.	
OPCION C:	Sign the aircraft off as per 14 CFR Part 43, App. A (c)(9).	
0309	A pilot delivers his 14 CFR Part 91 airplane to you, the IA, for an annual inspection. He informs you that the autopilot has become inoperative on the flight in. He requests that you postpone repair under the MEL. On consulting the MEL, the remarks section states "(M) As required by 14 CFR." What document should next be referenced in determining if this item of equipment could be deferred?	C
OPCION A:	14 CFR Part 91.	
OPCION B:	Kinds of Operations List (KOL).	
OPCION C:	Procedures Document.	
0310	Operational and Maintenance procedures (O and M) and /or references for disabling or rendering inoperative items of equipment are found in what document of an 14 CFR Part 91 operator's MEL?	A
OPCION A:	Procedures Document.	
OPCION B:	Letter of Authorization (LOA).	
OPCION C:	Master Minimum Equipment List.	

0311	The owner of a light-twin, operated under 14 CFR Part 135, consults you, as the holder of an inspection authorization, about the feasibility of installing an STC on his aircraft. What effect could a proposed modification have on the aircraft's approved MEL?	B
OPCION A:	The installation would not affect the MEL, however, since the STC is not on the MMEL, the STC's function would not be deferrable.	
OPCION B:	The installation may invalidate the MMEL (Master MEL).	
OPCION C:	The items on the MMEL are not amendable by the IA, however, the STC's function, if allowable, could be deferred under 14 CFR Section 91.213(d).	
0312	Items of inoperative equipment that are deferred under an 14 CFR Part 91 MEL may remain deferred	B
OPCION A:	until the annual inspection becomes due, or the progressive inspection has completed a complete inspection period.	
OPCION B:	so long as it is inspected and determined not to pose a hazard to further operation.	
OPCION C:	until the time period specified by the A, B, C, codes of the MEL require repair or replacement.	
0313	How may discrepancies to a Part 135 aircraft with an MEL be disposed of during periods of Part 91 operation?	B
OPCION A:	The provisions of the 14 CFR Part 91 MMEL may be used until the aircraft is returned to 14 CFR Part 135 operation.	
OPCION B:	Any discrepancies must be disposed of by the provisions of the aircraft's MEL.	
OPCION C:	The provisions of 14 CFR Section 91.213(d) could be used during periods of 14 CFR Part 91 operations.	
0314	A small single-engine turboprop airplane that is operated under 14 CFR Part 91 is presented to you for an annual inspection. During the inspection, you observed two items of non-essential equipment have been previously deferred. Further inspection reveals the items are deactivated and placarded properly. The aircraft does not have a minimum equipment list. How should you proceed?	C
OPCION A:	Complete the annual inspection, but inform the owner that the items should be repaired as soon as possible.	
OPCION B:	Inspect the items and continue to defer if safe to do so.	
OPCION C:	List the items as unairworthy.	
0315	During the annual inspection of an 14 CFR Part 91, small, single-engine, turbo-propeller airplane, an item of nonessential inoperable equipment was noted. If the airplane does not have an approved minimum equipment list, how must this discrepancy be handled?	B
OPCION A:	Deactivate and placard the item, make a maintenance record entry.	
OPCION B:	Make a maintenance record entry listing the item as unairworthy.	
OPCION C:	The discrepancy may be disposed of by either A or B.	
0316	As the holder of an inspection authorization (License), you have performed an inspection on a light, reciprocating twin-engine airplane, used in 14 CFR Part 135 air carrier operation. During the inspection, an inoperative instrument was discovered. The instrument is not listed on the MEL. The pilot points out that the flight to a location where the aircraft would be repaired is under 14 CFR Part 91. She suggests you defer the maintenance under 14 CFR Section 91.213. How would you proceed?	A
OPCION A:	Determine that the instrument is nonessential, if so, deactivate and placard, then return to service.	
OPCION B:	Make a maintenance record entry listing the instrument as an unairworthy item.	
OPCION C:	If the instrument is not on the Kinds of Operations List (KOL) as necessary for the flight, the airplane could be returned to service.	
0317	The letter designators in column 1 (ITEM) of an MEL have what significance to an 14 CFR Part 91 operator during aircraft maintenance?	C
OPCION A:	Establishes the repair time at which that item, if deferred, must be repaired.	
OPCION B:	Indicates who may defer the item, the pilot or mechanic.	
OPCION C:	This designator has no significance to the 14 CFR Part 91 operator.	
0318	What significance does the asterisk * symbol in column 4 of an MEL have for maintenance personnel?	C
OPCION A:	The maintenance person should see the reference section for the corresponding RAP.	
OPCION B:	It indicates the item of equipment was added by the operator and not originally on the Master MEL.	
OPCION C:	The item of equipment, if inoperative, must be placarded.	

0319 The owner of an airplane asks you to perform an annual inspection on the airplane he has just purchased. The previous owner transferred all the aircraft's records including his MEL and procedures document with the aircraft. The new owner informs you that the propeller deicing system is not working and asks you to defer repair of it under the MEL. The MEL lists the equipment and states in the remarks section, "May be inoperable provided flight is not operated in known or forecast icing conditions." How should you proceed?

A

OPCION A: Inform the owner that te equipment cannot be deferred under this MEL.

OPCION B: Determine that the equipment is nonessential, if so, deactivate and placard before approving for return to service.

OPCION C: If the equipment is not required by the aircraft's certification rule, then defer it per the MEL, ensuring any (M) maintenance procedures are accomplished.
