01. Safety Precautions Aircraft and Workshop.

Question Number. 1 A dry powder extinguisher is colored.
Option A. green.
Option B. red.
Option C. blue.
Correct Answer is. blue.
Explanation. BS EN3.

Question Number. 2. Acetylene gas forms an explosive compound with.
Option A. tin and silver.
Option B. tin and copper.
Option C. copper and silver.
Correct Answer is. copper and silver.
Explanation. NIL.

Question Number. 3. When mixing acid and water.
Option A. the acid should always be added to the water.
Option B. it does not matter which way the two are mixed.
Option C. the water should always be added to the acid.
Correct Answer is. the acid should always be added to the water.
Explanation. NIL.

Question Number. 4. You are involved with a fire caused by titanium swarf. What type of extinguish ant should you use to deal with the fire?.
Option A. Dry asbestos wool and chalk powder.
Option B. CO^2.
Option C. Chemical foam.
Correct Answer is. Dry asbestos wool and chalk powder.
Explanation. BL/6-18 12.5.

Question Number. 5. An aircraft should not be refueled when.
Option A. the APU is running.
Option B. navigation and landing light in operation.
Option C. within 10 meters (30 feet) of radar operating.
Correct Answer is. within 10 meters (30 feet) of radar operating.
Explanation. AL/3-8 2.1.6, GOL/1-1 7.3.2.

Question Number. 6. The minimum 'no smoking' zone around an aircraft when refueling is.
Option A. 15m.
Option B. 10m.
Option C. 6m.
Correct Answer is. 6m.
Explanation. Leaflet 5-1 2.2.2.

Question Number. 7. A CO^2 extinguisher is used on.
Option A. solid, liquid, hot metal and electrical fires.
Option B. solid, liquid and electrical fires.
Option C. solid and liquid fires.
Correct Answer is. solid, liquid and electrical fires.
Explanation. Hot metal and liquid fires would be extinguished with foam.

Question Number. 8. In an oxygen system, if the pressure drops to 500 PSI, it.
Option A. causes anoxia.
Option B. begins to overheat.
Option C. blocks the oxygen system regulator.
Correct Answer is. blocks the oxygen system regulator.
Explanation. At low pressure, air can mix with the oxygen. The moisture in the air freezes as the gas expands on exit of the system and blocks the regulator. Jeppesen A&P Airframe Technician Page 14-17.

Question Number. 9. After working with epoxy resins, how is natural oil returned to the skin?.
Option A. Epoxy removing cream.
Option B. Refatting cream.
Option C. Acetone/lanolin mixture.
Correct Answer is. Acetone/lanolin mixture.
Explanation. Acetone is used to remove epoxy resin, but it dries the skin, so it is mixed with lanolin to prevent this (same mixture as nail varnish remover).

Question Number. 10. Neither oil nor grease should be used as a lubricant on couplings or pipelines carrying.
Option A. Oxygen.
Option B. Kerosene.
Option C. Nitrogen.
Correct Answer is. Oxygen.
Explanation. AL/3-25 5.4 (vi).

Question Number. 11. Which type of extinguisher can be used for an electric fire?.
Option A. Foam.
Option B. Water.
Option C. CO^2.
Correct Answer is. CO^2.
Explanation. AL/3-10 3.3.

Question Number. 12. The colour of CO^2 type fire extinguisher is.
Option A. red.
Option B. black.
Option C. green.
Correct Answer is. black.
Explanation. NIL.

Question Number. 13. Which type of extinguisher can be used for engine fire?.
Option A. CO^2.
Option B. BCF.
Option C. Water.
Correct Answer is. CO^2.
Explanation. Leaflet 5-1 4.2.4 (a).

Question Number. 14. Fire on landing gear brake should be extinguished with.
Option A. dry powder extinguisher.
Option B. carbon dioxide extinguisher.
Option C. water extinguisher.
Correct Answer is. dry powder extinguisher.
Explanation. AL/3-19 10.4. Jeppesen A&P Mechanics Handbook Page 503, CAAIP S Leaflet 5-8 10.4.

Question Number. 15. Which type of fire extinguishers can be used in the cabin?.
Option A. C.T.C.
Option B. water or B.C.F.
Option C. M.B.
Correct Answer is. water or B.C.F.
Explanation. Methyl Bromide and CTC extinguishers are toxic. Jeppesen A&P Mechanics Handbook Page 502 and 504.

Question Number. 16. Risk assessments should only be carried out on.
Option A. all tasks and processes that are performed.
Option B. tasks using hazardous chemicals.
Option C. tasks carried out above the height of 6 foot.
Correct Answer is. all tasks and processes that are performed.
Explanation. NIL.

Question Number. 17. The most appropriate fire extinguisher for an aircraft wheel and brake fire would be.
Option A. carbon dioxide.
Option B. dry powder.
Option C. water.
Correct Answer is. dry powder.
Explanation. AL/3-19 10.4.

Question Number. 18. Once a person has been disconnected from the source of an electrical shock the next step should be.
Option A. seek assistance immediately.
Option B. check for breathing start AR if necessary.
Option C. check for pulse start cardiac massage if necessary.
Correct Answer is. check for breathing start AR if necessary.
Explanation. NIL.

Question Number. 19. What can cause dermatitis?.
Option A. Washing hands in solvents.
Option B. Not wearing eye protection when using solvents.
Option C. Inhalation of paint fumes.
Correct Answer is. Washing hands in solvents.
Explanation. NIL.

Question Number. 20. If an oxygen cylinder pressure falls below 500 PSI.
Option A. the diluter stick will stick.
Option B. the oxygen will degrade and cause anoxia.
Option C. condensation will cause corrosion.
Correct Answer is. condensation will cause corrosion.
Explanation. NIL.

02. Workshop Practices.

Question Number. 1. On a hollow tube where would a small indentation normally be unacceptable?.
Option A. Nowhere on the tube is an indentation acceptable.
Option B. In the mid 1/3 section.
Option C. In either of the outer 1/3 portion of the tube.
Correct Answer is. In the mid 1/3 section.
Explanation. CAAIP s Leaflet 6-4 Para 7.2.

Question Number. 2. What type of grinding wheel would you sharpen an HSS drill bit on?.
Option A. A green wheel.
Option B. A course wheel.
Option C. A fine wheel.
Correct Answer is. A fine wheel.
Explanation. A Green Grit (Silicon Carbide) wheel is used for Tungsten Carbide bit tools (Non-steel). For HSS you need a fine Grey Aluminum Oxide wheel.

Question Number. 3. When using a reamer.
Option A. use no lubricant.
Option B. use the same lubricant as was used on the drill bit.
Option C. use lard oil.
Correct Answer is. use the same lubricant as was used on the drill bit.
Explanation. NIL.

Question Number. 4. How many teeth per inch are used on a hacksaw blade for cutting hard metal?.
Option A. 54.
Option B. 36.
Option C. 26.
Correct Answer is. 26.
Explanation. Blades are available 18 - 32 TPI. Greatest TPI is for hard metals.

Question Number. 5. How many strokes per minute are used on a hacksaw when cutting thick metal?.
Option A. 30.
Option B. 65.
Option C. 55.
Correct Answer is. 55.

Explanation. NIL.

Question Number. 6. When lifting a bulky component with a wire rope sling, the component can be protected from damage by the sling by.
Option A. fabricating alternative lifting points.
Option B. using a suitably shaped sling.
Option C. using spreader bars and packing.
Correct Answer is. using spreader bars and packing.
Explanation. NIL.

Question Number. 7. Gas bottles for CO^2 air and acetylene are coloured.
Option A. grey, maroon, green.
Option B. black, grey, maroon.
Option C. green, grey, maroon.
Correct Answer is. black, grey, maroon.
Explanation. NIL.

Question Number. 8. To drill a 1/4 inch hole in titanium, the correct starting procedure would be.
Option A. to centre drill.
Option B. to centre punch.
Option C. to drill 1/4 inch hole direct.
Correct Answer is. to centre drill.
Explanation. CAIP S EL/3-3 Para. 3.2.

Question Number. 9. In a torque wrench of handle length, L = 12 in. and an extension E = 3 in, the desired torque value is 300 lbs.in. the dial should read.
Option A. 240 lb.ins.
Option B. 375 lb.ins.
Option C. 280 lb.ins.
Correct Answer is. 240 lb.ins.
Explanation. CAAIP S Leaflet 2-11 4.4.

Question Number. 10. When a torque loading is specified for a castellated or slotted nut on an undrilled new bolt.
Option A. the bolt should be pre-drilled, the torque applied and the nut eased back, if necessary, to allow the split pin to be fitted.
Option B. the bolt should be pre-drilled and the torque increased if necessary to allow the split pin to be fitted.

Option C. the torque should be applied and the bolt suitably drilled for the split pin.
Correct Answer is. the torque should be applied and the bolt suitably drilled for the split pin.
Explanation. NIL.

Question Number. 11. A reamer with spiral flutes is removed.
Option A. clockwise.
Option B. straight.
Option C. anticlockwise.
Correct Answer is. clockwise.
Explanation. Jeppesen A&P General Technician Textbook Page 9-19.

Question Number. 12. The difference between high and low limits of a size for a dimension is known as the.
Option A. deviation.
Option B. tolerance.
Option C. fit.
Correct Answer is. tolerance.
Explanation. NIL.

Question Number. 13. Rubber components should be stored.
Option A. in warm and humid conditions.
Option B. in a well lit room.
Option C. in a cool dark area.
Correct Answer is. in a cool dark area.
Explanation. CAAIP S Leaflet 1-8 3.3.

Question Number. 14. When comparing the machining techniques for stainless steel sheet material to those for aluminum alloy sheet, it is normally considered good practice to drill the stainless steel at a.
Option A. higher speed with less pressure applied to the drill.
Option B. lower speed with more pressure applied to the drill.
Option C. lower speed with less pressure applied to the drill.
Correct Answer is. lower speed with more pressure applied to the drill.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 2-27.

Question Number. 15. When drilling stainless steel, the drill used should have an included angle of.
Option A. 140° and turn at a low speed.

Option B. 90° and turn at a low speed.
Option C. 118° and turn at a high speed.
Correct Answer is. 140° and turn at a low speed.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 2-27.

Question Number. 16. When stop drilling a crack, what is the typical drill size used?.
Option A. 0.025 inch.
Option B. 0.250 inch.
Option C. 0.125 inch.
Correct Answer is. 0.125 inch.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 2-6.

Question Number. 17. When degreasing aluminum alloys, and no trichloroethylene is available, a suitable alternative is.
Option A. dilute sulphuric acid.
Option B. M.E.K.
Option C. white spirit and naphtha.
Correct Answer is. white spirit and naphtha.
Explanation. NIL.

Question Number. 18. A grinding wheel is normally refaced by.
Option A. dressing with a special tool.
Option B. grinding through using another grinding wheel.
Option C. holding a hard wood scraper against the rotating wheel.
Correct Answer is. dressing with a special tool.
Explanation. NIL.

Question Number. 19. lbs.in. is. When checking a torque wrench 15 inches long, the load required to give torque of 120
Option A. 6 lbs.
Option B. 8 lbs.
Option C. 10 lbs.
Correct Answer is. 8 lbs.
Explanation. NIL.

Question Number. 20.
How would you check the setting of an adjustable reamer?.
Option A. Ring gauge.
Option B. Dial test indicator and 'V' blocks.

Option C. External calipers.
Correct Answer is. Ring gauge.
Explanation. NIL.

Question Number. 21. What is the specified lubricant for drilling brass?.
Option A. None.
Option B. Paraffin.
Option C. Lard oil.
Correct Answer is. None.
Explanation. NIL.

Question Number. 22. In the Limit System, the term 'allowance' is the.
Option A. difference between shaft and hole diameters.
Option B. hole diameter variation.
Option C. shaft diameter variation.
Correct Answer is. difference between shaft and hole diameters.
Explanation. NIL.

Question Number. 23. Which is correct concerning the use of a file?.
Option A. The terms 'double-cut' and 'second-cut' have the same meaning in reference to files.
Option B. Apply pressure on the forward stroke, only, except when filing very soft metals such as lead or aluminum.
Option C. A smoother finish can be obtained by using a double-cut file than by using a single-cut file.
Correct Answer is. Apply pressure on the forward stroke, only, except when filing very soft metals such as lead or aluminum.
Explanation. Jeppesen A&P General Technician Textbook Page 9-11.

Question Number. 24. Which procedure is correct when using a reamer to finish a drilled hole to the correct size?.
Option A. Turn the reamer only in the cutting direction.
Option B. Turn the reamer in the cutting direction when enlarging the hole and in the opposite direction to remove from the hole.
Option C. Apply considerable pressure on the reamer when starting the cut and reduce the pressure when finishing the cut.
Correct Answer is. Turn the reamer only in the cutting direction.
Explanation. Jeppesen A&P General Technician Textbook Page 9-19.

Question Number. 25. Of what tolerance is the following an example? 1 in. + 0.002-0.001.
Option A. Bilateral.
Option B. Multilateral.
Option C. Unilateral.
Correct Answer is. Bilateral.
Explanation. NIL.

Question Number. 26. How should a scraper be finally sharpened?.
Option A. By draw filing.
Option B. On a grindstone.
Option C. On an oil-stone.
Correct Answer is. On an oil-stone.
Explanation. NIL.

Question Number. 27. How is a D.T.I. initially set up?.
Option A. The gauge plunger should be fully extended and the needle zeroed.
Option B. The gauge plunger should be partly depressed and the needle zeroed.
Option C. The needle zeroed, then the plunger fully extended.
Correct Answer is. The gauge plunger should be partly depressed and the needle zeroed.
Explanation. NIL.

Question Number. 28. Nickel alloy chisels should be sharpened.
Option A. by filing.
Option B. on a grindstone.
Option C. on an oilstone.
Correct Answer is. on an oilstone.
Explanation. NIL.

Question Number. 29. What type of lubricant should be used when drilling aluminum?.
Option A. Vegetable oil.
Option B. Paraffin.
Option C. None.
Correct Answer is. Paraffin.
Explanation. Paraffin is the lubricant for aluminum.

Question Number. 30. How are spring dividers sharpened?.
Option A. By filing the outside of the points.

Option B. By stoning the outside of the points.
Option C. By grinding the inside of the points.
Correct Answer is. By stoning the outside of the points.
Explanation. NIL.

Question Number. 31. What would be the result of an insufficient clearance angle on a twist drill?.
Option A. It would cut slowly, if at all.
Option B. It would produce an oversize hole.
Option C. It would tend to pull through the hole
Correct Answer is. It would cut slowly, if at all.
Explanation. External website.
http://www.unionbutterfield.com/tech/drills/trouble_shooting.asp

Question Number. 32. A tolerance given on a dimension is indicated.
Option A. by a plus and minus sign preceding the permitted tolerance.
Option B. by the prefix TOL with the permitted tolerance.
Option C. by enclosing the permitted tolerance within a triangle.
Correct Answer is. by a plus and minus sign preceding the permitted tolerance.
Explanation. NIL.

Question Number. 33. How much material should be allowed for reaming?.
Option A. 0.001 in.
Option B. 0.003 in.
Option C. 0.010 in.
Correct Answer is. 0.003 in.
Explanation. Jeppesen A&P General Technician Textbook Page 9-19.

Question Number. 34. After cutting a 3/8 inch BSF internal thread and stud, it is found that the stud is too large.
How is a fit achieved?.
Option A. Remove the male thread crests with a fine emery cloth.
Option B. Grind a taper on the end of the bolt.
Option C. Re-adjust the die and re-cut the male thread.
Correct Answer is. Re-adjust the die and re-cut the male thread.
Explanation. NIL.

Question Number. 35. You have reamed out a hole in a piece of titanium. How should you remove the reamer safely to prevent unnecessary damage?.
Option A. Allow the reamer to pass right through the hole.

Option B. Remove it, but in the same rotation as if cutting.
Option C. Anti-clockwise.
Correct Answer is. Remove it, but in the same rotation as if cutting.
Explanation. Jeppesen A&P General Technician Textbook Page 9-19.

Question Number. 36. Why are some components torque loaded?.
Option A. To ensure that their elastic limit is not exceeded.
Option B. To ensure they do not vibrate loose.
Option C. To ensure that they are tightened to their yield point.
Correct Answer is. To ensure that their elastic limit is not exceeded.
Explanation. NIL.

Question Number. 37. When using a reamer, in which direction should it be turned?.
Option A. Anti-clockwise when Cutting and removing.
Option B. Clockwise when cutting and anti-clockwise when removing.
Option C. Clockwise when cutting and removing.
Correct Answer is. Clockwise when cutting and removing.
Explanation. Jeppesen A&P General Technician Textbook Page 9-19.

Question Number. 38. Draw filing produces.
Option A. a course finish.
Option B. a fine finish.
Option C. a mottled finish.
Correct Answer is. a fine finish.
Explanation. NIL.

Question Number. 39. A safe edge of a file is used.
Option A. against a finished surface.
Option B. to give a fine polished finish to a smooth surface.
Option C. against a rough unfinished surface.
Correct Answer is. against a finished surface.
Explanation. NIL.

Question Number. 40. What is the minimum number of hacksaw blade teeth that should be in contact with the material being cut?.
Option A. 2.
Option B. 4.
Option C. 3.
Correct Answer is. 3.

Explanation. NIL.

Question Number. 41. When reading a blueprint, a dimension is given as 4.387 inches + 0.005-0.002. Which statement is true?.
Option A. The maximum acceptable size is 4.385 inches.
Option B. The minimum acceptable size is 4.385 inches.
Option C. The maximum acceptable size is 4.389 inches.
Correct Answer is. The minimum acceptable size is 4.385 inches.
Explanation. NIL.

Question Number. 42. Chalk when used with a fine file produces.
Option A. a finer finish.
Option B. a milled type surface.
Option C. a ground type surface.
Correct Answer is. a finer finish.
Explanation. NIL.

Question Number. 43. When using a hand file correctly, the downward pressure should be used only.
Option A. on a return stroke.
Option B. on the forward stroke.
Option C. on the forward and return stroke.
Correct Answer is. on the forward stroke.
Explanation. NIL.

Question Number. 44. The size of the nibs of vernier calipers can be ascertained by.
Option A. using the standard of 0.693 inches.
Option B. measuring the steel rule.
Option C. noting the dimension engraved on the instrument.
Correct Answer is. noting the dimension engraved on the instrument.
Explanation. BL/3-4 3.5.

Question Number. 45. A shaft dimension given as 1.225 inches +/- 0.003 inches followed by 'MMC' should be manufactured to what size?.
Option A. 1.228 Inches.
Option B. 1.222 Inches.
Option C. 1.225 Inches.
Correct Answer is. 1.228 Inches.
Explanation. Leaflet 2-1 5.11.3.

Question Number. 46. 2 microns is.
Option A. 0.002 mm.
Option B. 0.002 inch.
Option C. 0.000 002 inch.
Correct Answer is. 0.002 mm.
Explanation. 1 micron = 0.001 mm.

Question Number. 47. The edge or surface of a part from which dimensions are measured from is called the.
Option A. water line.
Option B. reference plane.
Option C. datum.
Correct Answer is. datum.
Explanation. Leaflet 2-1 5.5.1.

Question Number. 48. Water Lines are.
Option A. front to rear measurements on the fuselage.
Option B. vertical measurements on the fuselage.
Option C. left and right measurements on the fuselage.
Correct Answer is. vertical measurements on the fuselage.
Explanation. AL/7-2 fig 15.

Question Number. 49. When clamping cable looms containing co-axial cables.
Option A. distortion of the outer sheath is allowed providing the inner cable is not affected.
Option B. the clamps must be no more than 1 metre apart.
Option C. avoid distortion to the co-axial cable to maintain the dielectric constant.
Correct Answer is. avoid distortion to the co-axial cable to maintain the dielectric constant.
Explanation. NIL.

Question Number. 50. If a test or inspection instrument has no calibration data supplied by the manufacturer, you would use the calibration data provided by.
Option A. the British Standards Quality Assurance documentation referring to calibration of instrumentation and test equipment.
Option B. CAAIP S.
Option C. the Maintenance Manual.

Correct Answer is. the British Standards Quality Assurance documentation referring to calibration of instrumentation and test equipment.
Explanation. Leaflet 2-14 2.2.

Question Number. 51. Why are test or inspection instruments regularly calibrated and certified?.
Option A. To ensure they will perform within the required limits of operation.
Option B. To ensure they can handle the range of measurements required of them.
Option C. To ensure they are being used regularly.
Correct Answer is. To ensure they will perform within the required limits of operation.
Explanation. Leaflet 2-14 1.2.

Question Number. 52. Who is responsible for ensuring that weight and balance instrumentation is serviceable before use?.
Option A. An engineer holding a license in the instrument category.
Option B. The manufacturer of the equipment.
Option C. The person responsible for carrying out the weight and balance procedure.
Correct Answer is. The person responsible for carrying out the weight and balance procedure.
Explanation. NIL.

Question Number. 53. At which frequency is the calibration of frequently used crimping tools carried out?.
Option A. Bi-annually.
Option B. Annually.
Option C. Every 1000 crimps.
Correct Answer is. Every 1000 crimps.
Explanation. Or every 3 months, whichever comes first.

Question Number. 54. When using the trepanning tool, the hole to be drilled should be.
Option A. 1/32 inch larger than the guide pin.
Option B. same diameter as the guide pin.
Option C. 1/32 inch smaller than the guide pin.
Correct Answer is. same diameter as the guide pin.
Explanation. NIL.

Question Number. 55. When using a strip-board, the tracks on a PCB are etched.
Option A. before component fitment.
Option B. after fitment but before soldering the components.
Option C. after fitment and soldering of components.
Correct Answer is. before component fitment.
Explanation. MMC/1-1 7.

Question Number. 56. A 'light drive' fit for a 3/8 inch diameter bolt has a maximum allowance of.
Option A. 0.005 inch.
Option B. 0.0025 inch.
Option C. 0.0006 inch.
Correct Answer is. 0.0006 inch.
Explanation. AC43.13-1B Page 7-5 Para.7-39.

Question Number. 57. The intervals for calibration of test equipment.
Option A. are every year.
Option B. are different from one appliance to another.
Option C. are as specified in EASA Part-145.
Correct Answer is. are different from one appliance to another.
Explanation. EASA Part-145 is not specific.

Question Number. 58. What drill angle is used to drill titanium?.
Option A. 130-140 degrees.
Option B. 105-120 degrees.
Option C. 90-100 degrees.
Correct Answer is. 105-120 degrees.
Explanation. BL/6-18 Para. 6.

Question Number. 59. When tightening a nut on a bolt the torque loading applied is.
Option A. inversely proportional to the force applied to the spanner.
Option B. the tangential application of the force times the perpendicular distance from the point of application to the centre of the bolt.
Option C. independent of whether the threads are wet or dry.
Correct Answer is. the tangential application of the force times the perpendicular distance from the point of application to the centre of the bolt.
Explanation. Torque = force * distance of force from centre of bolt.

Question Number. 60. The UK standard of limits and fits is.
Option A. BS4500.
Option B. BS8888.
Option C. BS308.
Correct Answer is. BS4500.
Explanation. BS4500 is Limits and Fits.

Question Number. 61. When using a Pacific tensiometer the correct tension is found by.
Option A. reading dial, provided the correct riser is used for the cable diameter.
Option B. comparing reading to chart provided.
Option C. adding reading to riser number.
Correct Answer is. comparing reading to chart provided.
Explanation. The Pacific Tensiometer is NOT a direct reading type. See Pacific Tensiometer instructions.

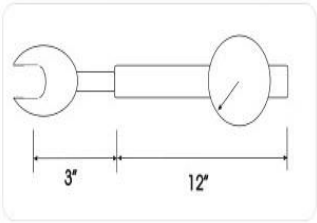
Question Number. 62. What temperature should the heat gun be set for shrinking heat shrink sleeve?.
Option A. At the rated temperature.
Option B. 100°C below rated temperature.
Option C. 100°C above rated temperature.
Correct Answer is. 100°C above rated temperature.
Explanation. Rated temperature is the normal working temperature of the heat-shrink material. The shrink at approximately 100°C above that.

Question Number. 63. Calibration of aircraft hydrostatic weighing equipment is.
Option A. done once a year.
Option B. carried out every time before an aircraft is weighed and adjusted by operator.
Option C. not required.
Correct Answer is. done once a year.
Explanation. Hydrostatic weighing equipment should be calibrated every year.

Question Number. 64. When drilling light alloy.
Option A. lard oil should be used.
Option B. use the specified lubricant.
Option C. no lubricant is required.
Correct Answer is. use the specified lubricant.

Explanation. Since the question is not specific as to which light alloy is to be drilled, the 'specified' lubricant is used (even if the 'specified' lubricant is 'nothing').

Question Number. 65. The picture shows a torque wrench with an extension. To apply a torque of 350 lb.in. the reading on the dial should be.



Option A. 350 lb.in.
Option B. 280 lb.in.
Option C. 245 lb.in.
Correct Answer is. 280 lb.in.
Explanation. BL/6-30 4.4.1.

Question Number. 66. Reaming light alloy tube is done with.
Option A. no lubricant.
Option B. the same oil and lubrication as used for cutting.
Option C. hard base lubricant.
Correct Answer is. the same oil and lubrication as used for cutting.
Explanation. Reaming is lubricated with the same fluid as cutting (drilling).

Question Number. 67. Tolerance is the.
Option A. the difference between a hole and shaft size.
Option B. allowable error due to faulty workmanship and tools.
Option C. difference between worn and new tools.
Correct Answer is. allowable error due to faulty workmanship and tools.
Explanation. Tolerance is allowable error due to faulty workmanship and tools.

Question Number. 68. What should be done if a tool is found not to be working to its calibrated requirements?.
Option A. It should be removed from service, marked as unserviceable and sent away for overhaul.
Option B. It should be placed back into stores and kept in service until the next calibration is due.
Option C. A mechanic should adjust it to restore it to the correct operation.
Correct Answer is. It should be removed from service, marked as unserviceable and sent away for overhaul.
Explanation. Tool should be removed from service, marked as unserviceable and sent away for overhaul.

Question Number. 69. When carrying out soldering to an end termination and a wire, you should tin.
Option A. only the end of the wire.
Option B. neither the wire or the termination as tinning is not required.
Option C. both the end of the wire and the termination.
Correct Answer is. both the end of the wire and the termination.
Explanation. BL/6-1 13.2.

Question Number. 70. Run-out of a rod is measured using.
Option A. DTI, surface plate and V-blocks.
Option B. micrometer and V-blocks.
Option C. vernier and V-blocks.
Correct Answer is. DTI, surface plate and V-blocks.
Explanation. EL/3-3 Page 2 fig 1.

Question Number. 71. How would you mark a defect on an exhaust system?.
Option A. Pencil.
Option B. Chalk.
Option C. Special zinc/copper tipped marking tool.
Correct Answer is. Chalk.
Explanation. AC43 Para. 8-49. Jeppesen Aircraft Gas Turbine Powerplants 5-31.

Question Number. 72. Which of the following is the most appropriate filing technique?.
Option A. Pressure backwards, relieve pressure forwards.
Option B. Even pressure forward and backwards.
Option C. Pressure forwards, relieve pressure backwards.
Correct Answer is. Pressure forwards, relieve pressure backwards.
Explanation. Jeppesen A&P Mechanics Handbook Page 537.

Question Number. 73. Stubborn pins in file teeth should be removed by.
Option A. tapping file gently on workbench.
Option B. using file card.
Option C. pricking out with sharp point.
Correct Answer is. pricking out with sharp point.
Explanation. Jeppesen A&P Mechanics Handbook Page 538.

Question Number. 74. When using low tungsten hacksaw blades it is recommended to use.
Option A. 60 strokes per minute.

Option B. 50 stroke per minute.
Option C. 40 strokes per minute.
Correct Answer is. 50 stroke per minute.
Explanation. Jeppesen A&P Mechanics Handbook Page 535.

Question Number. 75. Units of torque are.
Option A. lbs/ft^2 and lbs/in^2.
Option B. Lbs and Kg.
Option C. lbs.ft and lbs.in.
Correct Answer is. lbs.ft and lbs.in.
Explanation. NIL.

Question Number. 76. The calibration of a piece of test equipment is suspect. Your actions would be.
Option A. calibrate/rectify immediately.
Option B. note and rectify later.
Option C. remove from service and annotate accordingly.
Correct Answer is. remove from service and annotate accordingly.
Explanation. NIL.

Question Number. 77. What should you check before using a set of V blocks?.
Option A. That both blocks have the same identification stamps.
Option B. It doesn't matter.
Option C. The calibration date.
Correct Answer is. That both blocks have the same identification stamps.
Explanation. NIL.

Question Number. 78. When turning the handle on a megger with the probes kept apart.
Option A. the needle stays at infinity.
Option B. the needle deflects to infinity.
Option C. the needle moves to zero.
Correct Answer is. the needle stays at infinity.
Explanation. The needle of a Megger rests on infinity and is deflected to Zero.

03. Tools.

Question Number. 1. How many strokes per minute should generally be used with a hacksaw?.
Option A. 60.

Option B. 30.
Option C. 55.
Correct Answer is. 55.
Explanation. NIL.

Question Number. 2. What type of drill would you use on carbon fibre?.
Option A. Diamond tipped.
Option B. Carborundum.
Option C. Tungsten carbide.
Correct Answer is. Tungsten carbide.
Explanation. Airbus A340-600 SRM.

Question Number. 3. A micro-shaver is used to.
Option A. cut rivets to length prior to forming.
Option B. mill the rivet head after forming.
Option C. trim the shank diameter prior to forming.
Correct Answer is. mill the rivet head after forming.
Explanation. A&P Technician Airframe Textbook 2-37 and 2-68.

Question Number. 4. How many teeth per inch are there on a fine hacksaw blade?.
Option A. 64.
Option B. 16.
Option C. 32.
Correct Answer is. 32.
Explanation. Jeppesen A&P Technician General Textbook Page 13.

Question Number. 5. What is the normal cutting angle of a drill?.
Option A. 59°.
Option B. 130°.
Option C. 12°.
Correct Answer is. 59°.
Explanation. Jeppesen A&P Technician General Textbook Page 15.

Question Number. 6. When using a moving coil as an ammeter the greatest amount of current flows through the.
Option A. bushes.
Option B. coil.
Option C. shunt.
Correct Answer is. shunt.

Explanation. Jeppesen A&P Technician General Textbook Page 3-89.

Question Number. 7. When using the old style vernier caliper for taking internal measurements.
Option A. add the nib measurements.
Option B. subtract the nib measurements.
Option C. the nib size has no relevance and can be ignored.
Correct Answer is. add the nib measurements.
Explanation. Jeppesen A&P General Textbook 9-39.

Question Number. 8. To carry out an insulation test on a wire rated at 115 volts you would use.
Option A. a 250 volt megger.
Option B. a 115 volt megger.
Option C. a 500 volt megger.
Correct Answer is. a 250 volt megger.
Explanation. CAAIP S Leaflet 9-1, 4.4.2 As a rule of thumb, the megger should be twice the voltage of the system under test.

Question Number. 9. The normal drill angles are.
Option A. cutting angle 59°, web angle 130° and clearance angle 12°.
Option B. cutting angle 130°, web angle 59° and clearance angle 12°.
Option C. cutting angle 12°, web angle 130° and clearance angle 130°.
Correct Answer is. cutting angle 59°, web angle 130° and clearance angle 12°.
Explanation. NIL.

Question Number. 10. The abbreviation 'A/F' means.
Option A. American Fine.
Option B. Across Flats.
Option C. Associated Fine.
Correct Answer is. Across Flats.
Explanation. CAAIP S Leaflet 9-3 Pg.7.

Question Number. 11. A rivet shaver is used to.
Option A. mill the head flush.
Option B. mill the tail after cutting.
Option C. mill the tail after setting.
Correct Answer is. mill the head flush.
Explanation. Jeppesen A&P Airframe Textbook 2-68.

Question Number. 12. A drill and wire gauge has holes numbered.
Option A. 10 to 60.
Option B. 1 to 80.
Option C. 1 to 50.
Correct Answer is. 1 to 80.
Explanation. Jeppesen A&P Airframe Textbook Fig.2-47.

Question Number. 13. A 250 volt megger should not be used.
Option A. on electronic equipment.
Option B. in fuel tanks.
Option C. on radio aerials.
Correct Answer is. on electronic equipment.
Explanation. Leaflet 9-1 4.4.4.

Question Number. 14. If the leads of a megger are held apart.
Option A. the spring will return the needle to infinity.
Option B. the spring will return the needle to the zero stop.
Option C. if the handle was turned the meter would read infinity.
Correct Answer is. if the handle was turned the meter would read infinity.
Explanation. A megger has no spring.

Question Number. 15. One megohm is equal to.
Option A. 1,000 ohms.
Option B. 1,000,000 ohms.
Option C. 100,000 ohms.
Correct Answer is. 1,000,000 ohms.
Explanation. NIL.

Question Number. 16. Reamers are used to.
Option A. drill accurate holes.
Option B. to make holes oversize.
Option C. enlarge holes to accurate dimensions.
Correct Answer is. enlarge holes to accurate dimensions.
Explanation. Jeppesen A&P General Textbook 9-19.

Question Number. 17. The pitch of a hacksaw blade is.
Option A. its length.
Option B. the number of teeth on the blade.
Option C. the number of teeth per inch.
Correct Answer is. the number of teeth per inch.

Explanation. NIL.

Question Number. 18. The web angle of a normal twist drill is.
Option A. 59°.
Option B. 12°.
Option C. 130°.
Correct Answer is. 130°.
Explanation. Jeppesen A&P Airframe Textbook 2-27.

Question Number. 19. The leads of a bonding tester.
Option A. are interchangeable, one 60 foot long having two prongs and a 6 foot one with a single prong.
Option B. have critical lengths and the resistance of the leads is accounted for.
Option C. are supplied in 60 foot and 6 foot lengths but can be varied due to wear.
Correct Answer is. have critical lengths and the resistance of the leads is accounted for.
Explanation. CAIP S EEL/1-6 Para 3-11-2 & CAAIP S Leaflet 9.1 3.10.2(b).

Question Number. 20. Expanding reamers are used to.
Option A. ream holes of different diameters by adjusting the position of the blades.
Option B. ream tapered holes.
Option C. ream holes in metal that has been heated.
Correct Answer is. ream holes of different diameters by adjusting the position of the blades.
Explanation. Jeppesen A&P Technician General Textbook Page 9-19.

Question Number. 21. The main scale on a 24/25 vernier caliper is divided into.
Option A. inches, tenths and twentieths.
Option B. inches, tenths and fortieths.
Option C. inches, tenths and thousandths.
Correct Answer is. inches, tenths and fortieths.
Explanation. CAIP S BL/3-4 2.

Question Number. 22. The vernier height gauge uses the same principle as the.
Option A. vernier caliper.
Option B. bevel protractor.
Option C. micrometer.

Correct Answer is. vernier caliper.
Explanation. CAIP S BL/3-4 4.

Question Number. 23. One revolution of the thimble of the English micrometer produces a linear movement of the spindle of.
Option A. 0.001 inch.
Option B. 0.025 inch.
Option C. 0.040 inch.
Correct Answer is. 0.025 inch.
Explanation. CAIP S BL/3-5.

Question Number. 24. The pitch of a metric micrometer screw thread is.
Option A. 0.02 mm.
Option B. 1.0 mm.
Option C. 0.5 mm.
Correct Answer is. 0.5 mm.
Explanation. NIL.

Question Number. 25. When torque loading, a wrench should be selected where the required value falls.
Option A. at the top end of the range.
Option B. in the middle of the range.
Option C. at the bottom end of the range.
Correct Answer is. at the top end of the range.
Explanation. CAIP S BL/6-30 4.5.1.

Question Number. 26. The test equipment normally used to carry out a continuity test on an electrical cable is.
Option A. a high tension circuit tester.
Option B. an ammeter.
Option C. a low reading ohmmeter.
Correct Answer is. a low reading ohmmeter.
Explanation. CAIP EEL/1-6 4.2.1 & CAAIP S Leaflet 9-1 4.2.1.

Question Number. 27. If all three prongs on a bonding tester were shorted together, the metre would read.
Option A. FSD.
Option B. zero.
Option C. off-scale high.
Correct Answer is. zero.

Explanation. CAIP EEL/1-6 3.10.2b.

Question Number. 28. The pitch of the screw thread on an English micrometer is.
Option A. 0.0001 inches.
Option B. 0.050 inches.
Option C. 0.025 inches.
Correct Answer is. 0.025 inches.
Explanation. Jeppesen A&P General Textbook 9-36.

Question Number. 29. The vernier scale on an English caliper is divided into.
Option A. 50 equal divisions.
Option B.40 equal divisions.
Option C. 25 equal divisions.
Correct Answer is. 25 equal divisions.
Explanation. Jeppesen A&P General Textbook 9-36.

Question Number. 30. The thimble of a metric micrometer is divided into.
Option A. 50 equal divisions.
Option B. 40 equal divisions.
Option C. 25 equal divisions.
Correct Answer is. 50 equal divisions.
Explanation. NIL.

Question Number. 31. The measuring capacity of a Vernier Caliper is.
Option A. the length of the graduated scale less the length of the vernier scale.
Option B. the length of the graduated scale.
Option C. the length of the graduated scale plus the width of the nibs.
Correct Answer is. the length of the graduated scale less the length of the vernier scale.
Explanation. NIL.

Question Number. 32. Vee-blocks are manufactured.
Option A. as single items and may be paired with any other vee-block.
Option B. in sets of two and identified for use as a set.
Option C. in sets of three and identified for use as a set.
Correct Answer is. in sets of two and identified for use as a set.
Explanation. NIL.

Question Number. 33. The metric micrometer reading shown is.
Option A. 13.87 mm.
Option B. 13.37 mm.
Option C. 10.337 mm.
Correct Answer is. 13.37 mm.
Explanation. NIL.

Question Number. 34. A ketts saw is used because.
Option A. it can cut thicker metal than is required by most repair schemes.
Option B. it is available both pneumatic and electric.
Option C. its low torque allows single handed use.
Correct Answer is. it can cut thicker metal than is required by most repair schemes.
Explanation. Jeppesen A&P Airframe Textbook. It describes it as electrical, with the advantage of being able to cut sheet to 3/16 inch thick. Care to be taken to prevent blade from 'grabbing and kicking back'.

Question Number. 35. The gears used in a pistol windy are.
Option A. gears in a gearbox.
Option B. gyrator type gears.
Option C. spur gears.
Correct Answer is. spur gears.
Explanation. Sun and planet gear reduction, using spur gears.

Question Number. 36. Cross cut files.
Option A. cut on the backward stroke only.
Option B.cut in both directions.
Option C. cut on the forward stroke only.
Correct Answer is. cut on the forward stroke only.
Explanation. NIL.

Question Number. 37. The correct size spanner for use on a unified 5/16 in. threaded hexagon headed bolt is.
Option A. 5/16 in A/F.
Option B. 1/2 in A/F.
Option C. 1/4 in A/F.
Correct Answer is. 1/2 in A/F.
Explanation. NIL.

Question Number. 38. The length of the Vernier Scale in a 24/25 Vernier Caliper is.
Option A. 0.6 in.
Option B. 1.2 in.
Option C. 2.45 in.
Correct Answer is. 0.6 in.
Explanation. NIL.

Question Number. 39. What is used to measure the depth of a blend after a corrosion repair?.
Option A. Dial Test Indicator.
Option B. Straight edge and slip gauges.
Option C. Vernier caliper.
Correct Answer is. Dial Test Indicator.
Explanation. AL/7-14 Page 12. BL/4-20 Page 9.

Question Number. 40. Vacu-blast beads re-used on a steel component, after being used on an aluminum component will.
Option A. cause clogging of the vacu-blast machine.
Option B. be ineffective in abrasion.
Option C. cause corrosion to the steel component.
Correct Answer is. cause corrosion to the steel component.
Explanation. NIL.

Question Number. 41. The main scale on a 49/50 Vernier caliper is divided into.
Option A. inches, tenths and thousandths.
Option B. inches, tenths and twentieths.
Option C. inches, tenths and fortieths.
Correct Answer is. inches, tenths and twentieths.
Explanation. NIL.

Question Number. 42. Centre punches are made of.
Option A. high carbon steel with the tip hardened and tempered.
Option B. case hardened mild steel.
Option C. high carbon steel hardened and tempered.
Correct Answer is. high carbon steel hardened and tempered.
Explanation. The whole centre punch is hardened and tempered.

Question Number. 43. What type of flutes should be used in a reamer for cutting titanium?.
Option A. Spiral flutes.
Option B. Straight flutes.
Option C. Tapered flutes.
Correct Answer is. Spiral flutes.
Explanation. BL/6-18 7.1.

Question Number. 44. The depth micrometer reading shown is.
Option A. 0.261 ins.
Option B. 0.361 ins.
Option C. 0.336 ins.
Correct Answer is. 0.261 ins.
Explanation. NIL.

Question Number. 45. What should be the included angle of a twist drill for soft metals?.
Option A. 118 degrees.
Option B. 65 degrees.
Option C. 90 degrees.
Correct Answer is. 90 degrees.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 2-27.

Question Number. 46. What should the point angle of a drill be if it is to be used for drilling titanium (drill size below 1/4 inch diameter)?
Option A. 90° to 105°.
Option B. 105 to 120°.
Option C. 90°.
Correct Answer is. 105 to 120°.
Explanation. BL/6-18 6.

Question Number. 47. How are pin punches classified?.
Option A. By length and diameter of the small end.
Option B. By overall length and type.
Option C. By type and diameter of the small end.
Correct Answer is. By type and diameter of the small end.
Explanation. How are spring dividers classified?.

Question Number. 48. The length of the legs.
Option A. The length of the legs.

Option B. The diameter of a circle scribed with the legs at 600.
Option C. The diameter of the largest circle that can be scribed.
Correct Answer is. The length of the legs.
Explanation. NIL.

Question Number. 49. The purpose of a taper tap is to.
Option A. produce a fine thread.
Option B. start a thread.
Option C. form a tapered thread.
Correct Answer is. start a thread.
Explanation. NIL.

Question Number. 50. Why is the Vee cut in the base of a scribing block?.
Option A. to reduce the contact area with the marking off table and reduce friction.
Option B. to allow the scribing block to be used on the edge of the marking off table.
Option C. to trap any dirt that may be adhering to the surface of the marking off table.
Correct Answer is. to trap any dirt that may be adhering to the surface of the marking off table.
Explanation. NIL.

Question Number. 51. An inside micrometers normal measurement range is.
Option A. ½ in. to 10in.
Option B. 2in. to 10in.
Option C. 2in. to 12in.
Correct Answer is. 2in. to 12in.
Explanation. BL/3-5 para 3.2 under Note.

Question Number. 52. What is the purpose of Target Points on a Vernier caliper?.
Option A. To enable spring dividers to be accurately set.
Option B. To zero the caliper.
Option C. For scribing lines inside tubes.
Correct Answer is. To enable spring dividers to be accurately set.
Explanation. BL/3-4 3.6.

Question Number. 53. Die Nuts are used to.
Option A. form internal threads.

Option B. form external threads.
Option C. clean up damaged threads.
Correct Answer is. clean up damaged threads.
Explanation. NIL.

Question Number. 54. A Dial Test Indicator may be used for.
Option A. checking a round bar for bow.
Option B. checking dimensions to within 0.125".
Option C. checking any known depth.
Correct Answer is. checking a round bar for bow.
Explanation. EL/3-3 fig 1.

Question Number. 55. Which cut of a file should be used on mild steel?.
Option A. Single cut.
Option B. Double cut.
Option C. Second cut.
Correct Answer is. Double cut.
Explanation. NIL.

Question Number. 56. Which of the following statements is correct?.
Option A. To cut thin mild steel plate use a coarse blade.
Option B. To cut an aluminum block use a fine hacksaw blade.
Option C. To cut thin sheet metal use a fine blade.
Correct Answer is. To cut thin sheet metal use a fine blade.
Explanation. AC65-9A Chapt 12-Metal Cutting Tools.

Question Number. 57. A power meter indicates that a circuit has a power of 4 kW. Separate readings of the voltage and current are 400 V and 20 A respectively. The Power factor is.
Option A. 2.
Option B. ½.
Option C. 20.
Correct Answer is. ½.
Explanation. PF = TP/AP TP = 4,000 AP = 20 * 400 = 8000 4000/8000 = 1/2.

Question Number. 58. What is a key-seat rule used for?.
Option A. Marking lines which are parallel to a true edge.
Option B. Marking lines parallel to an axis of a round bar.
Option C. Providing a positive driving force.
Correct Answer is. Marking lines parallel to an axis of a round bar.

Explanation. NIL.

Question Number. 59. When measuring current in a circuit, the ammeter is placed.
Option A. in series with the circuit.
Option B. in series with the shunt.
Option C. in parallel with the circuit.
Correct Answer is. in series with the circuit.
Explanation. NIL.

Question Number. 60. A 3 ½ bit multimeter will indicate readings up-to.
Option A. 9999.
Option B. 999 ½.
Option C. 1999.
Correct Answer is. 1999.
Explanation. A&P General Textbook CH3-109 PG 167 Para 2A, and Eismin Aircraft Electricity and Electronics 5th edition P171.

Question Number. 61. The resolution a bevel protractor can be read to is.
Option A. 50' minutes.
Option B. 5' minutes.
Option C. 1 º.
Correct Answer is. 5' minutes.
Explanation. BL/3-4 5.2.

Question Number. 62. If an English micrometer is showing 4 main divisions, 3 sub-divisions and the 25th thimble division was in line, what would the reading be?.
Option A. 0.475 in.
Option B. 0.175 in.
Option C. 0.555 in.
Correct Answer is. 0.475 in.
Explanation. BL/3-5 Para 2.3, 4.1.2.

Question Number. 63. An open circuit on an ohmmeter would be indicated by a reading of.
Option A. infinite resistance.
Option B. zero resistance.
Option C. a negative resistance.
Correct Answer is. infinite resistance.

Explanation. Eismin Aircraft Electricity and Electronics P165/166.

Question Number. 64. The leads of an ohmmeter should be replaced if their resistance is greater than.
Option A. 0.5 ohms.
Option B. 1 ohm.
Option C. 0.05 ohms.
Correct Answer is. 1 ohm.
Explanation. NIL.

Question Number. 65. Torque loading is determined by multiplying the tangent force applied at the free end of the spanner.
Option A. by the dia. of the bolt and the distance of its point of application.
Option B. by the distance moved by the point of application.
Option C. by its distance of application from the axis of the bolt.
Correct Answer is. by its distance of application from the axis of the bolt.
Explanation. Leaflet 2-11 pg 3 para 4.2.

Question Number. 66. Which electrical measuring device needs a power source?.
Option A. A voltmeter.
Option B. An ohmmeter.
Option C. An ammeter.
Correct Answer is. An ohmmeter.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 165.

Question Number. 67. When measuring voltage or current with a digital multimeter, the indication is.
Option A. Average values.
Option B. peak values.
Option C. RMS values.
Correct Answer is. RMS values.
Explanation. A&P General Textbook Page 3-94. DMMs are 'Average-Responding' meaning they read RMS if AC.

Question Number. 68. On a multimeter, what color lead is connected to the Common socket?.
Option A. Green.
Option B. Red.
Option C. Black.

Correct Answer is. Black.
Explanation. Jeppesen A&P General Technician Textbook Page 3-94 fig 3-201 and fig 3-202.

Question Number. 69. The Vernier scale of a Bevel Protractor is shown below. What is the reading?.
Option A. 38º 45'minutes.
Option B. 86º 15'minutes.
Option C. 63º 15' minutes.
Correct Answer is. 63º 15' minutes.
Explanation. NIL.

Question Number. 70. Three point micrometers are for measuring.
Option A. internal dimensions.
Option B. external dimensions.
Option C. linear dimensions.
Correct Answer is. internal dimensions.
Explanation. BL/3-5 3.4.

Question Number. 71. When is a coarse hacksaw blade used?.
Option A. When cutting material of thick cross section.
Option B. When cutting ferrous metals only.
Option C. When cutting material of thin cross section.
Correct Answer is. When cutting material of thick cross section.
Explanation. Jeppesen A&P General Technician Textbook Page 9-13.

Question Number. 72. A voltage drop across a component is measured by placing the meter in.
Option A. parallel with the component.
Option B. series with he component.
Option C. series with the power source.
Correct Answer is. parallel with the component.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 164 and CAAIP S Leaflet 9-1, 4.3.

Question Number. 73. Which of the following reamers would you use in a hole having a keyway?.
Option A. Expanding reamer.
Option B. Spiral fluted reamer.
Option C. Parallel reamer.

Correct Answer is. Spiral fluted reamer.
Explanation. NIL.

Question Number. 74. What is the purpose of a Morse taper on large sizes of twist drills?.
Option A. To allow the drills to be fitted to a drilling machine.
Option B. To ensure that the drill is fitted correctly.
Option C. To give a positive drive when fitted into a tapered chuck.
Correct Answer is. To give a positive drive when fitted into a tapered chuck.
Explanation. NIL.

Question Number. 75. What should be the included angle of a twist drill for hard metal?.
Option A. 90 degrees.
Option B. 100 degrees.
Option C. 118 degrees.
Correct Answer is. 118 degrees.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 2-27.

Question Number. 76. The threads per inch on the spindle of an English micrometer are.
Option A. 40 t.p.i.
Option B. 50 t.p.i.
Option C. 25 t.p.i.
Correct Answer is. 40 t.p.i.
Explanation. BL/3-5 4.1.

Question Number. 77. The spring loaded ratchet attached to the spindle of a standard external micrometer produces.
Option A. a pre-set feel during use.
Option B. a means for controlling thread binding.
Option C. a smooth free run during use.
Correct Answer is. a pre-set feel during use.
Explanation. BL/3-5 2.2.

Question Number. 78. The purpose of the land on a twist drill is to.
Option A. to allow clearance for swarf.
Option B. reduce friction.
Option C. present the cutting edge at the required angle.
Correct Answer is. reduce friction.

Explanation. Jeppesen A&P Airframe Technician Textbook Page 2-27.

Question Number. 79. The name given to the moving scale on the Vernier caliper is.
Option A. the main scale.
Option B. the vernier scale.
Option C. the cursor.
Correct Answer is. the vernier scale.
Explanation. BL/3-4 fig 2 (although the whole moving frame - which has the scale - is called the cursor).

Question Number. 80. What is the reading of the Vernier caliper scale in inches shown below?.
Option A. 0.1816.
Option B. 1.816.
Option C. 1.8016.
Correct Answer is. 1.816.
Explanation. BL/3-4 2.5 and fig 1.

Question Number. 81. What does the cut of a file refer to?.
Option A. Arrangement of the teeth.
Option B. Number of teeth per inch.
Option C. Grade.
Correct Answer is. Arrangement of the teeth.
Explanation. A&P Technician Airframe Textbook Page 220.

Question Number. 82. Why are teeth of hacksaw blades off-set?.
Option A. To allow a quick cutting positive action.
Option B. To provide greater strength.
Option C. To provide clearance for non-cutting part of the blade.
Correct Answer is. To provide clearance for non-cutting part of the blade.
Explanation. NIL.

Question Number. 83. How are files classified?.
Option A. By length, grade and material.
Option B. By length, grade, cut and section.
Option C. By length, grade, cut, section and material.
Correct Answer is. By length, grade, cut and section.
Explanation. NIL.

Question Number. 84. Hammers are classified by.
Option A. shape of head and length of shaft.
Option B. weight and length of shaft.
Option C. weight and type of head.
Correct Answer is. weight and type of head.
Explanation. NIL.

Question Number. 85. What does the term 'second cut' indicate as applied to hand files?.
Option A. The grade of the file.
Option B. The section of the file.
Option C. A reconditioned file.
Correct Answer is. The grade of the file.
Explanation. NIL.

Question Number. 86. What comprises a full set of BA taps?.
Option A. A taper, second and plug tap.
Option B. A taper and second tap.
Option C. A taper and plug tap.
Correct Answer is. A taper and plug tap.
Explanation. Most tap sets are sets of 3. Except BA tap sets which do not have a second tap.

Question Number. 87. The teeth on a hacksaw blade.
Option A. does not matter which way they point.
Option B. should point away from the handle.
Option C. should point towards the handle.
Correct Answer is. should point away from the handle.
Explanation. NIL.

Question Number. 88. What is the clearance angle on a normal twist drill?.
Option A. 130 degrees.
Option B. 59 degrees.
Option C. 12 degrees.
Correct Answer is. 12 degrees.
Explanation. NIL.

Question Number. 89. When tapping blind holes.
Option A. a set of three taps is used.
Option B. a set of two taps is used.

Option C. a single tap is used.
Correct Answer is. a set of three taps is used.
Explanation. NIL.

Question Number. 90. On a torque wrench the torque loading is.
Option A. the tangential application of the force divided by the perpendicular distance to the centre of the bolt.
Option B. the tangential application of the force times the perpendicular distance to the centre of the bolt.
Option C. the tangential application of the force plus the perpendicular distance to the centre of the bolt.
Correct Answer is. the tangential application of the force times the perpendicular distance to the centre of the bolt.
Explanation. Leaflet 2-11 pg 3 para 4.2.

Question Number. 91. Surface Plates are used.
Option A. for marking out work and testing flat surfaces.
Option A. for filing flat surfaces.
Option A. only on surface tables.
Correct Answer is.for marking out work and testing flat surfaces.
Explanation. NIL.

Question Number. 92. The main scale of a Metric Vernier Caliper is calibrated in.
Option A. millimetres.
Option B. micro-meters.
Option C. millimetres and half millimetres.
Correct Answer is. millimetres and half millimetres.
Explanation. BL/3-4 2.5.1

Question Number. 93. For a drill to cut properly it is essential that the point angle be the same on each side, for general use the angle is.
Option A. 12°.
Option B. 130°.
Option C. 59°.
Correct Answer is. 59°.
Explanation. Jeppesen A & P Technician Airframe page 2-27.

Question Number. 94. The pitch of a hacksaw blade is.
Option A. the number of teeth per inch.

Option B. its length.
Option C. the number of teeth on the blade.
Correct Answer is. the number of teeth per inch.
Explanation. NIL.

Question Number. 95. When using a bench grinding machine the wheel rotates.
Option A. from the top down towards the work piece.
Option B. either direction as selected on starting the machine.
Option C. from the bottom upwards past the work piece.
Correct Answer is. from the top down towards the work piece.
Explanation. NIL.

Question Number. 96. The thimble of an English micrometer is divided into.
Option A. 50 equal divisions.
Option B. 40 equal divisions.
Option C. 25 equal divisions.
Correct Answer is. 25 equal divisions.
Explanation. BL/3-5 fig 1.

Question Number. 97. The reading on the inch micrometer scale shown is.
Option A. 0.483 ins.
Option B. 0.488 ins.
Option C. 4.758 ins.
Correct Answer is. 0.483 ins.
Explanation. BL/3-5.

Question Number. 98. The vernier height gauge uses the same principle as.
Option A. the vernier caliper.
Option B. the micrometer.
Option C. the bevel protractor.
Correct Answer is. the vernier caliper.
Explanation. BL/3-4 4.

Question Number. 99.The pitch of the screw thread on an English micrometer is.
Option A. 0.050 in.
Option B.0.001 in. **Option C.** 0.025 in.
Correct Answer is. 0.025 in.
Explanation. BL/3-5 4.1.

Question Number. 100. An avometer can measure alternating current because it has a.
Option A. moving coil.
Option B. bridge rectifier circuit.
Option C. moving iron.
Correct Answer is. bridge rectifier circuit.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 113 and 167 read together.

Question Number. 101. Taper reamers are classified by.
Option A. a type number (1 to 10).
Option B. the diameter of the small end.
Option C. the diameter of the large end.
Correct Answer is. a type number (1 to 10).
Explanation. Taper reamers are classified by a type number 1- 10.

Question Number. 102. A crimped electrical connection is suspected to be high resistance. How would you verify this without disconnecting the circuit?.
Option A. Measure the millivolt drop across the connection with a millivolt meter.
Option B. Measure the resistance with an ohmmeter.
Option C. Measure the resistance with a 250 volt megger.
Correct Answer is. Measure the millivolt drop across the connection with a millivolt meter.
Explanation. EEL/1-6 4.3.

Question Number. 103. How would you measure continuity of a coaxial cable?.
Option A. With a safety ohmmeter.
Option B. With a reflectometer.
Option C. With a 250 volt megger.
Correct Answer is. With a reflectometer.
Explanation. Other versions of this question say Time Domain Reflectometer, or Time Delay Reflectometer.

Question Number. 104. On a long coaxial cable how would you check for discontinuities and shorts in situ?.
Option A. Continuity tester.
Option B. Safety ohmmeter.
Option C. Time Domain Reflectometer.
Correct Answer is. Time Domain Reflectometer.

Explanation. A TDR will find damaged bits of long coax runs. One version of this question says Time 'Delay' Reflectometer - which means the same thing.

Question Number. 105. If the leads of a bonding tester are damaged, what is the procedure?.
Option A. The damaged leads and the tester should be returned to the manufacturer for repair and calibration.
Option B. Provided that the damage is situated close to the end of the leads the cable may be shortened.
Option C. A new lead may be manufactured using the correct current rated cable.
Correct Answer is. The damaged leads and the tester should be returned to the manufacturer for repair and calibration.
Explanation. Leaflet 9-1 3.1.1. & EEL/1-6 Para 3.11.2.

Question Number. 106. When carrying out a continuity test on a circuit when a known resistance exists, what instrument would you use?.
Option A. A lamp and battery.
Option B. A high resistance insulation tester.
Option C. A multimeter.
Correct Answer is. A multimeter.
Explanation. NIL.

Question Number. 107. Taper pins are classified by.
Option A. length and diameter of large end.
Option B. length and diameter of small end.
Option C. length and taper.
Correct Answer is. length and diameter of small end.
Explanation. Leaflet 2-5 11. BL/6-13 11.

Question Number. 108. Live AC circuits are to be checked for open circuits by the use of.
Option A. multimeter set to AC volts.
Option B. ammeter set to amps.
Option C. ohmmeter set to megohms.
Correct Answer is. multimeter set to AC volts.
Explanation. A voltmeter would be used because it does not require the breaking of the circuit.

Question Number. 109. A multiplier resistance is used to extend the working range of the.
Option A. ammeter.
Option B. voltmeter.
Option C. ohmmeter.
Correct Answer is. voltmeter.
Explanation. Multipliers are used with voltmeters. A&P Airframe Technician Textbook.

Question Number. 110. On twist drill chart, small drills have.
Option A. smallest numbers.
Option B. largest numbers.
Option C. their sizes in fractions, in inches.
Correct Answer is. largest numbers.
Explanation. Numbered drill go from 80 (0.0135 inches - smallest) to 1 (0.228 inches - largest) and are then lettered.

Question Number. 111. The Sine Bar is used to.
Option A. check accuracy of slip gauges.
Option B. produce angles using slip gauges.
Option C. by itself to calculate angles.
Correct Answer is. produce angles using slip gauges.
Explanation. Workshop Technology Part 2 WAJ Chapman Pg.57.

Question Number. 112. On a vernier micrometer, what will three turns of the barrel represent?.
Option A. 0.075 inch.
Option B. 0.100 inch.
Option C. 0.050 inch.
Correct Answer is. 0.075 inch.
Explanation. One full turn of a vernier micrometer thimble is 0.025 inch.

Question Number. 113. How does a windy drill get its power?
Option A. Spur gears.
Option B. Impeller.
Option C. Bevel gears.
Correct Answer is. Impeller.
Explanation. Windy drills have an impeller to derive power from the air pressure.

Question Number. 114. How are taper reamers classified?.
Option A. Length, diameter of large end, and diameter of small end.
Option B. Taper and diameter of small end.
Option C. Length and diameter of large end.
Correct Answer is. Length and diameter of large end.
Explanation. Taper reamers are normally classified by a number 1-10, but if not, by diameter of large end.

Question Number. 115. An AC voltmeter reads.
Option A. peak value.
Option B. peak to peak value.
Option C. average value.
Correct Answer is. average value.
Explanation. An AC voltmeter (known as Average Responding) measures RMS.

Question Number. 116. A hydrometer is used to.
Option A. check battery electrolyte specific gravity.
Option B. check battery electrolyte density.
Option C. take humidity reading.
Correct Answer is. check battery electrolyte specific gravity.
Explanation. Specific gravity is the density relative to water at 4 degrees C.

Question Number. 117. A pyrometer is a.
Option A. thermometer for use at high temperature.
Option B. pyramid shaped altimeter.
Option C. foam/granule fire extinguisher.
Correct Answer is. thermometer for use at high temperature.
Explanation. A pyrometer measures high temperature.

Question Number. 118. A hygrometer is used to.
Option A. check battery electrolyte relative density.
Option B. take humidity reading.
Option C. check battery electrolyte specific gravity.
Correct Answer is. take humidity reading.
Explanation. A hygrometer measures humidity.

Question Number. 120. To measure AC with a moving coil, it.
Option A. can be directly connected.
Option B. is rectified and measures peak value.

Option C. is rectified and measures average value.
Correct Answer is. is rectified and measures average value.
Explanation. Also known as a D'Arsonval meter. See Jeppesen A&P General Textbook Section 3. Note that the word 'Average' is incorrect because the meter reads RMS, but average is the closest of the three answers.

Question Number. 121. What is a countersink tool used for?.
Option A. To prevent damage to pipework in a blind hole.
Option B. To adjust the depth of a countersink.
Option C. To adjust the angle of a countersink.
Correct Answer is. To adjust the depth of a countersink.
Explanation. The countersink tool is to cut and adjust depths of the countersink.

Question Number. 122. PIDG crimp tools are marked by.
Option A. wire crimp size on tool only.
Option B. coloured handles and wire crimp size on tool.
Option C. coloured handles only.
Correct Answer is. coloured handles and wire crimp size on tool.
Explanation. Leaflet 9-3 fig 2. Handles are red, blue or yellow and the AWG is stamped on the jaws.

Question Number. 123. When measuring a square waveform with a multimeter, what voltage does it display?.
Option A. Less than RMS value.
Option B. More than RMS value.
Option C. Equal to RMS value.
Correct Answer is. Equal to RMS value.
Explanation. A multimeter measures RMS of whatever waveform it is measuring.

Question Number. 124. If an ammeter reads 0 - 1mA FSD, what would you be required to do to enable it to read 10mA FSD?.
Option A. Place a 5.8 ohm resistor as a shunt in parallel with the meter.
Option B. Place a 9.9 ohm resistor across the coils.
Option C. Place a 9 ohm resistor in series with the meter.
Correct Answer is. Place a 5.8 ohm resistor as a shunt in parallel with the meter.
Explanation. No calculation necessary (nor possible, with information given). A shunt is used with an ammeter to bypass unwanted current.

Question Number. 125. The internal resistance of a voltmeter is.
Option A. no more than 0.05 ohms.
Option B. low.
Option C. high.
Correct Answer is. high.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 164.

Question Number. 126. The internal resistance of an ammeter is.
Option A. low.
Option B. 1 ohm.
Option C. high.
Correct Answer is. low.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 162.

Question Number. 127. A drill bit of 0.250 inch would be.
Option A. 7/32 and letter G.
Option B. 8/32 and letter E.
Option C. 6/32 and letter F.
Correct Answer is. 8/32 and letter E.
Explanation. See a drill chart.

Question Number. 128. Needle grease points are used on.
Option A. items with gland seals.
Option B. small pivoted joints.
Option C. large pivoted joints.
Correct Answer is. small pivoted joints.
Explanation. Needle grease points are flush grease nipples which require a pointed adapter on the grease gun.

Question Number. 129. A flat chisel being used for aluminum should have a point angle of.
Option A. 65 degrees.
Option B. 30 degrees.
Option C. 55 degrees.
Correct Answer is. 30 degrees.
Explanation. NIL.

Question Number. 130. A mill file can be used for.
Option A. corners less than 60 degrees.
Option B. saw sharpening.

Option C. general purpose.
Correct Answer is. saw sharpening.
Explanation. External document. http://www.rockler.com/tech/12369.pdf

Question Number. 131. A rawhide mallet is.
Option A. available with copper inserts.
Option B. less expensive than bossing mallet.
Option C. used for giving softer blows than boxwood mallet.
Correct Answer is. used for giving softer blows than boxwood mallet.
Explanation. NIL.

Question Number. 132. Tension files.
Option A. can be used to cut in one direction only.
Option B. clog easily.
Option C. can cut in either direction.
Correct Answer is. can cut in either direction.
Explanation. Also known as an ABRAFILE.

Question Number. 133. The scale on an ohmmeter is.
Option A. cramped at high resistance.
Option B. linear.
Option C. cramped at low resistance.
Correct Answer is. cramped at high resistance.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 169 photo, fig 8-26.

Question Number. 134. Three revolutions of a 40 T.P.l. micrometer will show.
Option A. 0.03 inch.
Option B. 0.075 inch.
Option C. 0.003 inch.
Correct Answer is. 0.075 inch.
Explanation. 0.025 inch * 3 = 0.075.

Question Number. 135. To carry out a continuity test you would use.
Option A. ammeter.
Option B. an HT circuit tester.
Option C. a low reading ohmmeter.
Correct Answer is. a low reading ohmmeter.
Explanation. NIL.

Question Number. 136. What is the resolution of a standard DTI?.
Option A. 0.020 mm.
Option B. 0.050 mm.
Option C. 0.010 mm.
Correct Answer is. 0.010 mm.
Explanation. Some modern DTIs can do 1/10th of that.

Question Number. 137. In a moving coil meter the deflecting force is provided by.
Option A. a soft iron permanent magnet.
Option B. a current carrying coil pivoted in a permanent magnet field.
Option C. hairsprings which move the pointer towards full scale.
Correct Answer is. a current carrying coil pivoted in a permanent magnet field.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 159.

Question Number. 138. The force acting on a meter which returns the pointer to zero is called the.
Option A. turning force.
Option B. deflecting force.
Option C. controlling force.
Correct Answer is. controlling force.
Explanation. NIL.

Question Number. 139. The forces acting on a meter which moves the pointer over the scale is called.
Option A. the controlling force.
Option B. the turning force.
Option C. the deflecting force.
Correct Answer is. the deflecting force.
Explanation. NIL.

Question Number. 140. The resistance of an ammeter must be.
Option A. high to create a large volts drop across it.
Option B. low to prevent volts drop across it.
Option C. low because the ammeter is in parallel with the circuit.
Correct Answer is. low to prevent volts drop across it.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 162/3.

Question Number. 141. The resistance of a voltmeter must be.

Option A. high so that little current passes through it.
Option B. low to prevent overloading the circuit.
Option C. low to provide a parallel path for the circuit current.
Correct Answer is. high so that little current passes through it.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 164.

Question Number. 142. When operating a grease gun, you.
Option A. verify grease fitting can accept grease by hand feel.
Option B. apply a pressure of 50 - 80 psi.
Option C. clean grease fitting with clean dry cloth beforehand.
Correct Answer is. clean grease fitting with clean dry cloth beforehand.
Explanation. NIL.

04. Avionic General Test Equipment.

Question Number. 1. A fuel quantity test set has an externally adjustable.
Option A. capacitor.
Option B. inductor.
Option C. resistor.
Correct Answer is. resistor.
Explanation. AL/10-3 8.2.6.

Question Number. 2. How would you test a mach switch in-situ?.
Option A. Use built in test equipment.
Option B. Use an external test kit.
Option C. It is not possible to test a mach switch in situ.
Correct Answer is. Use built in test equipment.
Explanation. NIL.

Question Number. 3. The maximum value of bonding of a secondary structure is.
Option A. 1 megohm.
Option B. 1 ohm.
Option C. 1 kilohm.
Correct Answer is. 1 ohm.
Explanation. CAIP S EEL/1-6 Para 3-8.

Question Number. 4. Circuit tests on aircraft should be carried out in the following order:

Option A. bonding, continuity, insulation, functional.
Option B. continuity, bonding, functional, insulation.
Option C. functional, bonding, continuity, insulation.
Correct Answer is. bonding, continuity, insulation, functional.
Explanation. Code to remember, B C I F.

Question Number. 5. Before using a dead weight tester you would.
Option A. calibrate the tester using a standard weight.
Option B. pressurize the tester to the required pressure.
Option C. replace the oil.
Correct Answer is. pressurize the tester to the required pressure.
Explanation. The dead weight tester is first pumped up to the required pressure (platform/weights floating) then gauge under test is connected.

Question Number. 6. How should a dead weight tester be used?.
Option A. The pressure increasing handle should be screwed in before the addition of fluid and screwed out when fluid is added.
Option B. The outlet should not be connected to the instrument until the required weights are raised by the platform.
Option C. The platform should be removed and fluid poured into the hole.
Correct Answer is. The outlet should not be connected to the instrument until the required weights are raised by the platform.
Explanation. Handle is wound in until the weights are floating, then the outlet pressure is slowly released to the gauge under test.

Question Number. 7. When testing thermocouples using a test set the ambient temperature.
Option A. never needs to be considered.
Option B. is considered every time.
Option C. is only considered when temperatures of 20°C or above.
Correct Answer is. is considered every time.
Explanation. AL/10-3 11.11.1. To test the system the test set has to be trimmed for ambient temperature, as the system when in operation is adjusted for ambient temperature by the compensating resistor. This is clearly stated in the B 737 AMM.

Question Number. 8. Electronic test equipment for fuel tank contents systems usually incorporate variable.
Option A. resistors.

Option B. inductors.
Option C. capacitors.
Correct Answer is. capacitors.
Explanation. NIL.

Question Number. 9. Before using a bonding tester, the 6 foot lead has the two prongs shorted together with a piece of metal. What would the indicator read?.
Option A. Full scale left.
Option B. Full scale right.
Option C. Zero at the centre.
Correct Answer is. Full scale right.
Explanation. Leaflet 9-1 3.10.2 a Infinity is full scale to the right.

Question Number. 10. When using a megger to test insulation resistance, capacitive filters should be disconnected for what reason?.
Option A. Remove the risk of damage to the megger.
Option B. Remove the spurious readings caused by the capacitors charging and discharging.
Option C. Prevent damage to the filters.
Correct Answer is. Prevent damage to the filters.
Explanation. Leaflet 9-1 4.4.4 e AandP Mechanics General Handbook Pg 351.

Question Number. 11. When carrying out a serviceability check on a bonding tester - short together the three prongs of both probes and ensure which of the following?.
Option A. The meter reads 0.1 ohm.
Option B. A zero reading.
Option C. A full scale reading is obtained.
Correct Answer is. A zero reading.
Explanation. Leaflet 9-1 3.10.2 (b).

Question Number. 12. If an insulation resistance tester is operated and the leads are suspended in free air, what will the meter read?.
Option A. Zero.
Option B. Mid scale - it is a ratiometer movement and there is no current flowing in the external circuit.
Option C. Infinity.
Correct Answer is. Infinity.
Explanation. NIL.

Question Number. 13. When using a digital meter to test a diode, a correct operation of the diode is indicated by a volt drop of.
Option A. 0.3V to 0.7V.
Option B. 2.5V to 2.8V.
Option C. 1.5V to 2V.
Correct Answer is. 0.3V to 0.7V.
Explanation. Forward voltage drop of a diode is 0.2V (germanium) or 0.6V (silicon).

Question Number. 14. To check that the ident pulse is being generated from an ATC transponder,.
Option A. select an ATC channel and check the morse code.
Option B. select ident and check the indication on the instrument panel.
Option C. press the ident and monitor the indication on the ramp test set.
Correct Answer is. press the ident and monitor the indication on the ramp test set.
Explanation. The ident is a button on the transponder panel, which, when pressed, causes the indication on the ATCs radar screen to 'bloom'.

Question Number. 15. A pressure gauge is fitted to a Dead Weight Tester. The piston area is 0.25 sq.in. and the total mass of the mass carrier and masses is 5lb. If the pressure gauge is accurate what pressure in pounds per square inch (PSI) will it read?.
Option A. 1.25 psi.
Option B. 20 psi.
Option C. 200 psi.
Correct Answer is. 20 psi.
Explanation. Pressure = Force / Area = 5/0.25 = 20 PSI.

Question Number. 16. When testing a fuel metering unit, how is it checked?.
Option A. With the meter in series with the unit.
Option B. With the unit disconnected.
Option C. With the meter in parallel with the unit.
Correct Answer is. With the meter in series with the unit.
Explanation. A fuel metering unit is checked with the fuel meter in series with the meter under test. No reference found.

Question Number. 17. When using a bonding tester.
Option A. ensure prongs penetrate anodised layer.
Option B. ensure prongs do not penetrate anodising layer.

Option C. an anodised component cannot be tested.
Correct Answer is. ensure prongs penetrate anodised layer.
Explanation. Leaflet 9-1 Para.3.10.6.

Question Number. 18. On a static leak tester, pressure is released by.
Option A. an internal balance valve in the tester.
Option B. slowly opening the release knob for 3 minutes.
Option C. a bleed valve in the tester.
Correct Answer is. slowly opening the release knob for 3 minutes.
Explanation. The pressure in the pitot/static leak tester must be released slowly.

Question Number. 19. A fuel calibration test set when used to check an aircraft with half a fuel load is connected.
Option A. to gauge with fuel level in parallel.
Option B. to gauge with fuel level capacitance.
Option C. to gauge with fuel level in series.
Correct Answer is. to gauge with fuel level in series.
Explanation. The test set is connected in series with the fuel level conditioner.

Question Number. 20. A capacitive fuel contents system should be tested with.
Option A. a ratiometer.
Option B. a Wheatstone bridge.
Option C. a decade box.
Correct Answer is. a Wheatstone bridge.
Explanation. By elimination.

Question Number. 21. Continuity of a fibreoptic cable is tested with a.
Option A. light source and optometer.
Option B. multimeter.
Option C. calibrated light generator and opto-power meter.
Correct Answer is. calibrated light generator and opto-power meter.
Explanation. External website.
http://www.tpub.com/neets/tm/109-13.htm

Question Number. 22. When using transistorized test equipment, what should the output be?.
Option A. Not affected by impedance.
Option B. High impedance.
Option C. Low impedance.
Correct Answer is. Low impedance.

Explanation. Transistorised equipment generally has a high input impedance and a low output impedance.

Question Number. 23. To read the transponder coding from an aircraft's transponder you.
Option A. use the code signal and a chart to determine the signal.
Option B. use a ATC600 test set.
Option C. use the output on the flight deck.
Correct Answer is. use a ATC600 test set.
Explanation. Jeppesen Aircraft Radio Systems - Powell Page 136/7.

Question Number. 24. Bonding lead testers are attached with.
Option A. a 60 feet lead is connected to the main earth and a 6 foot test lead is connected to check the resistance between selected points.
Option B. a 6 feet test lead is connected to the main earth and a 60 feet lead is connected to check the resistance between selected points.
Option C. either of the leads can be connected anywhere.
Correct Answer is. a 60 feet lead is connected to the main earth and a 6 foot test lead is connected to check the resistance between selected points.
Explanation. Leaflet 9-1 3.10.3.

Question Number. 25. On a Bonding Tester the number of probes on the 60 ft and 6ft leads respectively are.
Option A. 1 and 2.
Option B. 2 and 2.
Option C. 2 and 1.
Correct Answer is. 1 and 2.
Explanation. Leaflet 9-1 3.10.

Question Number. 26. The damping force in a meter.
Option A. prevents oscillation of the pointer.
Option B. returns the pointer to zero.
Option C. assists the pointer to move over the scale.
Correct Answer is. prevents oscillation of the pointer.
Explanation. NIL.

Question Number. 27. On a VOR/ILS test set the 'Tone Delete' function.
Option A. functionally checks that the glideslope pointer moves down-scale.
Option B. functionally checks that the glideslope failure flag operates.

Option C. functionally checks that the glideslope pointer moves up-scale.
Correct Answer is. functionally checks that the glideslope failure flag operates.
Explanation. The Tone Delete tests the flag.

05. Engineering Drawings, Diagrams and Standards.

Question Number. 1. What is third angle projection?.
Option A. each view represents the side of the object furthest from the adjacent view.
Option B. each view represents the side of the object nearest to it in the adjacent view.
Option C. each view is at an angle of 30 degrees to the plane of projection.
Correct Answer is. each view represents the side of the object nearest to it in the adjacent view.
Explanation. CAAIP S leaflet 2.1 page 7 para 5.3.1.

Question Number. 2. This drawing indicates.
Option A. a countersunk hole.
Option B. a blind tapped hole.
Option C. a counterbored hole.
Correct Answer is. a blind tapped hole.
Explanation. CAAIP S Leaflet 2-1 Table 3.

Question Number. 3. The width of a visible outline on a drawing is.
Option A. 0.3 mm.
Option B. 0.7 mm.
Option C. 0.5 mm.
Correct Answer is. 0.7 mm.
Explanation. CAAIP S Leaflet 2-1 5.2.

Question Number. 4. What does GA stand for on a drawing?.
Option A. General assembly.
Option B. General arrangement.
Option C. Gradient Axis.
Correct Answer is. General arrangement.
Explanation. NIL.

Question Number. 5. Design drawings of aircraft components are produced by organizations approved by.
Option A. SBAC.

Option B. British Standards Institute.
Option C. CAA in accordance with the BCARs.
Correct Answer is. CAA in accordance with the BCARs.
Explanation. NIL.

Question Number. 6. This symbol found on an engineering drawing would mean.
Option A. cylindricity.
Option B. angularity.

Option C. concentricity.
Correct Answer is. angularity.
Explanation. Leaflet 2-1 5.6.

Question Number. 7. Which pictorial projection shows one face in true elevation and line of depth normally draw at 30° or 45° to the horizontal?.
Option A. Oblique.
Option B. Perspective.
Option C. Isometric.
Correct Answer is. Oblique.
Explanation. NIL.

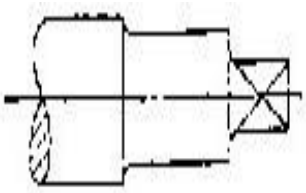
Question Number. 8. If a design amendment is made on a drawing.
Option A. a new issue number and date must be allocated to the drawing.
Option B. the old issue number is retained, with the amendment date added.
Option C. no change in issue number or date is necessary.
Correct Answer is. a new issue number and date must be allocated to the drawing.
Explanation. Leaflet 2-1 4.2.

Question Number. 9. The British Standard for Engineering Drawings is.
Option A. BS 308.
Option B. BS 306.
Option C. BS 307.
Correct Answer is. BS 308.
Explanation. Leaflet 2-1 1.3.

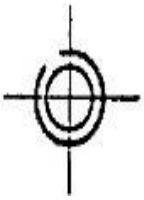
Question Number. 10. P.C.D. is an abbreviation for.
Option A. Pitch Circle Diameter.
Option B. Pitch Cord Diameter.
Option C. Precision Circle Dimension.

Correct Answer is. Pitch Circle Diameter.
Explanation. Leaflet 2-1 table 3.

Question Number. 11. This represents.
Option A. bearing on shaft.
Option B. squared shaft.
Option C. relief valve.
Correct Answer is. squared shaft.
Explanation. Leaflet 2-1 5.9.



Question Number. 12. This represents
Option A. an internal thread.
Option B. a counterbored hole.
Option C. an external thread.
Correct Answer is. an internal thread.
Explanation. NIL.



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Question Number. 13. Drawing numbers are.
Option A. the same as serial numbers.
Option B. changed after each drawing amended after May 28, 1999.
Option C. unique to each drawing.
Correct Answer is. unique to each drawing.
Explanation. Leaflet 2-1 4.1.

Question Number. 14. Hatching lines are usually drawn at:.
Option A. 60°.
Option B. 30°.
Option C. 45°.
Correct Answer is. 45°.
Explanation. Jeppesen A&P General Textbook fig 5-20 and Leaflet 2-1 5.4.1a.

Question Number. 15. The scale of an engineering drawing is shown as 1 : 4. This indicates it is.
Option A. drawn to a quarter.
Option B. drawn to scale.
Option C. drawn four times larger.
Correct Answer is. drawn to a quarter.
Explanation. Leaflet 2-1 5.1.

Question Number. 16. An orthographic projection usually shows.
Option A. one, three-dimensional view of an object.
Option B. a pictorial view of the object.
Option C. three, two-dimensional views of an object.
Correct Answer is. three, two-dimensional views of an object.
Explanation. Leaflet 2-1 5.3.

Question Number. 17. When dimensioning a drawing, the dimension lines should be.
Option A. the minimum number of dimensions necessary to enable the component to be manufactured.
Option B. as many dimensions as possible.
Option C. only size dimensions.
Correct Answer is. the minimum number of dimensions necessary to enable the component to be manufactured.
Explanation. Leaflet 2-1 5.5.

Question Number. 18. PFD' on an engineering drawing would indicate.
Option A. dye penetrant check.
Option B. ultra-sonic test.
Option C. repair and recondition.
Correct Answer is. dye penetrant check.
Explanation. CAAIP S Leaflet 2-1 Table 4.

Question Number. 19. S.W.G. is an abbreviation for.
Option A. Standard Wire Gauge.
Option B. Screw Width Gauge.
Option C. Standard Water Gauge.
Correct Answer is. Standard Wire Gauge.
Explanation. CAAIP S Leaflet 2-1 Table 3.

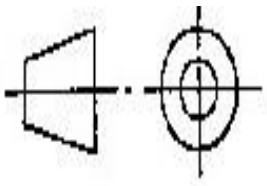
Question Number. 20. If you are unable to identify a structure 'classification' as either primary or secondary, what action should you adopt?.
Option A. Grade it as 'secondary'.
Option B. Upgrade it to ‘primary’.
Option C. Paint it red and stamp it as 'tertiary'.
Correct Answer is. Upgrade it to ‘primary’.
Explanation. NIL.

Question Number. 21. What colour is used to indicate a tertiary structure on a diagram or drawing?.
Option A. Red.
Option B. Green.
Option C. Yellow.
Correct Answer is. Green.
Explanation. NIL.

Question Number. 22. Which parts of the aircraft are classified secondary structures?.
Option A. Highly stressed parts but if damaged will not cause failure of the aircraft.
Option B. Highly stressed parts and if damaged may cause failure of the aircraft and loss of life.
Option C. Lightly stressed parts such as fairings, wheel shields and minor component brackets etc.
Correct Answer is. Highly stressed parts but if damaged will not cause failure of the aircraft.
Explanation. NIL.

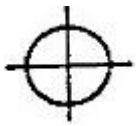
Question Number. 23. This symbol found on an engineering drawing would mean
Option A. angularity.
Option B. cylindricity.
Option C. concentricity.
Correct Answer is. concentricity.
Explanation. Leaflet 2-1 Page 17.

Question Number. 24. This symbol means.
Option A. first angle projection.
Option B. third angle projection.
Option C. second angle projection.
Correct Answer is. first angle projection.
Explanation. Leaflet 2-1 Page 7.



Question Number. 25. The abbreviation B.A. means.
Option A. British Assembly.
Option B. British Association.
Option C. British Arrangement.
Correct Answer is. British Association.

Explanation. Leaflet 3-3.

Question Number. 26. This tolerance symbol means.
Option A. position.
Option B. angularity.
Option C. diameter.

Correct Answer is. position.
Explanation. Leaflet 2-1 table 5.

Question Number. 27. Where are correct layout, dimensioning, numbering and reference procedures for engineering drawing are to be found?.
Option A. BS 31.
Option B. BS 1916.
Option C. BS 308.
Correct Answer is. BS 308.
Explanation. Leaflet 2-1 1.1.

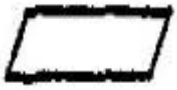
Question Number. 28. 10 : 1 on an engineering drawing indicates.
Option A. the drawing is full size.
Option B. the drawing is one tenth full size.
Option C. the drawing is ten times full size.
Correct Answer is. the drawing is ten times full size.
Explanation. Aircraft Instruments and Integrated Systems, Pallett Page 1 5.1.

Question Number. 29. When reading an engineering drawing, this symbol means.
Option A. profile of a line.

Option B. profile of a surface.
Option C. profile of a position.
Correct Answer is. profile of a surface.
Explanation. Leaflet 2-1 table 5.

Question Number. 30. Lines known as short dashes (thin) are used on drawings to indicate.
Option A. hidden detail.
Option B. visible outlines.
Option C. cutting revolved.
Correct Answer is. hidden detail.
Explanation. Leaflet 2-1 table 1.

Question Number. 31. This symbol means.
Option A. flatness.
Option B. perpendicularity.
Option C. position.
Correct Answer is. flatness.
Explanation. Leaflet 2-1 table 5.



Question Number. 32. Any change to a drawing.
Option A. must be notified to the S.B.A.C.
Option B. must be accompanied by the new issue number and date.
Option C. requires a new drawing number.
Correct Answer is. must be accompanied by the new issue number and date.
Explanation. Leaflet 2-1 4.2.

Question Number. 33. This symbol on a drawing means.
Option A. washed and packed.
Option B. solution treated and precipitated.
Option C. solution treated and requiring precipitation.
Correct Answer is. solution treated and precipitated.
Explanation. Leaflet 2-1 table 4.

Question Number. 34. This symbol means.
Option A. dimensionality.
Option B. diameter.
Option C. concentricity.
Correct Answer is. concentricity.
Explanation. Leaflet 2-1 table 5.

Question Number. 35. Break lines are used.
Option A. to show where components are expected to break.
Option B. in sectional drawing.
Option C. where it would be inconvenient (because of limited space) to draw long lengths of the same section.
Correct Answer is. where it would be inconvenient (because of limited space) to draw long lengths of the same section.
Explanation. Leaflet 2-1 5.45.

Question Number. 36. An oblique projection.
Option A. is the same as an isometric projection.

Option B. has one view looking directly at one face with the lines representing depth drawn at 90°.
Option C. has one view looking directly at one face with the lines representing depth drawn at a constant angle.
Correct Answer is. has one view looking directly at one face with the lines representing depth drawn at a constant angle.
Explanation. NIL.

Question Number. 37. A drawing in which the subassemblies or parts are shown as brought together on the aircraft is called.
Option A. an installation drawing.
Option B. a detail drawing.
Option C. a sectional drawing.
Correct Answer is. an installation drawing.
Explanation. NIL.

Question Number. 38. A thread on a drawing is labeled ½-20 UNF – 1B. The thread is
Option A. either external or internal, depending on the application.
Option B. external.
Option C. internal.
Correct Answer is. internal.
Explanation.

Question Number. 39. NTS on a drawing stands for.
Option A. Not True Scale.
Option B. No Tolerance System.
Option C. Not To Scale.
Correct Answer is. Not To Scale.
Explanation. Leaflet 2-1 table 3.

Question Number. 40. A hydraulic system schematic drawing would indicate the.
Option A. type and quantity of the hydraulic fluid.
Option B. specific location of the individual components within the aircraft.
Option C. direction of fluid flow through the system.
Correct Answer is. direction of fluid flow through the system.
Explanation. NIL.

Question Number. 41. Which statement is true regarding an orthographic projection?.
Option A. There are always at least two views.
Option B. It could have as many as eight views.
Option C. One-view, two-view, and three-view drawings are the most common.
Correct Answer is. One-view, two-view, and three-view drawings are the most common.
Explanation. NIL.

Question Number. 42. A line used to show an edge which is not visible is a.
Option A. break line.
Option B. phantom line.
Option C. hidden line.
Correct Answer is. hidden line.
Explanation. Leaflet 2-1 5.2 table 1.

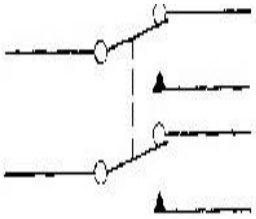
Question Number. 43. One purpose for schematic diagrams is to show the.
Option A. size and shape of components within a system.
Option B. functional location of components within a system.
Option C. physical location of components within a system.
Correct Answer is. functional location of components within a system.
Explanation. NIL.

Question Number. 44. This type of break line represents.
Option A. round bar.
Option B. round tube.
Option C. square tube.
Correct Answer is. round bar.
Explanation. Leaflet 2-1 fig 10.

Question Number. 45. What type of line is normally used in a mechanical drawing or blueprint to represent an edge or object not visible to the viewer?.
Option A. Alternate short and long light dashes.
Option B. Medium-weight dashed line.
Option C. Light solid line.
Correct Answer is. Medium-weight dashed line.
Explanation. Leaflet 2-1 5.2 table 1.

Question Number. 46. A specific measured distance from the datum or some other point identified by the manufacturer, to a point in or on the aircraft is called a.
Option A. zone number.
Option B. station number.
Option C. specification number.
Correct Answer is. station number.
Explanation. AL/7-2 6.

Question Number. 47. This electrical symbol represents a.



Option A. double pole – double throw switch.
Option B. double pole – single throw switch.
Option C. single pole – double throw switch.
Correct Answer is. double pole – double throw switch.
Explanation. A&P Airframe textbook, 12-37 figure 12-57 symbol for DPDT.

Question Number. 48. This electrical symbol represents a.

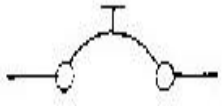
Option A. variable inductor.
Option B. air core inductor.
Option C. iron core inductor.
Correct Answer is. iron core inductor.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 384.

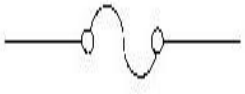
Question Number. 49. This electrical symbol represents a.
Option A. Zener diode.
Option B. PNP transistor.
Option C. NPN transistor.

Correct Answer is. PNP transistor.
Explanation. A&P Airframe Textbook CH12-37 Fig 12-57.

Question Number. 50. In a first angle orthographic projection the plan view is placed.
Option A. above the front elevation.
Option B. below the side elevation.
Option C. below the front elevation.
Correct Answer is. below the front elevation.
Explanation. Leaflet 2-1 Figure 3.

Question Number. 51. When a cutting plane on a drawing cuts a web longitudinally, the web is.
Option A. sectioned the same as the rest of the view.
Option B. not sectioned.
Option C. sectioned with different direction of hatch.
Correct Answer is. not sectioned.
Explanation. BS 308.

Question Number. 52. This electrical symbol represents a.
Option A. push to reset circuit breaker.
Option B. push-pull circuit breaker.
Option C. toggle switch circuit breaker.

Correct Answer is. push-pull circuit breaker.
Explanation. A&P General Textbook CH3-24 Pg 82 Fig 3-57.

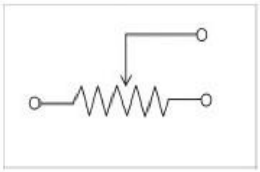
Question Number. 53. This electrical symbol represents a.
Option A. fuse.
Option B. flexible coupling.
Option C. light bulb.

Correct Answer is. fuse.
Explanation. AC43 11-115. A&P General Textbook CH3-24 Pg 82 Fig 3-57.

Question Number. 54. When a cutting plane goes through a bush and bolt assembly, on the sectioned view.
Option A. both the bush and the bolt will be hatched.
Option B. the bush will be hatched but the bolt will not.
Option C. neither the bush nor the bolt will be hatched.
Correct Answer is. the bush will be hatched but the bolt will not.
Explanation. Leaflet 2-1 fig 5 5.4.1 (b).

Question Number. 55. This symbol indicates that.
Option A. chisels must not be used.
Option B. machining is required on a particular surface.
Option C. machining is required on all surfaces.

Correct Answer is. machining is required on a particular surface.
Explanation. Leaflet 2-1 5.7. CAIP S BL/3-3 7.2.

Question Number. 56. This is a diagram of.



Option A. a voltage regulator.
Option B. a potentiometer.
Option C. a voltage divider.
Correct Answer is. a potentiometer.
Explanation. NIL.

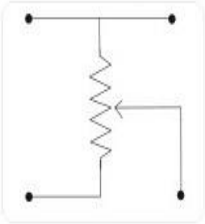
Question Number. 57. Which of the following lines indicate hidden detail on a drawing?.

Option A. A broken line as shown in 2.
Option B. A broken line as shown in 3.
Option C. A continuous line as shown in 1.
Correct Answer is. A broken line as shown in 2.
Explanation. Leaflet 2-1 5.2.

Question Number. 58. The letter A.F.D. in a circle stamped on a material indicates that it has.
Option A. been anodic flaw detected.
Option B. been annealed fired and doped.
Option C. an across flats diameter bolt.
Correct Answer is. been anodic flaw detected.
Explanation. Leaflet 2-1 Table 4.

Question Number. 59. Where would Zone 324 be found in ATA 100?.
Option A. Between rear spar of wing and trailing edge of wing.
Option B. Tip of horizontal stabilizer.
Option C. Fwd of the wing rear spar.
Correct Answer is. Tip of horizontal stabilizer
Explanation. Zone 3xx is empennage.

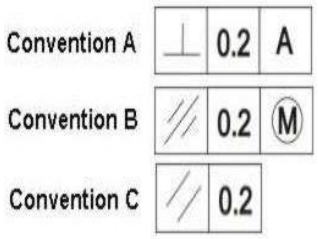
Question Number. 60. This is a diagram of a.



Option A. potentiometer.
Option B. variable resistor.
Option C. rheostat.
Correct Answer is. potentiometer.
Explanation. Don't let the circuit fool you. It still has 3 connections and so it is still a potentiometer.

Question Number. 61. The latest drawing is identified by the.
Option A. issue number.
Option B. amendment number.
Option C. date.
Correct Answer is. issue number.
Explanation. CAAIP\'s leaflet 2-1 pg 4 para 4.2.

Question Number. 62. A geometric tolerance symbol indicating that one edge must be parallel to a datum edge would be shown in which of the following conventions?.



Option A. Convention A.
Option B. Convention C.
Option C. Convention B.
Correct Answer is. Convention C.
Explanation. Leaflet 2-1 5.11.3 table 5.

06. Fits and Clearances.

Question Number. 1. Tolerances are classified in two ways, these are.
Option A. Dimensional and isometric.
Option B. Upper and lower.
Option C. Dimensional and geometric.
Correct Answer is. Dimensional and geometric.
Explanation. CAAIP S leaflet 2-1 p16 para 5.11.

Question Number. 2. The maximum permissible bow in a steel tube is.
Option A. 1 : 400.
Option B. 1 : 200.
Option C. 1 : 600.
Correct Answer is. 1 : 600.
Explanation. CAAIP S Leaflet 6-4.

Question Number. 3. The equipment required to carry out a run-out check on a shaft would be.
Option A. a DTI and 'V' blocks.
Option B. a ball bearing and a micrometer.
Option C. a surface plate and a three leg trammel.
Correct Answer is. a DTI and 'V' blocks.
Explanation. AC43.13-1B Page 4-20.

Question Number. 4. What is the maximum bow allowed in a strut?.
Option A. 1 in 200.
Option B. 1 in 500.
Option C. 1 in 600.
Correct Answer is. 1 in 600.
Explanation. CAAIP S Leaflet 2-10.

Question Number. 5. Which of the following shafts would you use to obtain a clearance fit in a bush 0.750 inch diameter?.
Option A. 0.752 inch.
Option B. 0.748 inch.
Option C. 750 inch.
Correct Answer is. 0.748 inch.
Explanation. NIL.

Question Number. 6. Which of the following is checked when using a 'GO / NO -GO' gauge?.
Option A. Clearance.
Option B. Tolerance.
Option C. Allowance.
Correct Answer is. Tolerance.
Explanation. NIL.

Question Number. 7. Which of the following is a 'Bilateral Tolerance'?.
Option A. 2 inches -0.002.
Option B. 2 inches +0.002.
Option C. 2 inches ±0.002.
Correct Answer is. 2 inches ±0.002.
Explanation. NIL.

Question Number. 8. A tolerance is.
Option A. a permitted difference between new and worn dimensions.
Option B. a permitted variation on a dimension to allow for inaccuracy of equipment.
Option C. a required difference in dimension between mating parts to obtain a certain class of fit.
Correct Answer is. a permitted variation on a dimension to allow for inaccuracy of equipment.

Explanation. NIL.

Question Number. 9. A transition fit is one in which the shaft is.
Option A. larger than the hole.
Option B. smaller than the hole.
Option C. the same size as the hole.
Correct Answer is. the same size as the hole.
Explanation. BS 4500 Datasheet 4500A., External document. www.tech.plym.ac.uk/sme/disnotes/tola.pdf

Question Number. 10. The length of a blended repair of corrosion should be no less than.
Option A. 10 times its depth.
Option B. 20 times its depth.
Option C. 5 times its depth.
Correct Answer is. 20 times its depth.
Explanation. NIL.

Question Number. 11. If there is a positive allowance between the smallest possible hole and the largest possible shaft, the fit is known as.
Option A. a transition fit.
Option B. a clearance fit.
Option C. an interference fit.
Correct Answer is. a clearance fit.
Explanation. NIL.

Question Number. 12. After mechanical removal of corrosion on an aluminum alloy casting, the length of the blended recess should be.
Option A. no less than ten times the depth.
Option B. no less than twenty times the depth.
Option C. no more than twenty times the depth.
Correct Answer is. no less than twenty times the depth.
Explanation. AC43 6.118 6-23.

Question Number. 13. A press fit requires.
Option A. some sort of driving force.
Option B. the shaft to be shrunk by cooling.
Option C. the hole to be expanded by heat.
Correct Answer is. some sort of driving force.
Explanation. A press fit is a small interference only.

Question Number. 14. What is the typical acceptable limit of a dent on a frame member?.
Option A. One and a half times the skin thickness.
Option B. Twice the skin gauge and 0.75 inch diameter.
Option C. One gauge depth and 0.75 inch diameter.
Correct Answer is. One gauge depth and 0.75 inch diameter.
Explanation. NIL.

Question Number. 15. A light drive clearance between 3/4 inch diameter bolt and hole, on a drawing would be shown as.
Option A. 0.005 Inches.
Option B. 0.0015 Inches.
Option C. 0.0025 Inches.
Correct Answer is. 0.0015 Inches.
Explanation. AC43 says 0.0006 for a 3/8 in. bolt, so 0.0015 is the closest (and reasonable for a 3/4 in. bolt).

07. Electrical Cables and Connectors.

Question Number. 1. In a front release connector the pin will be.
Option A. released from rear and extracted from the front.
Option B. released from the front and extracted from the front.
Option C. released from the front and extracted from the rear.
Correct Answer is. released from the front and extracted from the rear.
Explanation. CAAIP S Leaflet 9-3 8.3.2.

Question Number. 2. A wire clamped vertically at one end and horizontally at the other end should have a bend radius of no less than.
Option A. 3 times the diameter of the wire.
Option B. 5 times the diameter of the wire.
Option C. 10 times the diameter of the wire.
Correct Answer is. 3 times the diameter of the wire.
Explanation. CAIP S AL/3-2 6.4.

Question Number. 3. Glycol deicer fluid in contact with a silver cable can cause.
Option A. a fire.
Option B. disintegration of the cable insulation.

Option C. corrosion.
Correct Answer is. a fire.
Explanation. CAAIP S Leaflet 11-5 Para.8.8.

Question Number. 4. With a rear release connector, the pin will be.
Option A. released from the front and extracted from the rear.
Option B. released from the rear and extracted from the front.
Option C. released from the rear and extracted from the rear.
Correct Answer is. released from the rear and extracted from the rear.
Explanation. CAAIP S Leaflet 9-3, 8.3.2 (b) (i).

Question Number. 5. The maximum operating temperature for a nickel plated copper or aluminum connector is.
Option A. 260°C.
Option B. 135°C.
Option C. 200°C.
Correct Answer is. 260°C.
Explanation. CAAIP S leaflet 11-5 para 7.2.1.

Question Number. 6. What gauge of pin would a yellow plastic insert/ extract tool be used on?.
Option A. 16 - 14.
Option B. 12 - 10.
Option C. 22 - 18.
Correct Answer is. 12 - 10.
Explanation. NIL.

Question Number. 7. Can the insulation grip be adjusted on a PIDG crimp tool?.
Option A. No.
Option B. Yes by turning a knob.
Option C. Yes by adjusting the pins.
Correct Answer is. Yes by adjusting the pins.
Explanation. NIL.

Question Number. 8. What gauge of pin would a red plastic insert/extract tool be used on?.
Option A. 12 - 10.
Option B. 22 - 18.
Option C. 16 - 14.
Correct Answer is. 22 - 18.

Explanation. Boeing Standard Wiring Practices, External website. http://www.cheifaircraft.com/Aircraft/InstallationSupply/Terminals.html

Question Number. 9. What cable would you use where temperatures are going to exceed 200°C?.
Option A. Tinned copper or aluminum.
Option B. Silver plated copper or aluminum.
Option C. Nickel plated copper or aluminum.
Correct Answer is. Nickel plated copper or aluminum.
Explanation. CAAIP S Leaflet 11-5, 7.2.1.

Question Number. 10. How long should a fireproof cable last in a fire?.
Option A. 5 minutes.
Option B. 50 minutes.
Option C. 15 minutes.
Correct Answer is. 15 minutes.
Explanation. NIL.

Question Number. 11. What gauge of pin would a blue plastic insert / extract tool be used on?.
Option A. 12 - 10.
Option B. 16 - 14.
Option C. 22 - 18.
Correct Answer is. 16 - 14.
Explanation. NIL.

Question Number. 12. less than. The insulation resistance for wiring in undercarriage wheel-wells should normally be not
Option A. 10 megohms.
Option B. 5 megohms.
Option C. 2 megohms.
Correct Answer is. 2 megohms.
Explanation. CAIP S EEL/1-6 Para 4-5-4 (a).

Question Number. 13. What causes knuckling on older type electrical cables?.
Option A. Over-temperature soldering.
Option B. Applying cable ties too tightly.
Option C. Excessive pull through forces.
Correct Answer is. Excessive pull through forces.
Explanation. Leaflet 1l-5 8.6.

Question Number. 14. To find a high resistance or open circuit, carry out.
Option A. a milli-volt drop test.
Option B. a continuity check.
Option C. a bonding check.
Correct Answer is. a continuity check.
Explanation. CAAIP S Leaflet 9-1, 4.2.1.

Question Number. 15. The maximum bonding resistance on an aircraft primary structure should be.
Option A. 0.01 ohms.
Option B. 0.001 ohms.
Option C. 0.05 ohms.
Correct Answer is. 0.05 ohms.
Explanation. CAAIP S Leaflet 9-1, 3.8.

Question Number. 16. Before effecting a crimp, the bare ends of a cable should be.
Option A. tightly twisted.
Option B. twisted lightly in the direction of the lay.
Option C. straightened out.
Correct Answer is. twisted lightly in the direction of the lay.
Explanation. CAAIP S Leaflet 9-3, 7.5.3.

Question Number. 17. The number of the dots impressed on the insulation of the pre-insulated connectors during crimping indicates that.
Option A. the correct connector has been used.
Option B. the correct tool was used to effect the connection.
Option C. the crimp is properly formed.
Correct Answer is. the correct tool was used to effect the connection.
Explanation. NIL.

Question Number. 18. The pressure of the insulation crimp jaws on the PIDG crimping tool can be changed by.
Option A. varying the torque applied to the handles.
Option B. using different coloured crimping pliers and terminations.
Option C. changing the position of the pins.
Correct Answer is. changing the position of the pins.
Explanation. CAAIP S Leaflet 9-3 fig 2.

Question Number. 19. When referring to fuses, HRC means.
Option A. high rupture capacity.
Option B. hot running capacity.
Option C. high running current.
Correct Answer is. high rupture capacity.
Explanation. High Rupturing Capacity.

Question Number. 20. When wiring an electrical component to a plug, the live wire is coloured.
Option A. blue.
Option B. green and yellow.
Option C. brown.
Correct Answer is. brown.
Explanation. NIL.

Question Number. 21. A hole is placed in the lowest point of electrical cable conduit.
Option A. to allow for pull-through of the cables.
Option B. to secure the conduit to a piece of aircraft structure.
Option C. to allow for drainage of moisture.
Correct Answer is. to allow for drainage of moisture.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 65.

Question Number. 22. The minimum distance between electrical cable splices is.
Option A. 3 feet.
Option B. 12 inches.
Option C. 500 mm.
Correct Answer is. 500 mm.
Explanation. NIL.

Question Number. 23. A fire resistant cable is proof tested by exposure to a standard fire for.
Option A. 30 minutes.
Option B. 5 minutes.
Option C. 15 minutes.
Correct Answer is. 5 minutes.
Explanation. CAAIP S Leaflet 11-5 4.5 and EASA CS-1 Pg.6.

Question Number. 24. When fitting coaxial cable connectors it is important to.
Option A. fit the correct lock nuts.
Option B. make sure the outer cup is fitted the correct way round.
Option C. not damage any seals fitted.
Correct Answer is. not damage any seals fitted.
Explanation. NIL.

Question Number. 25. When inserting pins into a front release connector the inserting tool should be used with the gap facing which direction?.
Option A. The centre of the connector.
Option B. Either direction.
Option C. The outside of the connector.
Correct Answer is. The outside of the connector.
Explanation. Leaflet 9-3 Para.8.3.2.

Question Number. 26. When using a hydraulic crimping tool, after completing the crimping operation, the crimp is formed when when.
Option A. the bypass valve opens and the ram returns to neutral.
Option B. the foot pedal force is at maximum.
Option C. the bypass valve closes and the ram returns to neutral.
Correct Answer is. the bypass valve opens and the ram returns to neutral.
Explanation. NIL.

Question Number. 27. The type of binding tape used for cables in temperatures above 260°C is which of the following?.
Option A. Nomex.
Option B. Teflon.
Option C. Nylon.
Correct Answer is. Teflon.
Explanation. This is probably referring to the Teflon tape referred to in Aircraft Electricity and Electronics by Eismin 5th Edition Page 69. Also AC43 Para.11.96 z and Appendix 1 (Teflon is Dupont trade-name for PTFE).

Question Number. 28. What is the minimum bend radius of a loom adequately supported at a terminal block?.
Option A. 10 * diameter.
Option B. 8 * diameter.
Option C. 3 * diameter.
Correct Answer is. 3 * diameter.
Explanation. Leaflet 9-3 7.3.

Question Number. 29. How are front release pins removed?.
Option A. The tool is inserted from the front and the pin is removed from the front.
Option B. The tool is inserted from the rear and the pin Is removed from the front.
Option C. The tool is inserted from the front and the pin is removed from the rear.
Correct Answer is. The tool is inserted from the front and the pin is removed from the rear.
Explanation. Leaflet 9-3 8.3.2 (b)(ii).

Question Number. 30. If a co-axial cable clamp is over tightened so as to compress the dielectric, how will the capacitance change?.
Option A. Stay the same.
Option B. Increase.
Option C. Decrease.
Correct Answer is. Increase.
Explanation. AC43 11-117. Decreasing dielectric thickness (of a capacitor) increases its capacitance.

Question Number. 31. What is the minimum bend radius of a single co-axial cable?.
Option A. 10 * diameter.
Option B. 8 * diameter.
Option C. 6 * diameter.
Correct Answer is. 6 * diameter.
Explanation. AC43.13-1B Page 11-45 Para.11-96 bb. No British reference found.

Question Number. 32. What is wet arc tracking?.
Option A. A fault caused by hot stamp printing.
Option B. A fault caused by insulation damage.
Option C. A fault caused by 'knuckling through'.
Correct Answer is. A fault caused by hot stamp printing.
Explanation. AC43.13-1B, 11-210 and CAAIP S Leaflet 11-5 Para.8.2.

Question Number. 33. When using a heat shrink gun, what should the temperature of the gun be set to?.
Option A. 100° below the heat shrink temperature.

Option B. 15° below the heat shrink temperature.
Option C. 100° above the heat shrink temperature.
Correct Answer is. 100° above the heat shrink temperature.
Explanation. A trick question. The 'Heat shrink temperature' is the normal 'room' temperature of about 20-25°C. Most heat shrink materials shrink at around 125°C.

Question Number. 34. In an electrical cable 1EF6B22NMS, what does the letter E represent?.
Option A. Circuit function.
Option B. Cable size.
Option C. Segment letter.
Correct Answer is. Circuit function.
Explanation. Leaflet 9-3 Para.9.1.1.

Question Number. 35. On a coaxial cable, cable impedance is.
Option A. proportional to length.
Option B. not effected by length.
Option C. inversely proportional to length.
Correct Answer is. not effected by length.
Explanation. The length has nothing to do with a coaxial cable impedance. External website.
http://www.epanorama.net/documents/wiring/cable_impedance.html

Question Number. 36. A secondary earth is.
Option A. not less than 0.5mm cross sectional area.
Option B. 18 AWG.
Option C. 22 AWG.
Correct Answer is. 18 AWG.
Explanation. Leaflet 9-1 para.3.3 & EEL/1-6 3.3.1 (a) ii.

Question Number. 37. E' on a wire, under ATA 100 is a.
Option A. phase indication.
Option B. system ID code.
Option C. cable size.
Correct Answer is. system ID code.
Explanation. Leaflet 9-3 para.9.1.1.

Question Number. 38. To prevent wet arc tracking.
Option A. cable grips should be tight.

Option B. ensure hot stamp printing is controlled.
Option C. cables should not be stretched.
Correct Answer is. ensure hot stamp printing is controlled.
Explanation. Leaflet 11-5 8.2 and 6.7.

Question Number. 39. When splicing a cable with a soldered joint, the operation is finished when.
Option A. the solder has melted.
Option B. the solder sleeve disappears.
Option C. the solder and insulation have formed.
Correct Answer is. the solder and insulation have formed.
Explanation. The solder sleeve is a plastic cylinder with two rings of plastic at each end and a solder ring in the middle. When heated the cylinder first melts on to the wires, then the plastic rings melt, sealing the ends of the cylinder.

Question Number. 40. When manufacturing an electrical connector the unused holes are.
Option A. filled with connectors.
Option B. filled with connectors and blanked.
Option C. covered with blanks.
Correct Answer is. filled with connectors and blanked.
Explanation. Leaflet 9-3 para 8.3.2 f)iii) and AC 43.13B 11-234.

Question Number. 41. Co-axial cable is preferred to airframe cable in which application?.
Option A. Where the diameter of cable is not important.
Option B. High frequency interference.
Option C. Low frequency interference.
Correct Answer is. Where the diameter of cable is not important.
Explanation. Cable is susceptible to all frequencies of interference. Co-axial cable is reasonably well protected from all frequencies of interference but is much thicker overall than airframe cable.

Question Number. 42. Forward release electrical connectors are removed by the wire being.
Option A. pushed forwards.
Option B. twisted to the right.
Option C. pulled backwards.
Correct Answer is. pulled backwards.
Explanation. Leaflet 9-3 8.32 II.

Question Number. 43. When crimping wires, the wires should be.
Option A. straight.
Option B. lightly twisted.
Option C. twisted.
Correct Answer is. lightly twisted.
Explanation. Leaflet 9-3 7.5.5 ©.

Question Number. 44. Why are copper wires used in electrical systems?.
Option A. They have high permeability.
Option B. They do not give off a magnetic field.
Option C. They have a low resistance to current.
Correct Answer is. They have a low resistance to current.
Explanation. Copper has a low resistance to current.

Question Number. 45. When crimping wires, the wire should.
Option A. be flush with the crimp.
Option B. extend 0.8 mm beyond the crimp.
Option C. be beneath the crimp.
Correct Answer is. extend 0.8 mm beyond the crimp.
Explanation. NIL.

Question Number. 46. 1EF6B22 NMSV. What does the B mean?.
Option A. Segment letter.
Option B. Cable number.
Option C. Circuit function.
Correct Answer is. Segment letter.
Explanation. Leaflet 9-3 9.1.1.

Question Number. 47. A white/blue insertion-extraction tool would be used on a cable of what size?.
Option A. 10.
Option B. 22.
Option C. 16.
Correct Answer is. 16.
Explanation. NIL.

Question Number. 48. The value of the insulation resistance of an electric motor compared to its supply leads is.
Option A. greater.

Option B. same.
Option C. smaller.
Correct Answer is. smaller.
Explanation. Leaflet 9-1 4.5.4 (c) 'Rated voltage / 150' whereas supply leads must take the supply voltage at least.

Question Number. 49. According to ATA 100, a symbol code 'X' on a wiring number denotes.
Option A. a warning circuit.
Option B. a ground circuit.
Option C. AC power.
Correct Answer is. AC power.
Explanation. Aircraft Electricity and Electronics. Eismin 5th Edition page 79.

Question Number. 50. When securing wire after it leaves an LRU, cable bundle bends should be not less than?.
Option A. minimum radius of five times the outside diameter of the cable, or cable bundle.
Option B. minimum radius of three times the outside diameter of the cable, or cable bundle.
Option C. minimum radius of eight times the outside diameter of the cable, or cable bundle.
Correct Answer is. minimum radius of eight times the outside diameter of the cable, or cable bundle.
Explanation. CAAIP 9-3, 7.4 states 8 times the diameter (not 3 times, because it is not at a terminal block).

Question Number. 51. When terminating an aluminum cable, what preparations would be carried out before crimping?.
Option A. Degrease stripped cable.
Option B. Just terminate.
Option C. Apply a mixture of 50% petroleum jelly and zinc oxide.
Correct Answer is. Apply a mixture of 50% petroleum jelly and zinc oxide.
Explanation. CAAIP S Leaflet 9-1 3.5.4.

Question Number. 52. An in-line splice should be positioned on the.
Option A. terminal of the loom.
Option B. outside of the loom.
Option C. outer surface of the loom for easy inspection.
Correct Answer is. outer surface of the loom for easy inspection.

Explanation. NIL.

Question Number. 53. A conductor after being crimped. The maximum amount of conductor which protrudes from the terminal end should be **Option A.** 1/32 inch.
Option B. 1/8 inch.
Option C. 1/16 inch.
Correct Answer is. 1/32 inch.
Explanation. Leaflet 9-1 Fig 1 (0.8 mm = 1/32 in.).

Question Number. 54. Two or more operations should be performed to strip wire with hand operated wire stripper if the total stripping length exceeds.
Option A. 0.50 in.
Option B. 0.75 inch.
Option C. 0.25 in.
Correct Answer is. 0.75 inch.
Explanation. Leaflet 9-3 7.5.5 (d).

Question Number. 55. A cable loom should be protected by conduit when fed through the.
Option A. main equipment centre.
Option B. wheelwell door.
Option C. cargo compartment ceiling.
Correct Answer is. wheelwell door.
Explanation. NIL.

Question Number. 56. The size of proper conduit for electrical wires must be.
Option A. 75% larger than the maximum diameter of wires.
Option B. 25% larger than the maximum diameter of wires.
Option C. 100% larger than the average diameter of wires.
Correct Answer is. 25% larger than the maximum diameter of wires.
Explanation. AC43 11-249.

Question Number. 57. Blue metal extract tool would be used with contacts sized.
Option A. 16.
Option B. 12.
Option C. 22.
Correct Answer is. 16.
Explanation. NIL.

Question Number. 58. A Silver coated conductor in an unpresurised area is subject to moisture and has a
damaged coating would be likely to cause.
Option A. Wet Arc Tracking.
Option B. Knuckling Through.
Option C. Red Plague.
Correct Answer is. Red Plague.
Explanation. NIL.

08. Riveting.

Question Number. 1. When riveting, the distance from the edge to the rivet (land) should not be less than.
Option A. 1D.
Option B. 2D.
Option C. 4D.
Correct Answer is. 2D.
Explanation. A&P Technician Airframe Textbook 2-53.

Question Number. 2. The strength of a riveted joint compared to that of the original metal is.
Option A. 75%.
Option B. 100%.
Option C. 125%.
Correct Answer is. 75%.
Explanation. NIL.

Question Number. 3. A repair has a double riveted joint. The shear strength would be.
Option A. 125%.
Option B. 75%.
Option C. 100%.
Correct Answer is. 75%.
Explanation. NIL.

Question Number. 4. The standard minimum rivet row spacing is.
Option A. 2 1/4 D.
Option B. 3 D.
Option C. 4 D.

Correct Answer is. 4 D.
Explanation. NIL.

Question Number. 5.What is the normal spacing between rivets?.
Option A. 2 D.
Option B. 4 D.
Option C. 3 D.
Correct Answer is. 4 D.
Explanation. NIL.

Question Number. 6. In British rivets (solid) what is the length grading unit?.
Option A. 1/16.
Option B. 1/10.
Option C. 1/32.
Correct Answer is. 1/16.
Explanation. CAIP S BL/6-1, 4.2.

Question Number. 7. If the thickness of a single sheet of material, about to be joined by riveting was 1/16 of an inch thick what would be the approximate diameter of the rivets to be used?.
Option A. 1/16 inch.
Option B. 3/16 inch.
Option C. 1/8 inch.
Correct Answer is. 3/16 inch.
Explanation. CAIP S BL/6-29 Para 3.

Question Number. 8. Regarding riveting, which of the following is correct?.
Option A. Both of the above are correct.
Option B. The length of a countersunk rivet (flush head) is measured from the end of the rivet to the top of the countersunk head.
Option C. The length of a round head or flat head is measured from the end of the rivet to underside of rivet head.
Correct Answer is. Both of the above are correct.
Explanation. Jeppesen A&P Airframe Textbook 2-36 and AC43 page 4.16.

Question Number. 9. When riveting, a certain clearance must exist between the rivet and the hole in which it is fitted, to allow for shank expansion. If the clearance is too large, what could be the result?.
Option A. Indentations by rivet head on the material.
Option B. Separation of the sheets may occur.

Option C. Sheet may tend to buckle.
Correct Answer is. Separation of the sheets may occur.
Explanation. CAIP S BL/6-29 Para 9.3.1 -Fig 4, Too small a hole causes buckling, too large causes separation.

Question Number. 10. To replace one 1/8 inch rivet.
Option A. three 1/16 inch rivets would be required.
Option B. two 1/16 inch rivets would be required.
Option C. four 1/16 inch rivets would be required.
Correct Answer is. four 1/16 inch rivets would be required.
Explanation. CAIP BL/6-27 in the NOTE below para 5.3.

Question Number. 11. If treated rivets have not been used within the prescribed time they can be re-treated. What is the maximum number of times that they can be heat-treated?.
Option A. If no more in Stores, as many times as required.
Option B. Twice only.
Option C. Three times.
Correct Answer is. Three times.
Explanation. CAIP S BL/6-27 Para 6-3.

Question Number. 12. Rivets kept at a temperature of between –15°C and –20°C are usable for.
Option A. 150 days.
Option B. 150 minutes.
Option C. 150 hours.
Correct Answer is. 150 hours.
Explanation. CAIP S BL/6-27 Para 6-2.

Question Number. 13. Avdel rivets are closed by.
Option A. a broaching process.
Option B. a tapered mandrel.
Option C. a squeezing process.
Correct Answer is. a broaching process.
Explanation. CAIP S BL/6-28 Para 3.2 Fig 2.

Question Number. 14. What is the purpose of the Avdel pin tester?.
Option A. To test the tightness of the pin in the rivet.
Option B. To test the tightness of the rivet in the hole.
Option C. To test the shear strength of the pin.

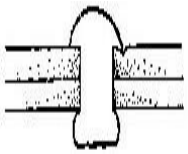
Correct Answer is. To test the tightness of the pin in the rivet.
Explanation. Inspection after Installation of AVDEL rivets. The security of the mandrel must be tested.Use the AVDEL PIN TESTER (Part Number 79/95-0700) set to 35 Lbs. No movement of the mandrel is permitted. Ref. SRM A300-600.Chapter 51-40-21.

Question Number. 15. The stems of an Avdel rivet are.
Option A. removed with the riveting tool.
Option B. nipped off and milled flush with the head.
Option C. removed with a taper punch.
Correct Answer is. nipped off and milled flush with the head.
Explanation. NIL.

Question Number. 16. What is the pressure range for the Avdel Riveter Type F?.
Option A. 40 to 60 lbs per sq. in.
Option B. 20 to 60 lbs per sq. in.
Option C. 60 to 80 lbs per sq. in.
Correct Answer is. 60 to 80 lbs per sq. in.
Explanation. NIL.

Question Number. 17. When countersinking rivet holes in a material.
Option A. a special countersinking bit with a pad to prevent drilling too deep should be used.
Option B. a plain countersinking bit should be used.
Option C. the rivet head should stand 1/32 of an inch above the surface.
Correct Answer is. a special countersinking bit with a pad to prevent drilling too deep should be used.
Explanation. NIL.

Question Number. 18. The riveting defect in the figure shown is.
Option A. too much hammering.
Option B. the dolly was not square.
Option C. the snap was not square.
Correct Answer is. the snap was not square.
Explanation. BL/6-29 Para 9-3-1 Fig 4.



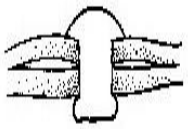
Question Number. 19. Rivet allowance is.
Option A. the distance the rivet is positioned from the edge of the repair plate.
Option B. the amount of material required to form the rivet on installation.

Option C. the distance between rivets in the same row.
Correct Answer is. the amount of material required to form the rivet on installation.
Explanation. BL/6-29 8.1.

Question Number. 20. What is the approximate distance of the sphere of influence of a rivet?.
Option A. 4 D.
Option B. 2 D.
Option C. 5 D.
Correct Answer is. 5 D.
Explanation. NIL.

Question Number. 21. Rivet clearance is.
Option A. the distance between rivets in the same row.
Option B. the amount that the rivet hole diameter exceeds the rivet diameter.
Option C. the distance between rows of rivets.
Correct Answer is. the amount that the rivet hole diameter exceeds the rivet diameter.
Explanation. BL/6-29 4.2.

Question Number. 22. The minimum rivet pitch is.
Option A. 2 1/2 * the rivet diameter.
Option B. 3 * the rivet diameter.
Option C. 2 * the rivet diameter.
Correct Answer is. 3 * the rivet diameter.
Explanation. A&P Airframe Textbook CH12-37 Fig 12-57. (BL/6-29 3.1 - staggered double row only).

Question Number. 23. The riveting defect in the figure shown is.
Option A. the snap was not square.
Option B. the hole was too small.
Option C. an incorrect snap has been used.

Correct Answer is. the hole was too small.
Explanation. CAIP S BL/6-29 Para 9.3.1 Fig 4. AC43 21.

Question Number. 24. The ‘grip’ of a rivet is.
Option A. the length of rivet left to form the head.
Option B. the thickness of plates which can be fastened.
Option C. the area of the plates held firmly together.

Correct Answer is. the thickness of plates which can be fastened.
Explanation. NIL.

Question Number. 25. The strength of a riveted joint is determined by.
Option A. shear strength and pitch of rivet.
Option B. pitch and tensile strength of rivet.
Option C. shear strength of rivet and material it is made of.
Correct Answer is. shear strength and pitch of rivet.
Explanation. BL/6-27 5.2 The shear strength of the rivet is determined by the material it is made of. All rivets are under shear.

Question Number. 26. If the bearing strength of a metal is greater than the shear strength of the rivet, what will occur?.
Option A. Rivet will joggle.
Option B. Rivet will show incorrectly installed.
Option C. Rivet will pull through the metal.
Correct Answer is. Rivet will joggle.
Explanation. NIL.

09. Pipes and Hoses.

Question Number. 1. When carrying out a pressure test on a pipe it should be.
Option A. twice the working pressure for two minutes.
Option B. 1.5 times the working pressure.
Option C. three times the working pressure for five minutes.
Correct Answer is. 1.5 times the working pressure.
Explanation. Leaflet 5-5 8.5.

Question Number. 2. When checking a hose after installation it should be checked for freedom of movement.
Option A. by flexing through the normal operating range plus 15°.
Option B. by flexing through the normal operating range only.
Option C. by flexing +/-15° either side of the neutral position.
Correct Answer is. by flexing through the normal operating range plus 15°.
Explanation. Leaflet 5-5 8.4.2.

Question Number. 3. If the outer cover of a flexible hose is found to be cracked.
Option A. it is unserviceable since it may have a restricted flow.
Option B. it may still be serviceable.
Option C. it is unserviceable since it may leak.

Correct Answer is. it may still be serviceable.
Explanation. Leaflet 5-5 7.2.2.

Question Number. 4. A rigid hydraulic pipe requires shaping. It should be carried out.
Option A. after annealing.
Option B. after age hardening.
Option C. as supplied.
Correct Answer is. as supplied.
Explanation. CAIP S BL/6-15 3.3 and 4.4.4 (iii).

Question Number. 5. Fretting corrosion on a braided pipe would mean it was.
Option A. unserviceable and should be replaced.
Option B. not necessarily unserviceable.
Option C. only unserviceable if the corrosion penetrates the braids.
Correct Answer is. unserviceable and should be replaced.
Explanation. NIL.

Question Number. 6. Pipe flaring is carried out.
Option A. as supplied.
Option B. in the annealed state.
Option C. after normalizing.
Correct Answer is. as supplied.
Explanation. BL/6-15.

Question Number. 7. To allow for shrinkage, vibration and whip all straight hoses must be.
Option A. 5% longer than the distance between the fittings.
Option B. 2% longer than the distance between the fittings.
Option C. 3% longer than the distance between the fittings.
Correct Answer is. 3% longer than the distance between the fittings.
Explanation. CAAIP S Leaflet 5-5 6.5.

Question Number. 8. A flexible hose that cannot be internally inspected by eye or introscope can be ball tested by suspending from one end at a time to check.
Option A. a ball of 95% of bore of hose can be pushed through with a metal rod.
Option B. a ball of 98% of bore of end fittings passes freely under own weight.
Option C. ball of 90% of bore of end fittings passes freely under own weight.

Correct Answer is. ball of 90% of bore of end fittings passes freely under own weight.
Explanation. CAAIP S Leaflet 5-5 9.5.3 a.

Question Number. 9. Hoses are normally pressure tested to.
Option A. maximum working pressure.
Option B. 2 times maximum working pressure.
Option C. 1½ times maximum working pressure.
Correct Answer is. 1½ times maximum working pressure.
Explanation. CAAIP S Leaflet 5-5 8.5.

Question Number. 10. A fluid line marker with a skull & crossbones is.
Option A. fluid line carries toilet waste.
Option B. warning symbol.
Option C. radioactive symbol.
Correct Answer is. warning symbol.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 10-13.

Question Number. 11. The international marking for a water injection pipeline is a series of.
Option A. chevrons.
Option B. squares.
Option C. dots.
Correct Answer is. chevrons.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 10-13.

Question Number. 12. The international marking for a fire protection pipe line is a series of.
Option A. circles.
Option B. squares.
Option C. diamonds.
Correct Answer is. diamonds.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 10-13.

Question Number. 13. To prevent corrosion where aluminum alloy pipelines are supported by rubber cleats, the pipe should be treated over the area of contact with.
Option A. french chalk.
Option B. varnish.
Option C. petroleum jelly.

Correct Answer is. varnish.
Explanation. NIL.

Question Number. 14. The international marking for an instrument air pipe line is a.
Option A. series of dots.
Option B. zig zag line.
Option C. wavy band.
Correct Answer is. zig zag line.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 10-13, A&P Technician General page 10-13 figure 10-28.

Question Number. 15. The maximum distance between end fittings to which a straight hose assembly is to be connected is 50 inches. The minimum hose length should be.
Option A. 51 inches.
Option B. 51½ inches.
Option C. 3 inches.
Correct Answer is. 51½ inches.
Explanation. CAAIP S Leaflet 5-5 6.5.

Question Number. 16. The length of a hose assembly with elbowed end fittings is taken from.
Option A. the maximum length of the straight portion of hose.
Option B. the centre of the bore at the nipple extremity.
Option C. the extreme overall length.
Correct Answer is. the centre of the bore at the nipple extremity.
Explanation. CAIP S AL/ 3-13 Para 2-3.

Question Number. 17. The international marking for a breathing oxygen pipe line is a series of.
Option A. dots.
Option B. diamonds.
Option C. rectangles.
Correct Answer is. rectangles.
Explanation. Jeppesen A&P General Technician Textbook Page 10-13.

Question Number. 18. The resistance between a flexible hose and a component should not exceed.
Option A. 1 ohm.

Option B. 0.5 ohm.
Option C. 0.05 ohm.
Correct Answer is. 0.05 ohm.
Explanation. Leaflet 5-5 9.5.5.

Question Number. 19. Bore tests of flexible hoses are carried out using a suitable ball or bobbin of.
Option A. 90% of the diameter of the end fittings.
Option B. 85% of the diameter of the end fittings.
Option C. 25% of the diameter of the end fittings.
Correct Answer is. 90% of the diameter of the end fittings.
Explanation. Leaflet 5-5 9.5.3 (a) (ii).

Question Number. 20. The 'Lay Line' on a flexible hose is.
Option A. an arrow painted on the hose to show the direction of fluid flow.
Option B. a white line painted the full length of the hose to indicate any twist in the hose.
Option C. a white line painted the full length of the hose to indicate any stretch in the hose.
Correct Answer is. a white line painted the full length of the hose to indicate any twist in the hose.
Explanation. AL/3-13 4.2 figure 4.

Question Number. 21. Aluminum alloy pipe used for hydraulics systems is flared.
Option A. normalized.
Option B. as supplied.
Option C. annealed.
Correct Answer is. as supplied.
Explanation. BL/6-15 6.2.

Question Number. 22. Identify the parts required to make up a flared-tube fitting?.
Option A. Sleeve and nut.
Option B. Ferrule and nut.
Option C. Body, sleeve and nut.
Correct Answer is. Sleeve and nut.
Explanation. BL/6-15 6.2.2. A&P Mechanic General Handbook Pg.103.

Question Number. 23. The flare angle on an AGS pipe is.

Option A. 90 degrees.
Option B. 45 degrees.
Option C. 32 degrees.
Correct Answer is. 32 degrees.
Explanation. BL/6-15 6.1.

Question Number. 24. Repair to aluminum pipe can be done using burnishing.
Option A. if damage is surface only.
Option B. if damage is no more than 5%.
Option C. if damage is no more than 10%.
Correct Answer is. if damage is no more than 10%.
Explanation. AC43 Pg.9-18 Para.9.30 c.

Question Number. 25. Rigid pipes are designed with bends to.
Option A. allow for expansion and contraction due to heat and absorb vibration.
Option B. absorb vibration.
Option C. fit to the aircraft structure.
Correct Answer is. allow for expansion and contraction due to heat and absorb vibration.
Explanation. Answer b is just too obvious.

Question Number. 26. You find a pipe with a flare end fitting of 74°. What specification has it been manufactured to?.
Option A. A.G.S.
Option B. A.N.
Option C. S.A.E.
Correct Answer is. A.N.
Explanation. BL/6-15 6.1.

Question Number. 27. Bonding connections between flexible and rigid pipes are achieved by.
Option A. ti-wrapping the bonding lead to the pipes.
Option B. using a corrugated strip.
Option C. tucking the bonding leads between the flexible and rigid pipes.
Correct Answer is. using a corrugated strip.
Explanation. CAAIP S 9-1, 3.6.1.

10. Springs.

Question Number. 1. Springs are manufactured from.
Option A. high carbon alloy steel with high strength requirements.
Option B. low carbon alloy steel with high strength requirements.
Option C. high carbon alloy steel with low strength requirements.
Correct Answer is. high carbon alloy steel with high strength requirements.
Explanation. Springs are made from high carbon steel with high strength requirements.

Question Number. 2. A wear check on a cylinder head valve spring should include.
Option A. length under load.
Option B. diameter and length.
Option C. length off-load.
Correct Answer is. length under load.
Explanation. EL/3-2 para 4.4 and Aircraft Reciprocating Engines, Jeppesen. Page 88.

Question Number. 3. Material used for springs is.
Option A. High carbon or alloy steel with low working stresses.
Option B. Low carbon steel or alloy steel with high working stresses.
Option C. Low carbon steel or alloy steel with low working stresses.
Correct Answer is. High carbon or alloy steel with low working stresses.
Explanation. Springs are made from hardened (high carbon) or alloy steel, and work under low stress to keep them within the elastic range.

11. Bearings.

Question Number. 1. Needle roller bearings.
Option A. are susceptible to brinelling.
Option B. can accept a small amount of misalignment.
Option C. are designed to carry axial loads.
Correct Answer is. are susceptible to brinelling.
Explanation. CAIP BL/6-14 para 2.3.1 ii.

Question Number. 2. When rotating a ball bearing by hand, a regular click indicates.
Option A. damage to the balls.
Option B. intergranular corrosion in the outer ring.

Option C. a cracked ring.
Correct Answer is. a cracked ring.
Explanation. NIL.

Question Number. 3. Brinelling of a wheel bearing could be caused by.
Option A. rotation of the outer race in the wheel housing.
Option B. heavy landing.
Option C. overheating of the brakes.
Correct Answer is. heavy landing.
Explanation. NIL.

Question Number. 4. Brinelling of a bearing is.
Option A. bluing of the bearing due to overheating.
Option B. shallow smooth depressions caused by the rollers being forced against the cup, due to overtorquing.
Option C. indentations in the race surface caused by continual static vibration.
Correct Answer is. shallow smooth depressions caused by the rollers being forced against the cup, due to overtorquing.
Explanation. NIL.

Question Number. 5. A tapered roller bearing is designed to take.
Option A. radial loads only.
Option B. both radial and axial loads.
Option C. axial loads only.
Correct Answer is. both radial and axial loads.
Explanation. NIL.

Question Number. 6. Small indentations in the race of a ball bearing indicate.
Option A. overtorquing.
Option B. corrosion.
Option C. brinelling.
Correct Answer is. brinelling.
Explanation. Jeppesen A&P Airframe Textbook 1-46.

Question Number. 7. When fitting a ball bearing to a shaft it should be carefully positioned using.
Option A. a steel drift with light blows.
Option B. a copper or aluminum tube drift.
Option C. a soft steel or brass tube drift.
Correct Answer is. a soft steel or brass tube drift.

Explanation. CAIP BL/6-14 5.4.

Question Number. 8. Graphite prevents seizure and conducts heat. It is normally used in.
Option A. lithium based greases.
Option B. sodium based greases.
Option C. copper based greases.
Correct Answer is. sodium based greases.
Explanation. Graphite is added to sodium based greases.

Question Number. 9. False Brinelling of a bearing is.
Option A. movement of the outer ring relative to its housing.
Option B. indentations on the race-way due to load transferred through the bearing when static.
Option C. a scoring of the race-way surfaces due to ball or roller skidding.
Correct Answer is. indentations on the race-way due to load transferred through the bearing when static.
Explanation. NIL.

Question Number. 10. On completion of assembly the bearing housing.
Option A. should be examined for end float.
Option B. packed fully with grease.
Option C. lightly packed with grease.
Correct Answer is. lightly packed with grease.
Explanation. NIL.

Question Number. 11. When checking a ball bearing for corrosion and foreign matter.
Option A. rotate at operational speed and check for roughness.
Option B. make a strip down inspection.
Option C. oscillate and rotate slowly to listen for roughness.
Correct Answer is. oscillate and rotate slowly to listen for roughness.
Explanation. NIL.

Question Number. 12. What type of load is a journal load?.
Option A. Radial.
Option B. Axial.
Option C. Centrifugal.
Correct Answer is. Radial.
Explanation. NIL.

Question Number. 13. Bearings to be cleaned for further examination should be wiped free of all grease on outer surfaces with the aid of dry compressed air for cages and rolling parts. The bearings should then be soaked in.
Option A. M.E.K.
Option B. lead free gasoline.
Option C. white spirit.
Correct Answer is. white spirit.
Explanation. CAIPa BL/6-14 8.1.

Question Number. 14. After cleaning a bearing should be dried with.
Option A. left in free air to dry naturally.
Option B. clean, warm, dry compressed air.
Option C. lint free rags.
Correct Answer is. clean, warm, dry compressed air.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 9-8.

Question Number. 15. Thrust bearings transmit.
Option A. thrust loads, thus limiting axial movement.
Option B. radial loads, thus limiting axial movement.
Option C. thrust loads, thus limiting radial movement.
Correct Answer is. thrust loads, thus limiting axial movement.
Explanation. BL/6-14 2.2.3 and 3.1.

Question Number. 16. Chipping of a ball bearing indicates.
Option A. brinelling.
Option B. chattering.
Option C. spalling.
Correct Answer is. spalling.
Explanation. NIL.

Question Number. 17. A Hardy Spicer coupling has what type of bearings?.
Option A. Ball Bearings.
Option B. Needle bearings.
Option C. Plain bearings.
Correct Answer is. Needle bearings.
Explanation. BL/6-14 2.3.1 (ii).

Question Number. 18. Graphite greases are used for.

Option A. medium temperature applications.
Option B. high temperature applications.
Option C. low temperature applications.
Correct Answer is. high temperature applications.
Explanation. Graphite greases are used in high temperature applications.

Question Number. 19. If during an engine overhaul, ball or roller bearings are found to have magnetised but otherwise have no defects, they.
Option A. are in an acceptable service condition.
Option B. must be degaussed before use.
Option C. cannot be used again.
Correct Answer is. must be degaussed before use.
Explanation. Leaflet 4-7 4.9.

Question Number. 20. Ball and roller bearings are made from a combination of low carbon steel and a percentage of.
Option A. Chromium.
Option B. Nickel.
Option C. Nickel chrome.
Correct Answer is. Nickel.
Explanation. Outer rings are made from high carbon chromium alloy steel. Inner rings are made from low carbon nickel alloy steel and deep case carborized.

Question Number. 21. On inspection a bearing is found to have distortion, what action should be taken?.
Option A. Reject bearing.
Option B. No action required. Some distortion is normal.
Option C. Blend out distortion and re-grease bearing.
Correct Answer is. Reject bearing.
Explanation. NIL.

Question Number. 22. On inspection a bearing is found to show signs of overheating, what action should be taken?.
Option A. Reject bearing.
Option B. No action required. Some overheating is normal.
Option C. clean up bearing and repack with grease.
Correct Answer is. Reject bearing.
Explanation. NIL.

Question Number. 23. When a bearing has 2 parts and the inner ring and outer ring is installed.
Option A. neither of the practices are allowed.
Option B. the inner ring can be removed from its inner shaft for cleaning.
Option C. the outer ring can be removed from its housing for inspection.
Correct Answer is. the outer ring can be removed from its housing for inspection.
Explanation. NIL.

12. Transmissions.

Question Number. 1. A chain removed for routine inspection, it.
Option A. does not need proof loading.
Option B. must be proof loaded to 50%.
Option C. must be proof loaded to 150%.
Correct Answer is. does not need proof loading.
Explanation. Leaflet 5-4 6.6.

Question Number. 2. An aircraft control chain is connected using.
Option A. nuts and bolts.
Option B. quick release pins.
Option C. a split link and spring clip.
Correct Answer is. nuts and bolts.
Explanation. Leaflet 5-4 3.4.

Question Number. 3. If a control chain can be lifted clear of a tooth, it should be.
Option A. rejected as unserviceable.
Option B. removed and an elongation check carried out.
Option C. cleaned, re-tensioned and inspected after a period of time.
Correct Answer is. removed and an elongation check carried out.
Explanation. Leaflet 5-4 5.3.

Question Number. 4. To check a chain for articulation.
Option A. it should be run over the finger through 180° and checked for smoothness and kinks.
Option B. move each link individually and check for tightness.
Option C. lay on a flat surface and check for kinks.
Correct Answer is. it should be run over the finger through 180° and checked for smoothness and kinks.

Explanation. Jeppesen A&P Airframe Textbook 2-27.

Question Number. 5. How do you remove a tight link from a chain which is to be used on an aircraft control system?.
Option A. Dismantle, inspect, rectify and re-assemble the chain.
Option B. If the chain has a tight link, the chain has to be removed from service.
Option C. You may be able to remove the tight link by applying a light tap with a hammer.
Correct Answer is. You may be able to remove the tight link by applying a light tap with a hammer.
Explanation. Leaflet 5-4 6.4.

Question Number. 6. The initial lubricant on a new chain.
Option A. must be replaced with grade altitude grease.
Option B. should be removed and replaced with the approved oil.
Option C. should not be removed.
Correct Answer is. should not be removed.
Explanation. Leaflet 5-4 4.4.5.

Question Number. 7. Control chains should be fitted in an aircraft.
Option A. with the minimum of slack in the chain.
Option B. so that the chain can be removed easily.
Option C. with as much slack as possible to allow for contraction.
Correct Answer is. with the minimum of slack in the chain.
Explanation. NIL.

Question Number. 8. Backlash is a type of wear associated with.
Option A. gears.
Option B. rivets.
Option C. bearings.
Correct Answer is. gears.
Explanation. NIL.

Question Number. 9. After a chain has been cleaned in paraffin it should be.
Option A. hung up to drip dry.
Option B. dried in hot air.
Option C. washed in soapy water then hung to drip dry.
Correct Answer is. dried in hot air.
Explanation. AL/3-2 6.3.1 a.

Question Number. 10. What fraction of the minimum breaking load should be the proof load for a chain?.
Option A. 0.1.
Option B. 1/3.
Option C. 0.1%.
Correct Answer is. 1/3.
Explanation. Leaflet 5-4 3.3. AL/3-2 Para 6-6.

Question Number. 11. If corrosion is found on a chain.
Option A. replace the chain.
Option B. clean off the corrosion and if acceptable re-fit the chain.
Option C. lubricate the chain.
Correct Answer is. replace the chain.
Explanation. Leaflet 5-4 5.4. AL/3-2 Para 5-4.

Question Number. 12. The three principle dimensions specified for a chain is the diameter of the rollers and.
Option A. pitch and chain length.
Option B. the pitch and width between the inner plates.
Option C. the pitch and width across the outside of the plates.
Correct Answer is. the pitch and width between the inner plates.
Explanation. Leaflet 5-4 Para.3.1. AL/3-2 3.1.

Question Number. 13. The distance between the centers of the rollers of a chain is called.
Option A. pitch.
Option B. crest.
Option C. length.
Correct Answer is. pitch.
Explanation. Leaflet 5-4 3.3. AL/3-2 3.1.

Question Number. 14. Which of the following formulas should be used to calculate the percentage extension of an aircraft control chain? Note: M = Measured length under load in inches X = Number of pitches measured P = Pitch of chain in inches.
Option A. M + (X * X) * 100 / P * M.
Option B. X-(M * P) * 100 / M * P.
Option C. M-(X * P) * 100 / X * P.
Correct Answer is. M-(X * P) * 100 / X * P.

Explanation. AL/3-2 6.3.1 ©.

Question Number. 15. The maximum allowable extension of a chain assembly over a nominal length is.
Option A. 3%.
Option B. 5%.
Option C. 2%.
Correct Answer is. 2%.
Explanation. Leaflet 5-4 6.3.2. AL/3-2 Para 6.3.2.

Question Number. 16. A feather key locates a gear on a shaft and permits.
Option A. a positive drive with the gear firmly locked.
Option B. a positive and strong drive transmission.
Option C. a positive drive and axial movement.
Correct Answer is. a positive drive and axial movement.
Explanation. A feather key allows axial movement.

Question Number. 17. A chain is removed by.
Option A. nuts and bolts.
Option B. spring clips.
Option C. removing chain links on an endless chain.
Correct Answer is. nuts and bolts.
Explanation. Leaflet 5-4 3.4 & 6.

Question Number. 18. The box unit in a Teleflex control run which is not suitable for heavily loaded controls is called.
Option A. Double entry.
Option B. Single entry.
Option C. Straight lead.
Correct Answer is. Straight lead.
Explanation. Both single and double entry boxes are wrapped lead. External website. http://saywell.co.uk/pages/morseCon.htm

Question Number. 19. How do you check a chain for elongation?.
Option A. Hang chain up, check sight line and measure.
Option B. Adjust the end fittings.
Option C. Lay flat on a table, apply tensile load and measure.
Correct Answer is. Lay flat on a table, apply tensile load and measure.
Explanation. Leaflet 5-4 6.3.2. AL/3-2 Para 6.3.2.

13. Control Cables.

Question Number. 1. Proof testing after cable installation is.
Option A. sometimes required.
Option B. not required.
Option C. always required.
Correct Answer is. not required.
Explanation. NIL.

Question Number. 2. A control cable that has been contaminated with acid should be.
Option A. cleaned.
Option B. rejected.
Option C. cleaned, inspected, and reinspected after a period of time.
Correct Answer is. rejected.
Explanation. NIL.

Question Number. 3. A balance cable is installed in a control system to.
Option A. allow the aircraft to be flown 'hands off'.
Option B. correct for wing heaviness.
Option C. enable the cable to be tensioned.
Correct Answer is. enable the cable to be tensioned.
Explanation. A&P Technician Airframe Textbook 2-27.

Question Number. 4. How would you use a Pacific T5 tensiometer?.
Option A. Use correct chart and correct riser.
Option B. Use a standard riser and use the chart to correct for different sized cables.
Option C. Use a load meter to apply the correct load.
Correct Answer is. Use correct chart and correct riser.
Explanation. NIL.

Question Number. 5. What is the purpose of an aileron balance cable?.
Option A. Allows for hands off flying.
Option B. Equalizes control cable tension.
Option C. Relieves pilot loads.
Correct Answer is. Equalizes control cable tension.
Explanation. Jeppesen A&P Airframe Textbook 1-27.

Question Number. 6. How would you inspect a cable for fraying?.
Option A. Run your fingers the full length of the cable.
Option B. Operate the controls and feel for stiffness.
Option C. Run a rag the full length of the cable.
Correct Answer is. Run a rag the full length of the cable.
Explanation. Jeppesen A&P Airframe Textbook 1-43.

Question Number. 7. When manufacturing aircraft control cables, the cable can be cut by.
Option A. using a hacksaw with the cable under tension.
Option B. using an oxy-acetylene torch.
Option C. using a chisel on a flat metal surface.
Correct Answer is. using a chisel on a flat metal surface.
Explanation. CAAIP S Leaflet 2-12 3.6.

Question Number. 8. The check for a cable pulling out of a swaged fitting is by.

Option A. seeing that the cable is still past the safety holes in the swage.
Option B. looking for a shiny surface on the cable near the fitting.
Option C. seeing that there are no broken wires near the fitting.
Correct Answer is. looking for a shiny surface on the cable near the fitting.
Explanation. NIL.

Question Number. 9. A 'Reel' used to hold an aircraft cable in storage should have a minimum diameter of.
Option A. at least 25 times that of the cable diameter.
Option B. at least 50 times that of the cable.
Option C. at least 40 times that of the cable diameter.
Correct Answer is. at least 40 times that of the cable diameter.
Explanation. Leaflet 2-12 page 2 para 3.1.

Question Number. 10. Large control cables (45 to 120 cwt) may have tension loads that can break the locking wire or lease lock nuts. How is this overcome?.
Option A. The cable is kept slightly slack.
Option B. Duplicating the number of cables to cut down on individual tensile loads.
Option C. A tube is fitted over the turnbuckle assembly and drilled to take up to 3 bolts, to prevent independent rotation of any part.
Correct Answer is. A tube is fitted over the turnbuckle assembly and drilled to take up to 3 bolts, to prevent independent rotation of any part.

Explanation. CAIP S AL/3-7 Para. 9.5.8.

Question Number. 11. To correctly tension cables it can help.
Option A. to use a cable with turnbuckles at least every eight feet.
Option B. to take up initial slack by additional pulleys.
Option C. to have control surface locks in to support weight and adjust turnbuckles equally.
Correct Answer is. to have control surface locks in to support weight and adjust turnbuckles equally.
Explanation. NIL.

Question Number. 12. A cable is replaced.
Option A. when a shiny portion is found.
Option B. when each strand is worn to limits.
Option C. if a chemical spillage is suspected.
Correct Answer is. if a chemical spillage is suspected.
Explanation. NIL.

Question Number. 13. What is the proof loading for cables after swaging?.
Option A. 1/3 minimum breaking strain.
Option B. 2/3 minimum breaking strain.
Option C. 50% minimum breaking strain.
Correct Answer is. 50% minimum breaking strain.
Explanation. CAAIP S Leaflet 2-12 8.1.

Question Number. 14. The best way to check control cables for broken wires is to.
Option A. run a rag along the cable in both directions.
Option B. examine them visually.
Option C. increase the tension and check with a magnifying glass.
Correct Answer is. run a rag along the cable in both directions.
Explanation. AC43 7-149 (d).

Question Number. 15. If the turnbuckles in a control system are tightened excessively the result will be.
Option A. the cable will break.
Option B. the cables will vibrate excessively and cause failure of controls.
Option C. the aircraft will be heavy on controls.
Correct Answer is. the aircraft will be heavy on controls.
Explanation. AC43 7-149 (j).

Question Number. 16. A control cable is proof loaded to ensure that.
Option A. the end fittings on the cable are secure.
Option B. it will not stretch after fitting in an aircraft.
Option C. it will not break after fitting in an aircraft.
Correct Answer is. the end fittings on the cable are secure.
Explanation. Leaflet 2-12 8.

Question Number. 17. British turnbuckles are checked for safety by.
Option A. looking through the hole and checking for threads showing.
Option B. attempting to pass a hardened pin probe through the inspection hole.
Option C. attempting to push locking wire through the hole.
Correct Answer is. attempting to pass a hardened pin probe through the inspection hole.
Explanation. AL/3-7 9.5.7.

Question Number. 18. A suspected chemical spillage on a cable, you should.
Option A. clean, inspect and refit immediately.
Option B. replace the cable.
Option C. clean the cable and inspect 24 hours later.
Correct Answer is. replace the cable.
Explanation. NIL.

Question Number. 19. HTS aircraft control cables are protected from corrosion by.
Option A. Galvanising.
Option B. cadmium coating.
Option C. zinc plating.
Correct Answer is. Galvanising.
Explanation. Leaflet 2-12 2.3.

Question Number. 20. What is the purpose of the hole in the swaged end fitting on a swaged cable?.
Option A. To ensure the cable end passes the inspection hole on drilled through type fittings but leaves the locking wire hole clear.
Option B. To allow trapped air to escape.
Option C. To allow a split pin to be inserted.
Correct Answer is. To ensure the cable end passes the inspection hole on drilled through type fittings but leaves the locking wire hole clear.
Explanation. Leaflet 2-12 5.2 (d). CAIP S BL/6-24 5.2 (d).

Question Number. 21. The inspection hole in a turnbuckle is.
Option A. to allow the locking wire to pass through for the purpose of locking.
Option B. to ensure that the locknuts are adequately tightened.
Option C. to ensure that the turnbuckle is in safety.
Correct Answer is. to ensure that the turnbuckle is in safety.
Explanation. Leaflet 2-12 9.5.7. CAIP S AL/3-7 9.5.7.

Question Number. 22. Swaging of a cable end fitting is checked by.
Option A. measuring the length of the barrel before and after swaging.
Option B. using a go / no-go gauge on the barrel.
Option C. looking for cracks on the swage indicating poor swaging.
Correct Answer is. using a go / no-go gauge on the barrel.
Explanation. Leaflet 2-12 5.3 (b) Jeppesen A&P Airframe Technician Textbook 1-43.

Question Number. 23. A flight control cable is replaced if.
Option A. single wires are blended together.
Option B. a wire is 20% worn.
Option C. the protective fluid coating is missing.
Correct Answer is. single wires are blended together.
Explanation. AC43 7-149 g.

Question Number. 24. In aircraft control cables, when a lock is fitted to the control surface.
Option A. it will prevent the control surface movement but not the control column movement.
Option B. it will prevent the control surface and the control column movement.
Option C. it will not prevent the control surface movement but will lock the control column.
Correct Answer is. it will prevent the control surface and the control column movement.
Explanation. NIL.

Question Number. 25. When checking cable tensions you are looking for.
Option A. free movement only.
Option B. full and free movement.
Option C. artificial feel.
Correct Answer is. full and free movement.
Explanation. NIL.

Question Number. 26. A cable should be replaced when individual wires are worn greater than.
Option A. 40%.
Option B. 60%.
Option C. 20%.
Correct Answer is. 40%.
Explanation. AC43 Para 7-149 g.

14.1. Material Handling - Sheet metal.

Question Number. 1. The purpose of a joggle is.
Option A. to act as a tear stopper.
Option B. to make the holes for a rivet line up.
Option C. to produce a flush fit at a metal joint.
Correct Answer is. to produce a flush fit at a metal joint.
Explanation. A&P Technician Airframe Textbook 2-8.

Question Number. 2. Caustic soda applied to a metal turns black. This would indicate the metal is.
Option A. magnesium alloy.
Option B. duralumin.
Option C. aluminum.
Correct Answer is. duralumin.
Explanation. NIL.

Question Number. 3. Removal of a scratch from a sheet of metal requires.
Option A. polishing.
Option B. blending.
Option C. burnishing.
Correct Answer is. burnishing.
Explanation. A&P Mechanics Airframe Textbook Page 130.

Question Number. 4. When dimpling a sheet of metal you would require.
Option A. an oversized rivet and special reaction block.
Option B. a male and female die.
Option C. a male die only.
Correct Answer is. a male and female die.
Explanation. A&P Technician Airframe Textbook 2-59.

Question Number. 5. The skin on an aircraft is normally manufactured from.
Option A. 2024 aluminum alloy.
Option B. 7075 aluminum alloy.
Option C. 2117 aluminum alloy.
Correct Answer is. 2024 aluminum alloy.
Explanation. A&P Technician Airframe Textbook 2-7.

Question Number. 6. The mold point is.
Option A. the mid point in the thickness of a sheet of metal to which the radius dimension is calculated.
Option B. the centre of curvature of a radiused corner in a metal fabricated component.
Option C. an imaginary point from which real base measurements are provided.
Correct Answer is. an imaginary point from which real base measurements are provided.
Explanation. A&P Technician Airframe Textbook 2-71.

Question Number. 7. Relief holes are.
Option A. holes drilled in a battery container to provide drainage.
Option B. holes drilled in the corner of a metal box to prevent cracking.
Option C. holes drilled to stop a crack.
Correct Answer is. holes drilled in the corner of a metal box to prevent cracking.
Explanation. A&P Technician Airframe Textbook 2-77.

Question Number. 8. The 'setback' is.
Option A. the distance from the edge of the metal to the bend tangent line.
Option B. the distance from the mold point to the bend tangent line.
Option C. the distance from the bend tangent line to the setback line.
Correct Answer is. the distance from the mold point to the bend tangent line.
Explanation. A&P Technician Airframe Textbook 2-71.

Question Number. 9. Faying surfaces are.
Option A. surfaces that are in contact with each other.
Option B. surfaces that are stressed.
Option C. surfaces that have been treated with anti-corrosion compound.
Correct Answer is. surfaces that are in contact with each other.
Explanation. NIL.

Question Number. 10. In sheet metal bending, how would you measure the bend radius to calculate the bend allowance?.

Option A. Measure to the inside of the bend radius.
Option B. Measure to the outside of the bend radius.
Option C. Measure to the inside of the bend radius plus half the metal thickness.
Correct Answer is. Measure to the inside of the bend radius.
Explanation. Jeppesen A & P Tecnician Airframe Textbook pg 2-70.

Question Number. 11. When dimpling sheet with a squeeze dimpling tool.
Option A. the jaws are not adjustable.
Option B. adjust the jaws to accommodate different material gauges.
Option C. use a lubricant.
Correct Answer is. adjust the jaws to accommodate different material gauges.
Explanation. Jeppesen A&P Airframe Textbook 2-59.

Question Number. 12. Bend radius on sheet metal is.
Option A. inside radius + ½ thickness.
Option B. inside radius.
Option C. outside radius.
Correct Answer is. inside radius.
Explanation. Jeppesen A&P Airframe Textbook 2-70.

Question Number. 13. Aircraft skin is joggled to.
Option A. Provide smooth airflow at faying surfaces.
Option B. Make a frame lighter but stronger.
Option C. Conform with the 'Area Rule'.
Correct Answer is. Provide smooth airflow at faying surfaces.
Explanation. Jeppesen A & P Tecnician Airframe Textbook pg 2-82.

Question Number. 14. DZinc Chromate applied between faying surfaces will.
Option A. improve adhesion thus relieving the amount of riveting necessary.
Option B. improve bonding between them.
Option C. inhibit dissimilar metal (electrolytic) corrosion.
Correct Answer is. inhibit dissimilar metal (electrolytic) corrosion.
Explanation. NIL.

Question Number. 15. If a non-ferrous metal being examined by chemical test turns black when caustic soda is applied to the surface, the metal is.
Option A. duralumin.
Option B. alclad.
Option C. aluminum.
Correct Answer is. duralumin.

Explanation. NIL.

Question Number. 16. To aid marking out on Fe metals use.
Option A. graphite grease.
Option B. copper sulphate solution.
Option C. engineer's blue.
Correct Answer is. copper sulphate solution.
Explanation. Fe means Ferrous. Copper sulphate solution should be used.

Question Number. 17. The sight line on a sheet metal flat layout to be bent in a cornice or box brake is measured and marked.
Option A. one-half radius from either bend tangent line.
Option B. one radius from the bend tangent line that is placed under the brake.
Option C. one radius from either bend tangent line.
Correct Answer is. one radius from the bend tangent line that is placed under the brake.
Explanation. A&P Airframe Textbook 5-60 Pg 232 Fig 5-118.

Question Number. 18. If copper sulphate is used on magnesium alloy it will.
Option A. effervesce to a copper colour.
Option B. have no effect.
Option C. effervesce to a black colour.
Correct Answer is. effervesce to a black colour.
Explanation. NIL.

Question Number. 19. If it is necessary to compute a bend allowance problem and bend allowance tables are not available, the neutral axis of the bend can be.
Option A. found by adding approximately one-half of the stock thickness to the bend radius.
Option B. found by subtracting the stock thickness from the bend radius.
Option C. represented by the actual length of the required material for the bend.
Correct Answer is. found by adding approximately one-half of the stock thickness to the bend radius.
Explanation. Jeppesen A & P Technician Airframe pg 2-73 fig 2-131.

Question Number. 20. The formula for setback for a 90° bend is.
Option A. (½R + T).
Option B. (R + T).
Option C. (R + ½T).
Correct Answer is. (R + T).

Explanation. A&P Airframe Textbook 5-55 Pg 227 Fig 5-112.

Question Number. 21. Caustic soda placed on the edge of alclad will turn.
Option A. white – black – white.
Option B. all white.
Option C. black – white – black.
Correct Answer is. white – black – white.
Explanation. NIL.

Question Number. 22. In marking a light alloy.
Option A. the scriber must be held at an angle to give a smooth line where bending is required.
Option B. caustic soda is used.
Option C. a pencil is used to mark the material and all marks removed after bending.
Correct Answer is. a pencil is used to mark the material and all marks removed after bending.
Explanation. BL/6-29 4.1A&P General Textbook 9-33 Pg 32.

Question Number. 23. When assembling metals of different potential, corrosion may be inhibited by application of.
Option A. zinc or chromic acid & assemble while wet.
Option B. zinc or barium chromate & assemble while wet.
Option C. nothing - assemble bare.
Correct Answer is. zinc or barium chromate & assemble while wet.
Explanation. BL/4-2 4.4.6.

Question Number. 24. Steel wire brushes or steel wool should.
Option A. be used to clean magnesium alloys.
Option B. be used to clean aluminum sheet.
Option C. never be used on light alloys.
Correct Answer is. never be used on light alloys.
Explanation. NIL.

Question Number. 25. When a piece of metal is bent, the surface of the metal on the outside of the bend is.
Option A. in compression.
Option B. neither in tension or in compression.
Option C. in tension.
Correct Answer is. in tension.

Explanation. NIL.

Question Number. 26. The sight line of a bend is.
Option A. at the tangent line.
Option B. half a radius from the tangent line.
Option C. one radius from the tangent line.
Correct Answer is. one radius from the tangent line.
Explanation. NIL.

Question Number. 27. The sharpest bend that can be placed in a piece of metal without critically weakening the part is called the.
Option A. maximum radius of bend.
Option B. minimum radius of bend.
Option C. bend allowance.
Correct Answer is. minimum radius of bend.
Explanation. Jeppesen A&P Airframe Technician Textbook Page 2-70.

Question Number. 28. Scribers are used to.
Option A. produce an accurate finish.
Option B. make centre pop marks for drilling.
Option C. mark guide lines on material.
Correct Answer is. mark guide lines on material.
Explanation. NIL.

Question Number. 29. A hole drilled at the intersection of two bends in a fabricated sheet metal component is called.
Option A. a drain hole.
Option B. a crack stopper.
Option C. a relief hole.
Correct Answer is. a relief hole.
Explanation. BL/6-14 2.2.3 and 3.1.

Question Number. 30. Dissimilar metal diffusion bonding gives.
Option A. high strength and ductility.
Option B. high strength and stiffness.
Option C. high strength and brittleness.
Correct Answer is. high strength and stiffness.
Explanation. NIL.

Question Number. 31. Marking out on stainless steel can be clarified by application of.
Option A. ammonia.
Option B. copper sulphate.
Option C. sal ammoniac.
Correct Answer is. copper sulphate.
Explanation. Copper sulphate is used to aid marking out of steel.

Question Number. 32. When drawing lines on aluminum alloy sheet prior to bending.
Option A. a thin coat of zinc chromate primer should be used, ready for pencil lines.
Option B. a scriber should be used.
Option C. a wax pencil should be used.
Correct Answer is. a thin coat of zinc chromate primer should be used, ready for pencil lines.
Explanation. CAIP BL/6-29 4.1.

Question Number. 33. After solution treatment of aluminum alloy, the effect of immediate refrigeration at a temperature with the range -15°C to -20°C is.
Option A. to suspend natural ageing for a limited period.
Option B. to permanently soften the metal to retard the onset of fatigue.
Option C. to increase the rate of artificial ageing.
Correct Answer is. to suspend natural ageing for a limited period.
Explanation. BL/9-1 9. BL/6-27 6.2.

Question Number. 34. Diffusion bonding and superplastic forming provides.
Option A. high strength and high ductility.
Option B. high strength and high stiffness.
Option C. high stiffness and high ductility.
Correct Answer is. high stiffness and high ductility.
Explanation. NIL.

14.2. Material Handling - Composite and non-metallic.

Question Number. 1. In a composite repair lay-up, how much should each layer extend beyond the layer below it?.
Option A. 2 - 3 inches.
Option B. 1 - 2 inches.
Option C. 3 - 4 inches.

Correct Answer is. 1 - 2 inches.
Explanation. AC43 Page 3-5.

Question Number. 2. To enable a composite panel to dissipate static charge it would be sprayed with.
Option A. polyurethane paint.
Option B. ferrous paint.
Option C. aluminum paint.
Correct Answer is. aluminum paint.
Explanation. NIL.

Question Number. 3. A mechanic has completed a bonded honeycomb repair using the potted compound repair technique. What non-destructive testing method is used to determine the soundness of the repair after the repair has cured?.
Option A. Eddy current test.
Option B. Metallic ring test.
Option C. Ultrasonic test.
Correct Answer is. Metallic ring test.
Explanation. NIL.

Question Number. 4. A non-destructive testing technique which is suitable for inspecting for delamination in Redux bonded structure of light aluminum alloys is.
Option A. ultrasonic.
Option B. eddy-current.
Option C. magnetic flow.
Correct Answer is. ultrasonic.
Explanation. NIL.

Question Number. 5. Why is an extra layer of fiberglass added to a composite repair?.
Option A. To provide additional flexibility.
Option B. For sacrificial sanding.
Option C. To increase the strength of the repair.
Correct Answer is. To increase the strength of the repair.
Explanation. AC43 3-3(3) page 3-5.

Question Number. 6. How do you reduce or remove electrostatic charges which may build up on fiberglass surfaces?.

Option A. No special treatment is necessary because fiber glass is an insulator.
Option B. The surface is treated with a special conductive paint.
Option C. The surface is impregnated with copper strips.
Correct Answer is. The surface is treated with a special conductive paint.
Explanation. Leaflet 9-1 3.4.4.

Question Number. 7. Prior to aluminum alloy bonding we use.
Option A. alkaline etch.
Option B. acid etch.
Option C. solvent wipe.
Correct Answer is. acid etch.
Explanation. Phosphoric acid and chromic acid wash.

Question Number. 8. Glass reinforced panels are bonded by.
Option A. special conductive paint.
Option B. wire mesh.
Option C. bonding strips to conductors.
Correct Answer is. special conductive paint.
Explanation. Leaflet 9-1 para.3.4.4.

Question Number. 9. What solvents could you use to clean tools used for fiberglass repairs?.
Option A. Trichloroethylene or acetone.
Option B. Lead free petrol/kerosene.
Option C. acetone or MEK.
Correct Answer is. acetone or MEK.
Explanation. CAIP S AL/7-6 6.6.

Question Number. 10. Chopped strand mat is a good general purpose mat because.
Option A. it has short fibers.
Option B. it gives equal properties in all directions.
Option C. it is a stiffer than woven cloth.
Correct Answer is. it gives equal properties in all directions.
Explanation. NIL.

15a. Welding, Brazing, Soldering and Bonding.

Question Number. 1. Before soldering stainless steel it must be.
Option A. pickled.
Option B. cleaned with emery cloth.
Option C. sand papered.
Correct Answer is. pickled.
Explanation. BL/6-1 5.3.

Question Number. 2. Insufficient heat used in soldering will cause.
Option A. the joint to oxidize.
Option B. a high resistance joint potential.
Option C. contamination of the joint.
Correct Answer is. a high resistance joint potential.
Explanation. NIL.

Question Number. 3. A dry joint when soldering is caused by.
Option A. too large an iron.
Option B. too much flux.
Option C. too little heat.
Correct Answer is. too little heat.
Explanation. NIL.

Question Number. 4. The oxyacetylene flame for silver soldering should be.
Option A. oxidizing.
Option B. carbonising.
Option C. neutral.
Correct Answer is. neutral.
Explanation. BL/6-2 12.2.4 (Silver soldering is also known as low temperature brazing).

Question Number. 5. A flux is used in soldering to.
Option A. to dissolve oxides.
Option B. etch the metals surface for more adhesion.
Option C. to prevent solder spikes.
Correct Answer is. to dissolve oxides.
Explanation. NIL.BL/6-1 4.2.

Question Number. 6. Plumbers solder is grade.
Option A. C.

Option B. D.
Option C. B.
Correct Answer is. D.
Explanation. NIL.BL/6-1 4.1 table 2.

Question Number. 7. Why is it necessary to use flux in all silver soldering operations?.
Option A. To increase heat conductivity.
Option B. To prevent overheating of the base metal.
Option C. To chemically clean the base metal of oxide film.
Correct Answer is. To chemically clean the base metal of oxide film.
Explanation. BL/ 6-2 Para 5-2.

Question Number. 8. When making a small soldered electrical connection, using flux-cored solder.
Option A. the connection should be heated first and then solder applied.
Option B. the soldering iron and solder should be applied simultaneously to the connection.
Option C. the soldering iron should be loaded with solder and then applied to the connection.
Correct Answer is. the soldering iron and solder should be applied simultaneously to the connection.
Explanation. NIL.

Question Number. 9. The type of flux to be used when soft soldering on aircraft is.
Option A. active.
Option B. non-active.
Option C. either active or non-active.
Correct Answer is. non-active.
Explanation. BL/6-1 4.2.8.

Question Number. 10. The operational temperature of soldering irons is.
Option A. fjust above the melting point of solder.
Option B. below the melting point of the base metal.
Option C. 60°C above the melting point of solder.
Correct Answer is. 60°C above the melting point of solder.
Explanation. NIL.

Question Number. 11. What elements is solder made from?.

Option A. Tin, lead and copper.
Option B. Tin and lead only.
Option C. Tin, lead and silver.
Correct Answer is. Tin and lead only.
Explanation. BL/6-1.

Question Number. 12. General purpose solders are graded by.
Option A. a colour coding.
Option B. a letter coding.
Option C. a numerical coding.
Correct Answer is. a letter coding.
Explanation. BL/6-1 table 2.

Question Number. 13. What solder should be used to solder aluminum?.
Option A. D.T.D. 685 lead-silver-tin solder.
Option B. 90% tin and 10% zinc.
Option C. wire flux cored solder.
Correct Answer is. wire flux cored solder.
Explanation. CAIP S BL/6-1, 14.

Question Number. 14. Solder can be used to join.
Option A. some dissimilar metals.
Option B. only copper based metals.
Option C. similar metals only.
Correct Answer is. some dissimilar metals.
Explanation. NIL.

Question Number. 15. A flux is used in soldering to.
Option A. dissolve oxides.
Option B. prevent solder spikes.
Option C. etch the metal surface for more adhesion.
Correct Answer is. dissolve oxides.
Explanation. NIL.

Question Number. 16. On completion of soldering a non-activated flux.
Option A. must be cleaned off with an acid solution.
Option B. need not be cleaned off.
Option C. must be cleaned off with a selected solvent.
Correct Answer is. must be cleaned off with a selected solvent.
Explanation. CAIP BL/6-1 para 4.2.3.

Question Number. 17. A dry joint in soldering is most likely to be caused by.
Option A. flux not used.
Option B. components not hot enough.
Option C. wrong solder used.
Correct Answer is. components not hot enough.
Explanation. All are possibly correct, but the iron not being hot enough is sure to produce a dry joint.

Question Number. 18. What action is taken when soldering flux residue may have lodged in deep crevices of an assembly?.
Option A. It must be immersed in a weak solution of hydrochloric acid and rinsed thoroughly in running water.
Option B. It must be immersed in a weak solution of phosphoric acid and rinsed in water.
Option C. It must be thoroughly rinsed with a weak solution of sulphuric acid and washed in cold water.
Correct Answer is. It must be immersed in a weak solution of hydrochloric acid and rinsed thoroughly in running water.
Explanation. BL/6-1 8.6.

Question Number. 19. A phosphate based flux paste is for soldering.
Option A. aluminum.
Option B. brass.
Option C. stainless steel.
Correct Answer is. stainless steel.
Explanation. BL/6-1 4.2.5.

Question Number. 20. The soldering method where molten solder is pumped from the bottom of a bath through a slot so that a stationary wave of solder appears on the surface is known as the.
Option A. rotary bath method.
Option B. stationary wave method.
Option C. standing wave bath method.
Correct Answer is. standing wave bath method.
Explanation. CAIP S BL/6-1, 9.2.

Question Number. 21. Solders are available in two forms:.
Option A. stick solder with a rosin core and solder in a wire form having a rosin core.

Option B. Solder in a wire form needing a separate flux and stick solder needing no flux at all.
Option C. stick solder needing a separate flux and solder in wire form having a rosin core.
Correct Answer is. stick solder needing a separate flux and solder in wire form having a rosin core.
Explanation. BL/6-1 4.1.

Question Number. 22. A resurfaced soldering iron cannot be used effectively until after the working face has been.
Option A. fluxed.
Option B. polished.
Option C. tinned.
Correct Answer is. tinned.
Explanation. CAIP S BL/6-1, 6.1.1.

Question Number. 23. High temperature solder is used where the operating temperature is high. It is an alloy of.
Option A. lead / copper / antimony.
Option B. tin / zinc / antimony / silver.
Option C. tin / lead / antimony / silver.
Correct Answer is. tin / lead / antimony / silver.
Explanation. CAIP S BL/6-1, 4.1.2.

Question Number. 24. Soft solder is suited for joints, which are.
Option A. subjected to fatigue.
Option B. subjected to strong forces.
Option C. subjected to small forces.
Correct Answer is. subjected to small forces.
Explanation. AC43 page 4061 para 4. BL/6-1.

Question Number. 25. Silver solder melts within the range.
Option A. 400°C - 550°C.
Option B. 200°C - 400°C.
Option C. 600°C - 850°C.
Correct Answer is. 600°C - 850°C.
Explanation. BL/6-2, Para 1.1.

Question Number. 26. The term 'dry joint' is usually applied to.
Option A. a metal being lightly heated.

Option B. a defect associated with a soldered joint.
Option C. a water tight joint.
Correct Answer is. a defect associated with a soldered joint.
Explanation. NIL.

Question Number. 27. Silver soldering is suited for.
Option A. electronic component soldering.
Option B. high temperature applications.
Option C. general soldering work.
Correct Answer is. high temperature applications.
Explanation. BL/6-1 Para.4.1.2.

Question Number. 28. Silver solder is made from.
Option A. tin, copper and zinc.
Option B. copper, tin and silver.
Option C. copper, zinc and silver.
Correct Answer is. copper, zinc and silver.
Explanation. Workshop Technology WAJ Chapman Page 105.

Question Number. 29. The materials most commonly soldered in soft soldering are.
Option A. brass and mild steel.
Option B. stainless steel and titanium.
Option C. aluminum and magnesium.
Correct Answer is. brass and mild steel.
Explanation. NIL.

15b. Welding, Brazing, Soldering and Bonding.

Question Number. 1. What purpose does flux serve in welding aluminum?.
Option A. Ensures proper distribution of the filler rod.
Option B. Removes dirt, grease, and oil.
Option C. Minimises or prevents oxidation.
Correct Answer is. Minimises or prevents oxidation.
Explanation. NIL.

Question Number. 2. The shielding gases generally used in the Tungsten Inert Gas (TIG) welding of aluminum consist of.
Option A. nitrogen or hydrogen, or a mixture of nitrogen and hydrogen.

Option B. a mixture of nitrogen and carbon dioxide.
Option C. helium or argon, or a mixture of helium and argon.
Correct Answer is. helium or argon, or a mixture of helium and argon.
Explanation. NIL.

Question Number. 3. Which items listed below is the most important consideration when selecting a welding rod?.
Option A. Thickness of the metal to be welded only.
Option B. Type of torch.
Option C. Type and thickness of the metal to be welded.
Correct Answer is. Type and thickness of the metal to be welded.
Explanation. BL/6-4 2 & 4.1.

Question Number. 4. What is a good weld?.
Option A. Build up by 1/8 inch in the middle of the weld.
Option B. An oxide coating on the base metals.
Option C. Sides sloping to the base metals.
Correct Answer is. Sides sloping to the base metals.
Explanation. Jeppesen A & P airframe technician textbook p 4-9.

Question Number. 5. Brazing material is made from.
Option A. copper zinc and silver.
Option B. copper and tin and lead.
Option C. copper, silver and tin.
Correct Answer is. copper zinc and silver.
Explanation. Workshop Technology WAJ Chapman Page 103.

Question Number. 6. Filing or grinding a weld bead.
Option A. may be necessary to avoid adding excess weight or to achieve uniform material thickness.
Option B. may be performed to achieve a smoother surface.
Option C. reduces the strength of the joint.
Correct Answer is. reduces the strength of the joint.
Explanation. CAAIP S Leaflet 2-10 3.

Question Number. 7. The primary reason for using flux when welding aluminum is to.
Option A. prevent oxides from forming ahead of the weld.
Option B. prevent molten metal from flowing too widely.
Option C. promote better fusion of the base metal at a lower temperature.

Correct Answer is. prevent oxides from forming ahead of the weld.
Explanation. BL/6-4 2.

Question Number. 8. In Gas Tungsten Arc (GTA) welding, a stream of inert gas is used to.
Option A. lower the temperature required to properly fuse the metal.
Option B. prevent the formation of oxides in the puddle.
Option C. concentrate the heat of the arc and prevent its dissipation.
Correct Answer is. prevent the formation of oxides in the puddle.
Explanation. NIL.

Question Number. 9. After welding you would normalise to.
Option A. remove oxidation from the welded joint.
Option B. remove carbon build up from the welded joint.
Option C. release the stresses from the material.
Correct Answer is. release the stresses from the material.
Explanation. Normalising removes local stresses set up by the heat, and in turn prevents corrosion.

Question Number. 10. The flux used during brazing is a mixture of water and.
Option A. zinc chloride.
Option B. hydrochloric acid.
Option C. borax powder.
Correct Answer is. borax powder.
Explanation. NIL.

Question Number. 11. Oxides form very rapidly when alloys or metals are hot. It is important, therefore, when welding aluminum to use a.
Option A. solvent.
Option B. filler.
Option C. flux.
Correct Answer is. flux.
Explanation. BL6-4 8.2.2.

Question Number. 12. Which statement concerning a welding process is true?.
Option A. In the oxyacetylene welding process, the filler rod used for steel is covered with a thin coating of flux.
Option B. In the metallic-arc welding process, filler material, if needed, is provided by a separate metal rod of the proper material held in the arc.

Option C. The inert-arc welding process uses an inert gas to protect the weld zone from the atmosphere.
Correct Answer is. The inert-arc welding process uses an inert gas to protect the weld zone from the atmosphere.
Explanation. Jeppesen A & P airframe technician textbook pg 4-4 Gas Metal Arc Welding paragraph.

Question Number. 13. When inspecting a butt-welded joint by visual means.
Option A. the penetration should be 100 percent of the thickness of the base metal.
Option B. the penetration should be 25 to 50 percent of the thickness of the base metal.
Option C. look for evidence of excessive heat in the form of a very high bead.
Correct Answer is. the penetration should be 100 percent of the thickness of the base metal.
Explanation. Jeppesen A&P General Textbook 11-4 and Jeppesen A&P Airframe Textbook 4-2.Jeppesen A&P General Textbook 11-4 and Jeppesen A&P Airframe Textbook 4-2.

Question Number. 14. What is undesirable in a good weld?.
Option A. oxides mixed in with the filler material.
Option B. fusing the edges of materials to be joined.
Option C. 100% penetration by filler material.
Correct Answer is. oxides mixed in with the filler material.
Explanation. NIL.

Question Number. 15. In selecting a torch tip size to use in welding, the size of the tip opening determines the.
Option A. temperature of the flame.
Option B. melting point of the filler metal.
Option C. amount of heat applied to the work.
Correct Answer is. amount of heat applied to the work.
Explanation. NIL.

Question Number. 16. The most important consideration(s) when selecting welding rod is/are.
Option A. material compatibility.
Option B. current setting or flame temperature.
Option C. ambient conditions.
Correct Answer is. material compatibility.

Explanation. NIL.

Question Number. 17. When inspecting a weld, you should make sure that.
Option A. the parent (or basis) materials are fully fused together.
Option B. the weld has inclusions inside the bead.
Option C. there are voids either side of the weld.
Correct Answer is. the parent (or basis) materials are fully fused together.
Explanation. BL/6-4 13.1 (a) and BL/6-5 8.4 (a) and AC43.13-1B Page 4-54 Para.4-48.

16a. Aircraft Weight and Balance.

Question Number. 1. Fore and aft limits of the CG.
Option A. are determined by the pilot when calculating the loading data.
Option B. are specified by the manufacturer.
Option C. are determined by the licensed engineer after a major check and weighing.
Correct Answer is. are specified by the manufacturer.
Explanation. Leaflet 1-4 3.3.2.

Question Number. 2. What angle of turn will double the weight of the aircraft?.
Option A. 30°.
Option B. 60°.
Option C. 45°.
Correct Answer is. 60°.
Explanation. NIL.

Question Number. 3. The basic equipment of an aircraft is.
Option A. that equipment which is required for every role of the aircraft for which the aircraft is operated plus unusable fuel.
Option B. all equipment including fuel and oil necessary for a particular flight.
Option C. the crew equipment, and other equipment including fuel and oil necessary for a particular flight.
Correct Answer is. that equipment which is required for every role of the aircraft for which the aircraft is operated plus unusable fuel.
Explanation. Leaflet 1-4 1.2 a.

Question Number. 4. Aircraft measurements aft of the datum are.
Option A. either positive or negative.
Option B. positive.

Option C. negative.
Correct Answer is. positive.
Explanation. Leaflet 1-4 3.2.1.

Question Number. 5. A Weight and Centre of Gravity Schedule is required by.
Option A. all aircraft above 2730 kg MTWA.
Option B. all aircraft not exceeding 2730 kg MTWA.
Option C. all aircraft regardless of weight.
Correct Answer is. all aircraft above 2730 kg MTWA.
Explanation. Leaflet 1-4 2.9.1 (a).

Question Number. 6. Aircraft below 5700kg not used for commercial air transport purposes are required to be reweighed.
Option A. every 2 years.
Option B. every 5 years.
Option C. as required by the CAA.
Correct Answer is. as required by the CAA.
Explanation. CAIP S BL/6-3 6.4.

Question Number. 7. Variable load is weight of.
Option A. crew, their baggage and equipment relevant to role.
Option B. fuel, oil and non-expendable equipment relevant to role.
Option C. basic weight plus operating weight.
Correct Answer is. crew, their baggage and equipment relevant to role.
Explanation. BL/ 1-11 Para 1-2 (c).

Question Number. 8. The term 'reaction' used in weighing an aircraft refers to.

Option A. the sum of the loads on the main landing gear only.
Option B. the individual loads on each landing gear.
Option C. the sum of the loads on all of the landing gear.
Correct Answer is. the individual loads on each landing gear.
Explanation. Leaflet 1-4 1.2 (f).

Question Number. 9. Aircraft must be reweighed.
Option A. after two years from manufacture only.
Option B. after two years from manufacture then at periods not exceeding five years.
Option C. at periods not exceeding five years.

Correct Answer is. after two years from manufacture then at periods not exceeding five years.
Explanation. Leaflet 1-4 2.2.

Question Number. 10. For purposes of calculating weight and C of G position, an adult male (with baggage) is considered to have a mass of.
Option A. 85 kg.
Option B. 65 kg.
Option C. 75 kg.
Correct Answer is. 85 kg.
Explanation. JAR OPS (with baggage) and AN(G)R Para 4 refers to Flight Crew mass of 85 kg. (Cabin crew 75 kG).

Question Number. 11. Points forward of the datum point are.
Option A. negative.
Option B. neutral.
Option C. positive.
Correct Answer is. negative.
Explanation. Leaflet 1-4 3.2.1.

Question Number. 12. Where would you find documented, the fore and aft limits of the C of G position?.
Option A. In the aircraft Maintenance Manual.
Option B. In the Flight Manual (or the documentation associated with the C of A).
Option C. In the technical log.
Correct Answer is. In the Flight Manual (or the documentation associated with the C of A).
Explanation. Leaflet 1-4 2.9.4 and 3.3.2.

Question Number. 13. Previous weighing records are.
Option A. retained for 2 yrs only.
Option B. are kept with aircraft records.
Option C. destroyed after 5 yrs.
Correct Answer is. are kept with aircraft records.
Explanation. Leaflet 1-4 2.7.

Question Number. 14. A Load Sheet is compiled in the order of.
Option A. Variable Load, Fuel Load, Disposable Load, Basic Weight.
Option B. Basic Weight, Variable Load, Disposable Load, Fuel Load.

Option C. Basic Weight, Variable Load, Fuel Load, Disposable Load.
Correct Answer is. Basic Weight, Variable Load, Disposable Load, Fuel Load.
Explanation. Leaflet 1-4 Page 24.

Question Number. 15. A Weight and Centre of Gravity Schedule must be signed by.
Option A. the CAA.
Option B. the pilot.
Option C. a Licensed aircraft engineer.
Correct Answer is. a Licensed aircraft engineer.
Explanation. Leaflet 1-4 2.9.

Question Number. 16. An aircraft which has its C of G forward of the Forward Limit.
Option A. the take-off run will not be affected.
Option B. will have a longer take-off run.
Option C. will have a shorter take-off run.
Correct Answer is. will have a longer take-off run.
Explanation. Leaflet 1-4 3.3.1.

Question Number. 17. The basic weight of an aircraft is.
Option A. the pilot, flight crew and their luggage.
Option B. the passengers, baggage and fuel.
Option C. the aircraft, minimum equipment, unusable fuel and oil.
Correct Answer is. the aircraft, minimum equipment, unusable fuel and oil.
Explanation. CAIP S BL/ 1-11 Para 1-2 (b).

Question Number. 18. When an aircraft has been reweighed under JAR OPS, what should be done to the old Weight and Balance Report?.
Option A. Kept in the aircraft logbook.
Option B. Destroyed after 3 months.
Option C. Kept in the weight and balance schedule.
Correct Answer is. Destroyed after 3 months.
Explanation. JAR OPS Subpart P.

Question Number. 19. If the C of G of an aircraft with a full complement of fuel is calculated. Then.
Option A. the C of G will always be within limits if it was within limits with full fuel tanks.

Option B. the C of G must be recalculated with zero fuel to ensure it will still be within limits.
Option C. the C of G will only need to be recalculated if the fuel weight is behind the aircraft C of G position.
Correct Answer is. the C of G must be recalculated with zero fuel to ensure it will still be within limits.
Explanation. NIL.

Question Number. 20. Cargo placed aft of the datum will produce a.
Option A. neutral moment.
Option B. negative moment.
Option C. positive moment.
Correct Answer is. positive moment.
Explanation. Leaflet 1-4 5.4.4 (a).

Question Number. 21. A load sheet.
Option A. need not be carried on the aircraft if one remains at base.
Option B. is always carried on the aircraft.
Option C. is never carried on the aircraft.
Correct Answer is. is always carried on the aircraft.
Explanation. NIL.

Question Number. 22. The Datum point on an aircraft, for measuring C of G position could be.
Option A. the front bulkhead.
Option B. anywhere on the aircraft.
Option C. the nose of the aircraft.
Correct Answer is. anywhere on the aircraft.
Explanation. AC43 Page 10-1 para F, and A&P general textbook 6-4 Pg 250 'Datum'.

Question Number. 23. Increasing the weight of an aircraft.
Option A. increases the glide range.
Option B. has no affect on the glide range.
Option C. decreases the glide range.
Correct Answer is. has no affect on the glide range.
Explanation. Mechanics of Flight Kermode Page 194.

Question Number. 24. A load Sheet must be signed by.
Option A. a licensed aircraft engineer.

Option B. the Commander of the aircraft.
Option C. the Loading Officer.
Correct Answer is. the Commander of the aircraft.
Explanation. NIL.

Question Number. 25. What is meant by empty weight?.
Option A. Basic weight only.
Option B. Basic weight minus unusable fuel plus oil.
Option C. Basic weight plus unusable fuel plus oil.
Correct Answer is. Basic weight plus unusable fuel plus oil.
Explanation. Jeppesen A&P General Textbook 6-2.

Question Number. 26. A Weight and Centre of Gravity Schedule is to be raised.
Option A. in triplicate, for the CAA, the operator and the maintenance organisation.
Option B. in duplicate, for the CAA and the operator.
Option C. once only, for the CAA.
Correct Answer is. in duplicate, for the CAA and the operator.
Explanation. Leaflet 1-4 2.9.4.

Question Number. 27. Where would you find the information on the conditions for weighing the aircraft?.
Option A. Maintenance Manual.
Option B. Technical Log.
Option C. Flight Manual in conjunction with the documents associated with the CofA.
Correct Answer is. Maintenance Manual.
Explanation. The information is in both Flight Manual and AMM. However the Flight Manual is for the loaded aircraft, and the AMM is for the Basic Aircraft, the latter being most relevant to the aircraft engineer.

Question Number. 28. In aeronautical weighing terms.
Option A. all arms for forward of the reference datum are positive (+) and all arms aft of the reference datum are negative (-).
Option B. all reference datum are as per company procedures.
Option C. all arms for forward of the reference datum are negative (-) and all arms aft of the reference datum are positive (+).
Correct Answer is. all arms for forward of the reference datum are negative (-) and all arms aft of the reference datum are positive (+).

Explanation. NIL.

Question Number. 29. Details on recording of weight and C of G position can be found in.
Option A. BCAR section A.
Option B. Air Navigation Order.
Option C. Airworthiness Notices.
Correct Answer is. BCAR section A.
Explanation. Leaflet 1-4 2.1.

Question Number. 30. If a new Weight and Centre of Gravity Schedule is issued, the old one must be retained for.
Option A. one year.
Option B. two years.
Option C. six months.
Correct Answer is. six months.
Explanation. JAR OPS 1.920.

16b. Aircraft Weight and Balance.

Question Number. 1. A weighing cell is based on the variation of.
Option A. induced voltage with displacement.
Option B. resistance with strain.
Option C. differential currents with stress.
Correct Answer is. resistance with strain.
Explanation. NIL.

Question Number. 2. When weighing an aircraft using elastic load cells, the load cells go.
Option A. as a single unit or combination of units under the aircraft wheels.
Option B. between undercarriage and aircraft.
Option C. between top of jack and the aircraft.
Correct Answer is. as a single unit or combination of units under the aircraft wheels.
Explanation. Leaflet 1-4 4.5.1.

Question Number. 3. When weighing an aircraft with load cells.
Option A. only the main wheels are weighed.
Option B. the aircraft is jacked.
Option C. a load cell should be placed under each set of wheels.

Correct Answer is. the aircraft is jacked.
Explanation. Leaflet 1-4 4.4.

Question Number. 4. When weighing an aircraft, the hydrostatic weighing units are positioned.
Option A. either under or on top of each jack.
Option B. one under each jack.
Option C. one on top of each jack.
Correct Answer is. one on top of each jack.
Explanation. NIL.

Question Number. 5. When weighing an aircraft, the hydraulic system should be.
Option A. empty.
Option B. completely full.
Option C. filled to 'maximum level' mark.
Correct Answer is. filled to 'maximum level' mark.
Explanation. Leaflet 1-4 1.2 (b).

Question Number. 6. When weighing an aircraft by the weighbridge method, the aircraft is.
Option A. only levelled laterally.
Option B. jacked and levelled.
Option C. resting on the wheels.
Correct Answer is. resting on the wheels.
Explanation. Leaflet 1-4 4.2.

17. Aircraft Handling and Storage.

Question Number. 1. When mooring an aircraft what type of rope should be used?.
Option A. Nylon.
Option B. Fibre, tied tight due to stretch when wet.
Option C. Fibre, with some slack due to shrinkage when wet.
Correct Answer is. Nylon.
Explanation. Leaflet 10-1 4.3.1. Although fibre (manila) rope can be used (with some slack) the A&P Mechanic General Handbook says Nylon is preferred (Pg.510). Also, fibre rope does not shrink when wet, it shrinks when it dries.

Question Number. 2. Removal of ice by the use of deicing fluid on the aircraft, before flight.
Option A.must be 1 hour before flight to enable fluid to be cleaned from aircraft.
Option B. will provide sufficient prevention of ice formation until take off.
Option C. may remove ice for a period of time depending on the airfield conditions.
Correct Answer is. may remove ice for a period of time depending on the airfield conditions.
Explanation. AL/11-3 3.1.4.

Question Number. 3. When deicing an aircraft with pressure deicing fluid, the sensors on the outside of the aircraft should.
Option A. have their heating switched on.
Option B. be fitted with blanks or bungs.
Option C. not be blanked.
Correct Answer is. be fitted with blanks or bungs.
Explanation. AL/11-3 5.3.1.

Question Number. 4. When Ground Power is connected to aircraft, the generators are.
Option A. paralleled to supply.
Option B. paralleled to supply for ground starting only.
Option C. never paralleled.
Correct Answer is. never paralleled.
Explanation. NIL.

Question Number. 5. If ice and snow is found on the wings of an aircraft. Before flight the.
Option A. snow should be removed but ice can remain because it has no appreciable affect on the airflow.
Option B. all snow and ice must be removed.
Option C. ice should be removed but snow can remain because the airflow will remove it.
Correct Answer is. all snow and ice must be removed.
Explanation. GOL/1-1 7.9.2. AL/11-3 3.1.

Question Number. 6. There is ice and snow on a helicopter blade. You.
Option A. wipe off excess snow and leave ice.
Option B. leave a layer of ice.

Option C. remove all traces of ice and snow.
Correct Answer is. remove all traces of ice and snow.
Explanation. AL/11-3 2.2.

Question Number. 7. Why is the last part of towing an aircraft, done in a straight line?.
Option A. To relieve side pressure from the main wheels.
Option B. To relieve hydraulic pressure from the steering mechanism.
Option C. To allow nose wheel chocks to be placed at 90 degrees to the aircraft.
Correct Answer is. To relieve side pressure from the main wheels.
Explanation. NIL.

Question Number. 8. Aluminum clad alloy sheet should not be polished with mechanical buffing wheels as this.
Option A. will cause large static charges to build up.
Option B. may remove the aluminum coating.
Option C. may remove the alloy coating.
Correct Answer is. may remove the aluminum coating.
Explanation. NIL.

Question Number. 9. An aircraft should be cleared of snow.
Option A. using air blast.
Option B. using cold fluid.
Option C. using hot fluid.
Correct Answer is. using air blast.
Explanation. CAIP S AL/11-3 Para 5.

Question Number. 10. When refueling an aircraft from a tanker, why are the aircraft and tanker bonded together?.
Option A. To discharge static electricity from the aircraft to the tanker.
Option B. To maintain the aircraft and tanker at the same electrical potential.
Option C. To enable the aircraft re-fuel pumps to be operated from the tanker electrical supply.
Correct Answer is. To maintain the aircraft and tanker at the same electrical potential.
Explanation. Pallett - Aircraft Electrical Systems Pg.95.

Question Number. 11. When turning and towing an aircraft, why should sharp radiuses be avoided?.
Option A. Power steering leaks could occur.

Option B. Scrubbing of main-wheel tyres could occur.
Option C. Scrubbing of nose-wheel tyres could occur.
Correct Answer is. Scrubbing of main-wheel tyres could occur.
Explanation. Leaflet 10-1 3.2.4.

Question Number. 12. When an aircraft is pulled out of soft ground, the equipment should be attached to.
Option A. the tail cone.
Option B. the main gear.
Option C. the nose gear.
Correct Answer is. the main gear.
Explanation. CAIP S GOL/ 1-1 Para 3-1-6.

Question Number. 13. When a helicopter lands, how does the pilot signal to ground staff when it is safe to approach the aircraft?.
Option A. Turn the anti collision lights off.
Option B. Flash the landing lights.
Option C. Flash the Nav lights.
Correct Answer is. Turn the anti collision lights off.
Explanation. ANO Section 2 Rule 9.

Question Number. 14. When the park brake has been applied on an aircraft which has a pressurized hydraulic system and is reading maximum system pressure, the brake gauges to the left and right main wheels will read.
Option A. no indication.
Option B. full system pressure.
Option C. full scale deflection.
Correct Answer is. full system pressure.
Explanation. NIL.

Question Number. 15. De-icing fluid Type 1 is used.
Option A. for short holdover times.
Option B. where the ambient temperature is below -10degrees Centigrade.
Option C. where holdover times are long.
Correct Answer is. for short holdover times.
Explanation. AL/11-3 2.6. Jeppesen A&P Airframe Technician Textbook Page 13-14.

Question Number. 16. When picketing a helicopter you.
Option A. tie down one blade.

Option B. fit sleeves to the blades to protect them if they strike the ground.
Option C. fit sleeves and tie off all blades.
Correct Answer is. fit sleeves and tie off all blades.
Explanation. Leaflet 10-1 4.4.1.

Question Number. 17. Which is bad practice for removing the ice and snow in the cold weather?.
Option A. Dry snow by hot air.
Option B. Deep ice by de-icing fluid.
Option C. Use brush for deep wet snow.
Correct Answer is. Dry snow by hot air.
Explanation. AL/11-3 5.0.

18a. Disassembly, Inspection, repair and Assembly Techniques.

Question Number. 1. Taper pins resist what loads.
Option A. compression.
Option B. shear.
Option C. tension.
Correct Answer is. shear.
Explanation. A&P Technician General Textbook 8-29.

Question Number. 2. What test do you do on a bonded join?.
Option A. Shear.
Option B. Peel.
Option C. Tension.
Correct Answer is. Peel.
Explanation. NIL.

Question Number. 3. What would you use to check the run-out on a control rod?.
Option A. Micrometer + ball bearing.
Option B. DTI + V blocks.
Option C. 3 leg trammel + feeler gauge.
Correct Answer is. DTI + V blocks.
Explanation. NIL.

Question Number. 4. Taper pins are used in which of the following applications?.
Option A. To take compression loads.

Option B. To take shear loads.
Option C. To take compression and shear loads.
Correct Answer is. To take shear loads.
Explanation. Jeppesen A&P Airframe Textbook 1-27.

Question Number. 5. When using a D.T.I. to check the run-out of a shaft, readings of -15 to +25 would indicate a run-out of.
Option A. 0.025 inches.
Option B. 0.020 inches.
Option C. 0.040 inches.
Correct Answer is. 0.020 inches.
Explanation. CAIP S EL/3-3 Para. 3.2.

Question Number. 6. A dent is measured in a tubular push-pull rod by.
Option A. passing a ball down its bore.
Option B. callipers and feeler gauges.
Option C. a steel ball and micrometer.
Correct Answer is. a steel ball and micrometer.
Explanation. NIL.

Question Number. 7. What is used on Magnesium to re-protect it?.
Option A. Selenious Acid.
Option B. Deoxidine.
Option C. Chromic Acid.
Correct Answer is. Selenious Acid.
Explanation. NIL.
Question Number. 8. In the procedure to be followed after spillage of battery acid, neutralizing is carried out.
Option A. by washing with distilled water.
Option B. by applying a coating of Vaseline.
Option C. with a dilute solution of sodium bicarbonate.
Correct Answer is. with a dilute solution of sodium bicarbonate.
Explanation. CAAIP S Leaflet 9-2 5.4.1.

Question Number. 9. After carrying out an identification test of aluminum alloy with caustic soda, the caustic soda should be neutralized with.
Option A. Chromic anhydride solution.
Option B. Copper sulphate solution.
Option C. Phosphoric acid.
Correct Answer is. Chromic anhydride solution.

Explanation. BL/4-2 Para 2-4-5 'Note'.

Question Number. 10. To neutralize spilled battery acid on aluminum alloy, use.
Option A. sulphuric acid.
Option B. bicarbonate of soda.
Option C. caustic soda.
Correct Answer is. bicarbonate of soda.
Explanation. BL/4-1 4.1.3.

Question Number. 11. Hydrogen embrittlement of high tensile steel is caused if it is treated with.
Option A. Zinc Chromate.
Option B. Nitric acid.
Option C. Phosphoric acid.
Correct Answer is. Phosphoric acid.
Explanation. BL/4-2 3.2.2 (iii) BL/7-4 5.2.

Question Number. 12. Dents in a tubular push-pull rod are not allowed.
Option A. anywhere on the rod.
Option B. in the middle third of the rod.
Option C. in the end thirds of the rod.
Correct Answer is. in the middle third of the rod.
Explanation. NIL.

Question Number. 13. When checking a diode forward bias function, the positive lead of the ohmmeter should be placed on the.
Option A. cathode and the negative lead to the anode.
Option B. anode and the negative lead to the cathode.
Option C. cathode and the negative lead the earth.
Correct Answer is. anode and the negative lead to the cathode.
Explanation. Positive to the anode.

Question Number. 14. The bonding resistance of primary structure must not exceed.
Option A. 0.05 ohms.
Option B. 0.005 ohms.
Option C. 0.5 ohms.
Correct Answer is. 0.05 ohms.
Explanation. Leaflet 9-1 3.8 table 1.

Question Number. 15. What is the maximum resistance between the main earth system and a metal plate on which the earthing device (tyre) is resting?.
Option A. 100 megohms.
Option B. 1 megohm.
Option C. 10 megohms.
Correct Answer is. 10 megohms.
Explanation. EEL/1-6 Para 3.10.8 & Leaflet 9-1 3.10.8.

Question Number. 16. The three electrical checks carried out on aircraft are (1) continuity (2) bonding (3) insulation. What is the order in which they are executed?.
Option A. 2-3-1.
Option B. 1-2-3.
Option C. 2-1-3.
Correct Answer is. 2-1-3.
Explanation. Bonding - Continuity, Insulation, Function.

Question Number. 17. When an earth-return terminal assembly has to be replaced which of the following checks must be carried out?.
Option A. Bonding and continuity tests.
Option B. Bonding and millivolt drop tests.
Option C. Bonding and insulation resistance tests.
Correct Answer is. Bonding and millivolt drop tests.
Explanation. EEL/1-6 Para 3.7.2 & Leaflet 9-1 3.7.2.

Question Number. 18. When carrying out millivolt drop checks on a circuit, what is an approximate guide for a correct reading?.
Option A. 10 millivolts for every 15 amps flowing.
Option B. 10 millivolts for every 5 amps flowing.
Option C. 5 millivolts for every 10 amps flowing.
Correct Answer is. 5 millivolts for every 10 amps flowing.
Explanation. Leaflet 9-1 4.3 (b). EEL/1-6.

Question Number. 19. Effective continuity is not possible unless which of the following conditions exists?.
Option A. All circuit earths are disconnected.
Option B. The portion of the circuit under test must constitute a simple series circuit with no parallel paths.
Option C. All manually operated switches must be off.

Correct Answer is. The portion of the circuit under test must constitute a simple series circuit with no parallel paths.
Explanation. Leaflet 9-1 4.2.3. EEL / 1-6 Para 4-2-3.

Question Number. 20. Why is a low voltage supply used for continuity testing?.
Option A. To prevent fuses 'blowing' and lamps burning out.
Option B. To avoid damage to the wiring.
Option C. To avoid breaking down a high resistance film that might exist between contacting surfaces.
Correct Answer is. To avoid breaking down a high resistance film that might exist between contacting surfaces.
Explanation. Leaflet 9-1 4.2. A problem of poor continuity could be caused by oxidation at connectors. Using too high a voltage in a continuity test might 'overlook' the problem and give a false good reading.

Question Number. 21. When replacing a bonding connection and the original conductor cannot be matched exactly, which of the following replacements would you use?.
Option A. One manufactured from the same type of material, but of greater cross sectional area should be selected.
Option B. One manufactured from any piece of Nyvin cable having the correct current capacity may be used.
Option C. One manufactured from any conducting material of the same cross sectional area be used.
Correct Answer is. One manufactured from the same type of material, but of greater cross sectional area should be selected.
Explanation. Leaflet 9-1 3.5.2.

Question Number. 22. What is a typical minimum insulation resistance value for an aircraft undercarriage bay?.
Option A. 10 megohms.
Option B. 5 megohms.
Option C. 2 megohms.
Correct Answer is. 2 megohms.
Explanation. EEL/1-6 Para 4-5-4 (a) & Leaflet 9-1 4.5.4 (a).

Question Number. 23. The recommended insulation resistance of a DC motor is.
Option A. 2 megohms.
Option B. 0.5 megohms.
Option C. 5 megohms.

Correct Answer is. 0.5 megohms.
Explanation. Leaflet 9-1 Para.4.5.4 (Rotating machinery).

Question Number. 24. Bonding value for secondary structure is a maximum of.
Option A. 0.05 ohms.
Option B. 1 ohm.
Option C. 0.5 ohms.
Correct Answer is. 1 ohm.
Explanation. Leaflet 9-1 para.3.8. EEL 1-6 3.8.

Question Number. 25. Wrinkling of an aircraft skin will.
Option A. cause rivets to pull.
Option B. weaken the skin.
Option C. increase drag on the aircraft.
Correct Answer is. cause rivets to pull.
Explanation. All three are possibly correct, but c is the most probable.

Question Number. 26. You have removed a bolt from a critical bolted joint for inspection and rectification.
What action should you take prior to inspection?.
Option A. Before any inspection is carried out, the nut/bolt and hole must be cleaned with a solvent such as trichloroethylene.
Option B. Clean the bolt shank and thread and re-grease and replace bolt and check for side-play.
Option C. A preliminary inspection should be made before the hole is cleaned.
Correct Answer is. A preliminary inspection should be made before the hole is cleaned.
Explanation. CAIP AL/7-5 5.4.

Question Number. 27. On inspection of a critical bolted joint you witness black or grey dust or paste. What type of corrosion has taken place and what type of material is involved?.
Option A. Exfoliation corrosion in magnesium alloys.
Option B. Galvanic corrosion in magnesium alloys.
Option C. Fretting corrosion in aluminum alloys.
Correct Answer is. Fretting corrosion in aluminum alloys.
Explanation. CAIP BL/4-1 3.1.5.

Question Number. 28. What is indicated by the wrinkling of the underside of an aircraft skin?.

Option A. Hogging.
Option B. Fretting.
Option C. Sagging.
Correct Answer is. Hogging.
Explanation. Hogging produces wrinkling on the underside of the wing. Sagging produces wrinkling on the upper side of the wing.

Question Number. 29. What is used to re-protect magnesium?.
Option A. Selenious acid.
Option B. Deoxidine.
Option C. Chromic acid.
Correct Answer is. Selenious acid.
Explanation. CAIP S BL/7-5 6.3.1.

Question Number. 30. What is used on magnesium to remove corrosion?.
Option A. Strontium chromate.
Option B. Chromic acid / sulphuric acid solution.
Option C. Selenious acid.
Correct Answer is. Chromic acid / sulphuric acid solution.
Explanation. CAIP S BL/4-2 2.4.4. BL/7-5 9.3.5 (i).

Question Number. 31. Galvanic corrosion refers to a type of.
Option A. corrosion between two pieces of material.
Option B. plating process.
Option C. surface corrosion.
Correct Answer is. corrosion between two pieces of material.
Explanation. AC43 6-20.

Question Number. 32. Chromating used on magnesium alloys produces.
Option A. chromium surface electrochemically.
Option B. a chromate film surface.
Option C. metal chromates on the electrochemically.
Correct Answer is. a chromate film surface.
Explanation. CAIP S BL/7-5 Para.4.

Question Number. 33. Chromating used on magnesium alloys.
Option A. uses chromium and converts the surface electrochemically.
Option B. uses chromates and converts the surface chemically.
Option C. uses chromium, which is deposited on the surface.
Correct Answer is. uses chromates and converts the surface chemically.

Explanation. BL/7-3 11. Chromate treatment sometimes called 'chromate conversion'.

Question Number. 34. When carrying out a bonding test in the presence of an anodic coating, what should you do?.
Option A. Take account of the resistance of the coating.
Option B. Disregard the resistance of the coating.
Option C. Penetrate the coating so a good electrical contact is made.
Correct Answer is. Penetrate the coating so a good electrical contact is made.
Explanation. CAAIP S Leaflet 9-1, 3.10.6 and note from 3.6.6.

Question Number. 35. Maximum value of resistance between all isolated parts which may be subjected to appreciable electrostatic charging and the main earth.
Option A. 0.5 Megohm or 100 kilohm per sq.ft. of surface area whichever is less.
Option B. 1 ohm.
Option C. 0.05 ohm.
Correct Answer is. 0.5 Megohm or 100 kilohm per sq.ft. of surface area whichever is less.
Explanation. Leaflet 9-1 3.8 Table 1 or EEL/1-6 3.5.

Question Number. 36. Removal of corrosion from aluminum clad alloy is best done.
Option A. mechanically by buffing.
Option B. chemically by trichloroethylene.
Option C. chemically by sulphuric acid solution.
Correct Answer is. chemically by sulphuric acid solution.
Explanation. NIL.

Question Number. 37. Control methods for galvanic corrosion include.
Option A. reducing cyclic stressing and increasing cross sectional area.
Option B. joining similar metals and using jointing compounds.
Option C. ensuring correct heat treatments and correct alloying.
Correct Answer is. joining similar metals and using jointing compounds.
Explanation. NIL.

Question Number. 38. The treatment for stress corrosion is.
Option A. not the same as fatigue corrosion.
Option B. the same as for surface corrosion or surface cracks in sheet metal.
Option C. always the replacement of the part.
Correct Answer is. always the replacement of the part.

Explanation. NIL.

Question Number. 39. Very light corrosion on aluminum alloy can be removed by.
Option A. using a solvent.
Option B. rubbing with wire wool.
Option C. using Alocrom 1200.
Correct Answer is. using a solvent.
Explanation. NIL.

Question Number. 40. To remove corrosion on Fe metals use.
Option A. selenious acid rust remover.
Option B. sulphuric acid rust remover.
Option C. phosphoric acid rust remover.
Correct Answer is. phosphoric acid rust remover.
Explanation. NIL.

Question Number. 41. The usual manufacturer's anti corrosive process to be applied to Fe aircraft parts is.
Option A. cadmium plating.
Option B. anodising.
Option C. metal spraying.
Correct Answer is. cadmium plating.
Explanation. NIL.

Question Number. 42. An intervention defect is one where.
Option A. the engineer has the discretion on whether to intervene.
Option B. there is a requirement for the maintenance engineer to intervene.
Option C. the defect occurred because of some previous maintenance action.
Correct Answer is. the defect occurred because of some previous maintenance action.
Explanation. NIL.

Question Number. 43. Vapour phase inhibitor should be used.
Option A. when re-protecting after corrosion.
Option B. when degreasing a component.
Option C. when painting an aircraft.
Correct Answer is. when re-protecting after corrosion.
Explanation. NIL.

Question Number. 44. When carrying out insulation resistance checks.
Option A. the measurement is always infinity if the cable is installed correctly.
Option B. the measurement will also show cable continuity.
Option C. the measurement varies depending upon the ambient conditions of the aircraft under test.
Correct Answer is. the measurement varies depending upon the ambient conditions of the aircraft under test.
Explanation. EEL/1-6 4.5.3, Leaflet 9-1 4.5.3.

Question Number. 45. How is damage classified on an aircraft skin?.
Option A. Negligible, repairable, replacement.
Option B. Negligible, allowable, replacement.
Option C. Negligible, allowable, repairable.
Correct Answer is. Negligible, repairable, replacement.
Explanation. NIL.

Question Number. 46. When carrying out a millivolt drop test on a terminal, the maximum value should be.
Option A. 50mV/10A.
Option B. 10mV/10A.
Option C. 5mV/10A.
Correct Answer is. 5mV/10A.
Explanation. Leaflet 9-1 4.3 (b). EEL/1-6.

Question Number. 47. A jury strut is used.
Option A. as a reference when checking the C of G position.
Option B. as a datum when placing the aircraft in a rigging position.
Option C. to support the structure during repairs.
Correct Answer is. to support the structure during repairs.
Explanation. NIL.

Question Number. 48. Run out' on a control rod is measured by.
Option A. micrometer, surface plate and vee-blocks.
Option B. surface plate, vernier callipers and vee-blocks.
Option C. dial test indicator, surface plate and vee-blocks.
Correct Answer is. dial test indicator, surface plate and vee-blocks.
Explanation. NIL.

Question Number. 49. How do you check the resistance of a fire bottle cartridge?.

Option A. Use an insulation tester.
Option B. Use a multimeter.
Option C. Use a light and bulb.
Correct Answer is. Use a multimeter.
Explanation. NIL.

Question Number. 50. If after forming a crimp in an electrical condutor a high resistance is suspected, how would you carry out a check without disturbing the connection?.
Option A. Use a multimeter set to millivolts and carry out a millivolts drop test.
Option B. Carry out an insulation check.
Option C. Use a multimeter set to ohms to check the resistance.
Correct Answer is. Use a multimeter set to millivolts and carry out a millivolts drop test.
Explanation. NIL.

18b. Disassembly, Inspection, repair and Assembly Techniques.

Question Number. 1. Damaged chromate film should be repaired by using.
Option A. phosphoric acid 10% by weight in water.
Option B. selenious acid 10% by weight in water.
Option C. selenious acid 20% by weight in water.
Correct Answer is. selenious acid 10% by weight in water.
Explanation. BL/7-3 5.2.

Question Number. 2. Stop Drilling' is the process of.
Option A. drilling holes to stop a crack at the crack ends.
Option B. drilling holes in a metal prior to riveting.
Option C. drilling a rivet head to remove it from the metal.
Correct Answer is. drilling holes to stop a crack at the crack ends.
Explanation. NIL.

Question Number. 3. When inserting a helicoil insert, which way does the tang face?.
Option A. Away from the hole.
Option B. Towards the hole.
Option C. Towards the mandrel.
Correct Answer is. Towards the hole.
Explanation. Jeppesen A&P Technician General Textbook Page 8-31.

Question Number. 4. On a patch repair you should use.
Option A. material one gauge thicker than the original structure.
Option B. the same rivet spacing as the original structure.
Option C. only aluminum alloy rivets.
Correct Answer is. the same rivet spacing as the original structure.
Explanation. AC43 Page 4-32.

Question Number. 5. What tap do you use when fitting a Helicoil?.
Option A. The same as the original thread size.
Option B. The next size up from the original tap size.
Option C. The tap supplied with the Helicoil kit.
Correct Answer is. The tap supplied with the Helicoil kit.
Explanation. NIL.

Question Number. 6. When fitting a thread insert.
Option A. the insert should be tapped in using a hammer.
Option B. the hole should be expanded using a tap supplied by the insert manufacturer.
Option C. a thread the next size up from the original should be tapped.
Correct Answer is. the hole should be expanded using a tap supplied by the insert manufacturer.
Explanation. CAAIP S Leaflet 2-10 3.2.2.

Question Number. 7. A stud broken off below the surface is removed by.
Option A. using a stud box.
Option B. a stud remover tool fitted into a drilled hole.
Option C. cutting a slot in it and removing with a screwdriver.
Correct Answer is. a stud remover tool fitted into a drilled hole.
Explanation. A stud box could only be used if it is broken above the surface.

Question Number. 8. A thread insert is made from.
Option A. white metal.
Option B. aluminum alloy.
Option C. stainless steel.
Correct Answer is. stainless steel.
Explanation. NIL.

Question Number. 9. On a composite repair the vacuum should be.
Option A. above required level.

Option B. below required level.
Option C. at the required level.
Correct Answer is. at the required level.
Explanation. NIL.

Question Number. 10. If bridging strips or bonding cords are fractured, what action may be taken?.
Option A. The broken ends can be repaired with an “in-line” splice.
Option B. A new conductor should be fitted.
Option C. The broken ends can be soldered.
Correct Answer is. A new conductor should be fitted.
Explanation. Leaflet 9-1 3.6.3.

Question Number. 11. A UNF threaded wire thread insert may be identified.
Option A. by a black painted tang.
Option B. by a red painted tang.
Option C. by an unpainted tang.
Correct Answer is. by a black painted tang.
Explanation. BL/6-22 3.1.

18c. Disassembly, Inspection, repair and Assembly Techniques.

Question Number. 1. Transducers used in ultrasonic testing exhibit which of he following effects?.
Option A. Hyper-acoustic.
Option B. Ferromagnetic.
Option C. Piezoelectric.
Correct Answer is. Piezoelectric.
Explanation. CAAIP S leaflet 4-5 page 3 para 3.2.

Question Number. 2. The eddy current method of N.D.T. uses.
Option A. AC or DC.
Option B. Direct current.
Option C. Alternating current.
Correct Answer is. Alternating current.
Explanation. CAAIP S leaflet 4-5 page 1 para 2.1.

Question Number. 3. To measure the thickness of a paint finish, what type of NDT inspection is used?.
Option A. A woodpecker.

Option B. Ultrasonic.
Option C. Radiographic.
Correct Answer is. Ultrasonic.
Explanation. CAAIP S leaflet 4-5 para 1.4.

Question Number. 4. When carrying out a dye penetrant test, after the developer has been applied it should be inspected.
Option A. after 30 minutes.
Option B. as soon as the developer is dry and again after approximately 10 minutes.
Option C. after 1 hour.
Correct Answer is. as soon as the developer is dry and again after approximately 10 minutes.
Explanation. CAAIP S Leaflet 4-2 Paras 7-1 and 7-2.

Question Number. 5. During a colour contrast test the penetrant time should be.
Option A. longer for a small crack.
Option B. shorter for a small crack.
Option C. longer for a wide crack.
Correct Answer is. longer for a small crack.
Explanation. CAAIP S Leaflet 4-2 Para 4-1.

Question Number. 6. How should a dye penetrant field kit be stored?.
Option A. At a cold temperature in a darkened room.
Option B. In direct sunlight.
Option C. At room temperature away from direct sunlight.
Correct Answer is. At room temperature away from direct sunlight.
Explanation. CAAIP S Leaflet 4-2 Para 9-1.

Question Number. 7. When carrying out a colour contrast test on a pressure vessel.
Option A. the dye should be applied to the outside and the developer to the inside.
Option B. the dye should be applied to the inside and the developer to the outside.
Option C. both the dye and the developer should be applied to the outside.
Correct Answer is. the dye should be applied to the inside and the developer to the outside.
Explanation. CAAIP S Leaflet 4-2 Para 9-1.

Question Number. 8. When leak testing with a colour contrast field kit, the soak time for a component less than 1/8 in. (3mm) thick would be.
Option A. at least twice the normal soak time.
Option B. at least 3 times the normal soak time.
Option C. at least the normal soak time.
Correct Answer is. at least 3 times the normal soak time.
Explanation. CAAIP S Leaflet 4-2 Para 9-2.

Question Number. 9. When using a colour contrast dye penetrant kit, and a small crack is suspected in the material.
Option A. less developer should be used.
Option B. less inhibitor should be used.
Option C. a magnifying glass is recommended.
Correct Answer is. a magnifying glass is recommended.
Explanation. CAAIP\'s leaflet 4-2 pg 6 para 7.5.

Question Number. 10. What NDT method would you use to detect delamination?.
Option A. Colour contrast dye penetrant.
Option B. Ultrasound.
Option C. Eddy current.
Correct Answer is. Ultrasound.
Explanation. Leaflet 4-5 1.4.

Question Number. 11. Magnetic particle testing detects faults.
Option A. transverse.
Option B. longitudinally.
Option C. longitudinal and transverse.
Correct Answer is. transverse.
Explanation. CAAIP 4-7, 2.2 The flaw must be between 45 degrees and 90 degrees to the flux lines.

Question Number. 12. Dye penetrant in a cold climate.
Option A. takes longer to work.
Option B. is not affected.
Option C. works more quickly.
Correct Answer is. takes longer to work.
Explanation. CAAIP S Leaflet 4-2 Para 4-2.

Question Number. 13. If after spraying the developer, red blotches appear, the part.
Option A. has sub-surface defects.
Option B. was not cleaned properly.
Option C. is porous.
Correct Answer is. is porous.
Explanation. CAAIP S Leaflet 4-2 Para 7-3.

Question Number. 14. What is the purpose of the developer in a dye penetrant inspection?.
Option A. It acts a s a blotter to draw out the penetrant that has seeped into the crack.
Option B. It is drawn to the crack by electrostatic attraction.
Option C. It seeps into the crack and makes it show up.
Correct Answer is. It acts a s a blotter to draw out the penetrant that has seeped into the crack.
Explanation. CAAIP S Leaflet 4-2 Para.6.

Question Number. 15. The main advantage of dye penetrant inspection is.
Option A. the part to be inspected does not require cleaning.
Option B. the defect must be opened to the surface.
Option C. the penetrant solution works on any non-porous material.
Correct Answer is. the penetrant solution works on any non-porous material.
Explanation. NIL.

Question Number. 16. To detect a minute crack using dye penetrant inspection usually requires.
Option A. the surface to be highly polished.
Option B. a longer than normal penetrating time.
Option C. that the developer be applied to a flat surface.
Correct Answer is. a longer than normal penetrating time.
Explanation. CAAIP S Leaflet 4-2 Para 7-1.

Question Number. 17. When checking an item with the magnetic particle inspection method, circular and longitudinal magnetization should be used to.
Option A. evenly magnetize the entire part.
Option B. ensure uniform current flow.
Option C. reveal all possible defects.
Correct Answer is. reveal all possible defects.
Explanation. Leaflet 4-2 2 and leaflet 4-7, 4.5.

Question Number. 18. Which type crack can be detected by magnetic particle inspection using either circular or longitudinal magnetisation?.
Option A. 45°.
Option B. longitudinal.
Option C. transverse.
Correct Answer is. 45°.
Explanation. CAAIP S leaflet 4-7 para 2.2.

Question Number. 19. Surface cracks in aluminum castings and forgings may usually be detected by.
Option A. submerging the part in a solution of hydrochloric acid and rinsing with clear water.
Option B. gamma ray inspection.
Option C. the use of dye penetrants and suitable developers.
Correct Answer is. the use of dye penetrants and suitable developers.
Explanation. Leaflet 4-2 1.6.2.

Question Number. 20. Which of these metals is inspected using the magnetic particle inspection method?.
Option A. Magnesium alloys.
Option B. Aluminum alloys.
Option C. Iron alloys.
Correct Answer is. Iron alloys.
Explanation. Leaflet 4-7 1.1.

Question Number. 21. One way a part may be demagnetized after magnetic particle inspection is by.
Option A. slowly moving the part out of an AC magnetic field of sufficient strength.
Option B. slowly moving the part into an AC magnetic field of sufficient strength.
Option C. subjecting the part to high voltage, low amperage AC.
Correct Answer is. slowly moving the part out of an AC magnetic field of sufficient strength.
Explanation. Leaflet 4-7 4.9.2.

Question Number. 22. The testing medium that is generally used in magnetic particle inspection utilises a ferromagnetic material that has.

Option A. low permeability and high retentivity.
Option B. high permeability and low retentivity.
Option C. high permeability and high retentivity.
Correct Answer is. high permeability and low retentivity.
Explanation. NIL.

Question Number. 23. The 'Dwell Time' of a dye-penetrant NDT inspection is the.
Option A. time it takes for a defect to develop.
Option B. time the penetrant is allowed to stand.
Option C. amount of time the developer is allowed to act.
Correct Answer is. time the penetrant is allowed to stand.
Explanation. A&P General Textbook 12-3 Pg 447 Para 2.

Question Number. 24. What non-destructive testing method requires little or no part preparation, is used to detect surface or near-surface defects in most metals, and may also be used to separate metals or alloys and their heattreat conditions?.
Option A. Eddy current inspection.
Option B. Magnetic particle inspection.
Option C. Ultrasonic inspection.
Correct Answer is. Eddy current inspection.
Explanation. NIL.

Question Number. 25. Gamma Ray Testing of combustion chambers will show up.
Option A. grey on white background.
Option B. black on lighter background.
Option C. light grey on black background.
Correct Answer is. light grey on black background.
Explanation. NIL.

Question Number. 26. Which of these non-destructive testing methods is suitable for the inspection of most metals, plastics and ceramics for surface and subsurface defects?.
Option A. Eddy current inspection.
Option B. Magnetic particle inspection.
Option C. Ultrasonic inspection.
Correct Answer is. Ultrasonic inspection.
Explanation. NIL.

Question Number. 27. Ultrasonic flaw detectors use.
Option A. high frequency sound waves.
Option B. a magnetic field.
Option C. x-rays.
Correct Answer is. high frequency sound waves.
Explanation. NIL.

Question Number. 28. Defects are indicated in the dye penetrant crack detection test by.
Option A. red lines on a white background.
Option B. yellowish green marks.
Option C. green lines and dots.
Correct Answer is. red lines on a white background.
Explanation. NIL.

Question Number. 29. NDT using colour dye process at temperatures below 15°C will.
Option A. not be affected by the temperature.
Option B. retard the penetrant action of the dye and penetration time is extended.
Option C. mean choosing alternative NDT method.
Correct Answer is. retard the penetrant action of the dye and penetration time is extended.
Explanation. CAAIP S Leaflet 4-2 Para 4-2.

Question Number. 30. When using dye penetrant NDT on a tank, the dye penetrant should be applied.
Option A. on the outside with developer on the outside.
Option B. on the inside, with developer on the outside.
Option C. on the inside with the developer on the inside.
Correct Answer is. on the inside, with developer on the outside.
Explanation. CAAIP S Leaflet 4-2 Para 9-1.

Question Number. 31. In order for dye penetrant inspection to be effective, the material being checked must.
Option A. be non-magnetic.
Option B. be magnetic.
Option C. have surface cracks.
Correct Answer is. have surface cracks.
Explanation. A&P General Textbook 12-2 Pg 446 (B).

Question Number. 32. Which of the following metals can be inspected using the magnetic particle inspection method?.
Option A. Aluminum alloys.
Option B. Iron alloys.
Option C. Magnesium alloys.
Correct Answer is. Iron alloys.
Explanation. NIL.

Question Number. 33. After completion of electromagnetic crack detection, the test piece must be.
Option A. allowed to cool to room temperature as slowly as possible.
Option B. de-magnetised before returning to service.
Option C. allowed to lose any residual magnetism over as long a period possible.
Correct Answer is. de-magnetised before returning to service.
Explanation. NIL.

Question Number. 34. Which of the following N.D.T. techniques cannot be used on a component manufactured from austenitic stainless steel?.
Option A. Magnetic - particle.
Option B. Penetrant dye.
Option C. Hot oil and chalk.
Correct Answer is. Magnetic - particle.
Explanation. NIL.

Question Number. 35. Fluorescent penetrant processes for the detection of cracks or material defects are used with.
Option A. a tungsten light source.
Option B. an ultra-violet radiation source.
Option C. an infra-red light source.
Correct Answer is. an ultra-violet radiation source.
Explanation. CAAIP S Leaflet 4-3 Para 1-5.

Question Number. 36. What is an isotope the power source of?.
Option A. X-Rays.
Option B. Ultra Violet Rays.
Option C. Gamma Rays.
Correct Answer is. Gamma Rays.
Explanation. CAAIP\'s leaflet 4-6 para 2.

Question Number. 37. The fluid used in the 'Oil and Chalk' method of non-destructive testing is a mixture of.
Option A. lubricating oil and petrol.
Option B. lubricating oil and lard oil.
Option C. lubricating oil and paraffin.
Correct Answer is. lubricating oil and paraffin.
Explanation. CAAIP S Leaflet 4-1 Para 3-2.

Question Number. 38. Under magnetic particle inspection, a part will be identified as having a fatigue crack under which condition?.
Option A. The discontinuity pattern is straight.
Option B. The discontinuity is found in a highly stressed area of the part.
Option C. The discontinuity is found in a non-stressed area of the part.
Correct Answer is. The discontinuity is found in a highly stressed area of the part.
Explanation. NIL.

Question Number. 39. When inspecting a component which is being subjected to the hot fluid chalk process, the examination for defects should be carried out.
Option A. whilst the item is still quite hot.
Option B. immediately on removal of the item from the chalk cabinet.
Option C. when the item is quite cool.
Correct Answer is. when the item is quite cool.
Explanation. CAAIP S Leaflet 4-1 3.

Question Number. 40. Circular magnetization of a part can be used to detect defects.
Option A. perpendicular to the concentric circles of magnetisation.
Option B. parallel to the long axis of the part.
Option C. perpendicular to the long axis of the part.
Correct Answer is. perpendicular to the concentric circles of magnetisation.
Explanation. CAIP BL/8-5 para 2.1.

Question Number. 41. An indication of porosity when using a penetrant dye crack detection method is.
Option A. areas where dye is not showing.
Option B. an area of scattered dots of dye.
Option C. closely spaced dots of dye formed in a line.
Correct Answer is. an area of scattered dots of dye.
Explanation. CAAIP S Leaflet 4-2 7.3.

Question Number. 42. In a test for adequate demagnetization of a component after a magnetic particle test, the test compass should not deflect.
Option A. more than 1° when standing due east of the component.
Option B. more than 1° when standing due south of the component.
Option C. more than 1° when standing north-east of the component.
Correct Answer is. more than 1° when standing due east of the component.
Explanation. CAAIP S Leaflet 4-7 4.10.2.

Question Number. 43. If on application of developer it all turns to a pinkish hue, what has happened?.
Option A. Thin porosity.
Option B. The hue has pinked.
Option C. Incorrect cleaning.
Correct Answer is. Incorrect cleaning.
Explanation. CAAIP S Leaflet 4-2 Para 6-6.

Question Number. 44. If dye penetrant inspection indications are not sharp and clear, the most probable cause is that the part.
Option A. is not damaged.
Option B. was not correctly degaussed before the developer was applied.
Option C. was not thoroughly cleaned before developer was applied.
Correct Answer is. was not thoroughly cleaned before developer was applied.
Explanation. AC43 5.60 G.

Question Number. 45. The pattern for an inclusion is a magnetic particle build-up forming.
Option A. a single line.
Option B. parallel lines.
Option C. a fern-like pattern.
Correct Answer is. parallel lines.
Explanation. AandP Mechanics General Handbook Pg 474 para 2.

Question Number. 46. When carrying out a penetrant dye crack test, before the dye is applied the surface being tested should be.
Option A. etch primed.
Option B. thoroughly degreased.
Option C. painted with developer fluid.
Correct Answer is. thoroughly degreased.
Explanation. Leaflet 4-2 Para 2-4.

Question Number. 47. When carrying out a dye penetrant inspection, what time should elapse after applying the developer before inspecting the component?.
Option A. Initial inspection after 30 seconds followed by a 2nd inspection after 10 minutes.
Option B. After 15 minutes.
Option C. After 10 minutes.
Correct Answer is. Initial inspection after 30 seconds followed by a 2nd inspection after 10 minutes.
Explanation. Leaflet 4-2 Para 7-2.

Question Number. 48. When should the developer be applied to the component?.
Option A. After excess penetrant has been removed and the area completely dried.
Option B. Before applying penetrant.
Option C. Before the penetrant dries.
Correct Answer is. After excess penetrant has been removed and the area completely dried.
Explanation. Leaflet 4-2 Para 1.5, 5.4.1.

Question Number. 49. To check the structure of a wing.
Option A. ultrasound NDT is used.
Option B. high voltage X-rays are used.
Option C. low voltage X-rays are used.
Correct Answer is. high voltage X-rays are used.
Explanation. BL/8-4 2.1.6.

Question Number. 50. Which of the following NDT methods requires that the orientation (or direction) of the defect be known before the test can commence?.
Option A. Ultrasonic and Dye Penetrant.
Option B. Magnetic Particle and Ultrasonic.
Option C. X-Ray and Magnetic Particle.
Correct Answer is. Magnetic Particle and Ultrasonic.
Explanation. Leaflet 4-5 1.2.

Question Number. 51. Which of the following defects could not be detected by Eddy Current NDT inspection?.
Option A. A crack in a glass fibre reinforced plastic cowl.
Option B. A crack in a magnesium alloy wheel casting.

Option C. Heat damage of a Haynes Alloy turbine blade.
Correct Answer is. A crack in a glass fibre reinforced plastic cowl.
Explanation. BL/8-8 2.

Question Number. 52. Which of the following methods could be used to detect the presence of tiny drops of Mercury in a large area of aircraft hull structure after an accident with a mercury thermometer?.
Option A. X-Ray.
Option B. Magnetic Particle.
Option C. Ultrasonic.
Correct Answer is. X-Ray.
Explanation. NIL.

Question Number. 53. Which of the following NDT methods requires that the surface of the test piece is cleaned down to bare metal?.
Option A. Eddy Current.
Option B. Magnetic Particle.
Option C. Dye-penetrant.
Correct Answer is. Dye-penetrant.
Explanation. Leaflet 4-2 2.1.

Question Number. 54. When using the colour contrast NDT.
Option A. the surface paint should be removed.
Option B. the surface should be lightly scuffed.
Option C. the surface should be bead blasted.
Correct Answer is. the surface paint should be removed.
Explanation. Leaflet 4-2 2.1.

Question Number. 55. When using dye penetrant field kit, removal of excess penetrant is done by applying the solvent by.
Option A. spraying once direct on the part.
Option B. spraying twice direct on the part.
Option C. using a lint free cloth.
Correct Answer is. using a lint free cloth.
Explanation. Leaflet 4-2 5.3.

Question Number. 56. Liquid penetrant tests can be used to detect.
Option A. internal porosity in castings.
Option B. corrosion wall thinning in pipes and tubes.
Option C. fatigue cracks in magnesium alloy parts.

Correct Answer is. fatigue cracks in magnesium alloy parts.
Explanation. CAAIP Leaflet 4-2 2.3.

Question Number. 57. Water-washable liquid penetrants differ from Post-emulsification penetrants in that they.
Option A. do not need an emulsifier added.
Option B. need not be removed from surfaces prior to development.
Option C. can only be used on aluminum alloys.
Correct Answer is. do not need an emulsifier added.
Explanation. BL/8-2 1.3.

Question Number. 58. When using a post-emulsification penetrant, the timing is most critical during.
Option A. penetrant removal.
Option B. emulsification.
Option C. penetration.
Correct Answer is. emulsification.
Explanation. BL/8-7 para 4.2.

Question Number. 59. A liquid penetrant test cannot.
Option A. be used on porous materials.
Option B. locate sub-surface discontinuities.
Option C. be used on non-metallic surfaces.
Correct Answer is. locate sub-surface discontinuities.
Explanation. Leaflet 4-2, A&P Technician General Textbook 12-4 Pg 448 Para 3 (B).

Question Number. 60. Hot air drying of articles during liquid penetrant testing is carried out at a temperature of.
Option A. 75°F.
Option B. 250°F.
Option C. 130°F.
Correct Answer is. 130°F.
Explanation. Leaflet 4-2 5.4.3. There is no reference in old CAIP S.

Question Number. 61. To check the structure of a wing, which NDT is used?.
Option A. Radiographic.
Option B. Dye penetrant.
Option C. Magnetic Flaw.
Correct Answer is. Radiographic.

Explanation. NIL.

Question Number. 62. Magnetic Flux detection will show defects which are.
Option A. transverse to the flux direction only.
Option B. longitudinal to the flux direction only.
Option C. longitudinal and transverse to the flux direction.
Correct Answer is. transverse to the flux direction only.
Explanation. Leaflet 4-7 2.2.

Question Number. 63. A hairline crack would show up on a dye penetrant inspection as.
Option A. a continuous line of small dots.
Option B. a thin broken line or chain.
Option C. a group of dots spread over a wide area.
Correct Answer is. a continuous line of small dots.
Explanation. Leaflet 4-2 7.4.

Question Number. 64. When carrying out an ultrasonic inspection, what is the gel used for?.
Option A. To create a good sonic coupling between the the probe and the test piece.
Option B. To reduce the friction between the probe and the test piece.
Option C. To prevent the test piece from becoming scratched by the probe.
Correct Answer is. To create a good sonic coupling between the the probe and the test piece.
Explanation. Leaflet 4-5 3.4.

Question Number. 65. Fluorescent dye penetrant is suited for what materials?.
Option A. Non magnetic non-ferrous materials.
Option B. Ferrous magnetic materials.
Option C. Plastics and non magnetic materials.
Correct Answer is. Non magnetic non-ferrous materials.
Explanation. Leaflet 4-3 1.2. CAIP S BL/8-7.

Question Number. 66. In film radiography, image quality indicators (IQI) are usually placed.
Option A. between the intensifying screen and the film.
Option B. on the film side of the object.
Option C. on the source side of the test object.
Correct Answer is. on the source side of the test object.

Explanation. BL/8-4 3.3.1.

Question Number. 67. Which type crack will probably cause the most build-up in the magnetic particle indicating medium?.
Option A. Grinding.
Option B. Shrink.
Option C. Fatigue.
Correct Answer is. Fatigue.
Explanation. A&P Mechanics General Handbook Pg.473.

Question Number. 68. When using dye penetrant NDT on a tank, the penetrant should be applied.
Option A. on the inside, with developer on the inside.
Option B. on the outside, with developer on the outside.
Option C. on the inside, with developer on the outside.
Correct Answer is. on the inside, with developer on the outside.
Explanation. BL/8-2 9.

Question Number. 69. To detect a fault with magnetic particle flaw detection, the test requires.
Option A. two passes in any direction.
Option B. one pass in any direction.
Option C. two passes at 90 degrees to each other.
Correct Answer is. two passes at 90 degrees to each other.
Explanation. BL/8-5 2.1.

Question Number. 70. The substance used in ultrasound inspection is.
Option A. a couplant to allow sound waves to travel.
Option B. a cleaning agent to keep the components clean.
Option C. a developer.
Correct Answer is. a couplant to allow sound waves to travel.
Explanation. Leaflet 4-5 4.5.2 BL/8-3 3.3.

Question Number. 71. Dye penetrant defects are marked using.
Option A. crayon, unless used in a highly stresses area.
Option B. pencil.
Option C. chalk.
Correct Answer is. crayon, unless used in a highly stresses area.
Explanation. Leaflet 4-3 5.4BL/8-2 7.5.

Question Number. 72. A pressure vessel of thickness 1/16 inch to 1/8 inch is being tested with dye penetrant.
The penetrant should be left for.
Option A. 3 times longer than normal.
Option B. less than normal.
Option C. the same length of time as normal.
Correct Answer is. 3 times longer than normal.
Explanation. Leaflet 4-2 9.2.

Question Number. 73. Which of the following NDT techniques cannot be used on a component manufactured from austenitic stainless steel?.
Option A. Penetrant dye.
Option B. Magnetic particle.
Option C. Hot oil and chalk.
Correct Answer is. Magnetic particle.
Explanation. Austenitic Stainless Steel is non-magnetic.

Question Number. 74. The dye penetrant field test kit consists of cans of.
Option A. penetrant, cleaner, developer and a brush.
Option B. spray penetrant, spray cleaner and spray developer.
Option C. penetrant, cleaner and developer.
Correct Answer is. spray penetrant, spray cleaner and spray developer.
Explanation. NIL.

Question Number. 75. The liquid applied to a component being checked by magnetic particle inspection is for.
Option A. acting as a transmission medium for the test.
Option B. to prevent corrosion occurring from contact with the probe.
Option C. to prevent scratching of the surface by the probe.
Correct Answer is. acting as a transmission medium for the test.
Explanation. NIL.

Question Number. 76. Which is the preferred method of test for aluminum alloy alloy?.
Option A. Electroflux.
Option B. Magnaflux.
Option C. Ultrasonic.
Correct Answer is. Ultrasonic.
Explanation. NIL.

Question Number. 77. A composite flap panel has corrosion. What NDT method will you use to detect?.
Option A. Low voltage x-ray.
Option B. Coin tap test.
Option C. High voltage x-ray.
Correct Answer is. Low voltage x-ray.
Explanation. Leaflet 6-9 Appendix 1 Paragraph 4.

Question Number. 78. The eddy current method of flaw detection can detect.
Option A. sub surface flaws only.
Option B. surface flaws and those just beneath the surface.
Option C. surface flaws only.
Correct Answer is. surface flaws and those just beneath the surface.
Explanation. Leaflet 4-8.

Question Number. 79. With dye penetrant how is the developer applied?.
Option A. Using a tank.
Option B. As an even layer of chalk applied over the area.
Option C. At a distance of 10 to 12 inches with several passes.
Correct Answer is. At a distance of 10 to 12 inches with several passes.
Explanation. Leaflet 4-2 6.

Question Number. 80. When using the dye penetrant method crack detection, the indications on a short, deep crack are.
Option A. single dots.
Option B. circles.
Option C. long chain.
Correct Answer is. single dots.
Explanation. Leaflet 4-2 7.

Question Number. 81. A deep internal crack in a structural steel member is detected by.
Option A. x-ray or ultrasonic process.
Option B. fluorescent penetrant method.
Option C. magnetic flaw method.
Correct Answer is. x-ray or ultrasonic process.
Explanation. Leaflet 4-6.

Question Number. 82. The ultrasonic method of crack detection can be used on.

Option A. surface and subsurface defects on all metals.
Option B. surface and subsurface defects on ferrous metals only.
Option C. subsurface defects on all metals.
Correct Answer is. surface and subsurface defects on all metals.
Explanation. leaflet 4-5 1.1 and 4.2.2.

Question Number. 83. Porosity in cast materials.
Option A. only occurs on the surface.
Option B. is only detectable on the surface.
Option C. is detectable as a surface or sub surface defect.
Correct Answer is. is detectable as a surface or sub surface defect.
Explanation. NIL.

Question Number. 84. When using the fluorescent ink flaw detection method, the component should be inspected using an.
Option A. ultraviolet lamp.
Option B. infrared lamp.
Option C. ordinary lamp and special glasses.
Correct Answer is. ultraviolet lamp.
Explanation. Leaflet 4-3 1.5.

Question Number. 85. When using the dye penetrant method of crack detection, it should not normally be used at temperatures.
Option A. above 20°C.
Option B. below 0°C.
Option C. above 15°C.
Correct Answer is. below 0°C.
Explanation. Leaflet 4-2 4.2.

Question Number. 86. When using the dye penetrant method, the part should be kept wet with the penetrant for.
Option A. 5 minutes.
Option B. 15 minutes.
Option C. up to one hour.
Correct Answer is. up to one hour.
Explanation. Leaflet 4-2 4.1.

Question Number. 87. What NDT would you carry out on aluminum alloy?.
Option A. Electroflux.
Option B. Magnetic flaw.

Option C. Ultrasonic.
Correct Answer is. Ultrasonic.
Explanation. NIL.

18d. Disassembly, Inspection, repair and Assembly Techniques.

Question Number. 1. Where would you disconnect a chain?.
Option A. At a bolted joint.
Option B. At an riveted joint.
Option C. At a spring clip joint.
Correct Answer is. At a bolted joint.
Explanation. CAIP S EEL/ 3-1 Para 8-3-1 (b) & CAAIP S Leaflet 5-4 3.4.

Question Number. 2. How many times can a locking plate be used?.
Option A. 3 times, then discarded.
Option B. indefinitely providing it is a good fit around the component to be locked.
Option C. once, then discarded.
Correct Answer is. indefinitely providing it is a good fit around the component to be locked.
Explanation. CAAIP S Leaflet 2-5 5.1.

Question Number. 3. A hi-lock collar should be.
Option A. not lubed or washed because they are lubed at manufacture.
Option B. washed in solvent before fitting.
Option C. lubricated before fitting.
Correct Answer is. not lubed or washed because they are lubed at manufacture.
Explanation. NIL.

Question Number. 4. When drilling out a rivet, use a drill.
Option A. larger than the hole.
Option B. same size as the hole.
Option C. smaller than the hole.
Correct Answer is. same size as the hole.
Explanation. CAAIP S Leaflet 6-4 3.7.1 says 'drill equal in diameter than that of the rivet', but CAIP S BL/6-29 para 10.1 says 'slightly smaller'. We chose the former, because it is current. Also A&P Technician Airframe Textbook 2-67.

Question Number. 5. When riveting two dissimilar sheets of metal together the joint should be protected with.

Option A. jointing compound.
Option B. paint.
Option C. grease.
Correct Answer is. jointing compound.
Explanation. NIL.

Question Number. 6. The maximum temperature for Nyloc nuts is.
Option A. 120°C.
Option B. 100°C.
Option C. 160°C.
Correct Answer is. 120°C.
Explanation. NIL.

Question Number. 7. What type of rivet would you use when there is access to only one side of the work?.
Option A. Blind.
Option B. Pop.
Option C. Hilok.
Correct Answer is. Blind.
Explanation. CAIP S BL/6-28.

Question Number. 8. Torque loading is carried out to provide.
Option A. as tight a joint as possible.
Option B. sufficient clamping without over-stressing.
Option C. flexibility.
Correct Answer is. sufficient clamping without over-stressing.
Explanation. NIL.

Question Number. 9. What is generally the best procedure to use when removing a solid shank rivet?.
Option A. Drill through the manufactured head and shank with a drill one size smaller than the rivet and remove the rivet with a punch.
Option B. Drill through the manufactured head and shank with a shank size drill and remove the rivet with a punch.
Option C. Drill to the base of the manufactured rivet head with a drill one size smaller than the rivet shank and remove the rivet with a punch.
Correct Answer is. Drill to the base of the manufactured rivet head with a drill one size smaller than the rivet shank and remove the rivet with a punch.

Explanation. CAAIP S Leaflet 6-4 3.7.1 says 'drill equal in diameter than that of the rivet', but CAIP S BL/6-29 para 10.1 says 'slightly smaller'. Both documents say 'to the base of the head only'.

Question Number. 10. What action is taken with a common circlip removed from a component?.
Option A. It is replaced with a new item on assembly.
Option B. It is checked for springiness.
Option C. It is examined for distortion.
Correct Answer is. It is checked for springiness.
Explanation. NIL.

Question Number. 11. The maximum bolt diameter for which a 1/16 split pin may be used is.
Option A. 7/16.
Option B. 1/4.
Option C. 3/8.
Correct Answer is. 3/8.
Explanation. Leaflet 2-5 table 1.

Question Number. 12. Why is a shouldered stud used?.
Option A. To provide a rigid assembly.
Option B. To decrease weight without loss of strength.
Option C. As a replacement for a damaged stud.
Correct Answer is. To provide a rigid assembly.
Explanation. NIL.

Question Number. 13. A thread insert is removed by.
Option A. once fitted, a thread insert must not be removed.
Option B. using a drill the major diameter of the thread insert.
Option C. a special drill provided by the thread insert manufacturer.
Correct Answer is. a special drill provided by the thread insert manufacturer.
Explanation. NIL.

Question Number. 14. When fitting Rivnuts into position, how are they secured and prevented from rotating?.
Option A. Locknut at the rear.
Option B. A locating key.
Option C. Peened.
Correct Answer is. A locating key.

Explanation. Jeppesen A&P Airframe Technician Textbook Page 2-48.

Question Number. 15. Hi-loks are installed with the.
Option A. thread and shank not lubricated.
Option B. shank lubricated when fitting.
Option C. thread lubricated when fitting.
Correct Answer is. thread and shank not lubricated.
Explanation. The threads are lubricated at manufacture - not during fitting.

Question Number. 16. A jury strut is one giving.
Option A. a temporary support.
Option B. a part of the structure that takes only tensile loads.
Option C. additional support to a stressed area.
Correct Answer is. a temporary support.
Explanation. CAIP S AL/7-14 Para 2-3-5.

Question Number. 17. Which type of repair has to be used where the damage is large and lost strength of the area has to be restored?.
Option A. Filling plate and patch.
Option B. Patch repair to the punctured skin.
Option C. Insert and butt strap.
Correct Answer is. Insert and butt strap.
Explanation. NIL.

Question Number. 18. Which of the following actions would be taken to fit a locking device to a nut or bolt, if the correct torque has been reached but the locking device will not fit?.
Option A. Tighten further until device fits.
Option B. File the base of the nut.
Option C. Change the nut or bolt for one that will achieve the desired condition.
Correct Answer is. Change the nut or bolt for one that will achieve the desired condition.
Explanation. BL/6-30 para 3.3.

Question Number. 19. In the Push-pull tube linkage used in aircraft flying control systems, how is the length of the tube adjusted?.
Option A. Fit anew push-pull tube.
Option B. By adjusting end fittings at each end of the tube.
Option C. It is fixed and does not require adjusting.
Correct Answer is. By adjusting end fittings at each end of the tube.

Explanation. NIL.

Question Number. 20. Spotfacing is done to.
Option A. provide a flat area on a rough surface.
Option B. compensate for height in lieu of a spring washer.
Option C. provide a good surface for welding.
Correct Answer is. provide a flat area on a rough surface.
Explanation. NIL.

Question Number. 21. When fitting a hydraulic component, the hydraulic seal should be lubricated with.
Option A. with a specified hydraulic oil.
Option B. grease.
Option C. the same fluid that is used in the hydraulic system (e.g. skydrol).
Correct Answer is. the same fluid that is used in the hydraulic system (e.g. skydrol).
Explanation. Hydraulic seals are lubricated with the same hydraulic fluid that they are used with.

Question Number. 22. A gap in a firewall can be plugged by.
Option A. an aluminum plate.
Option B. a fireproof bung or bush.
Option C. a plastic bung.
Correct Answer is. a fireproof bung or bush.
Explanation. A gap in a firewall must be filled with approved fireproof material.

Question Number. 23. In a critically bolted joint.
Option A. a PLI washer can be used more than once only with self locking nuts.
Option B. a PLI washer can be affected by thread lubricant.
Option C. a PLI washer can only be used once.
Correct Answer is. a PLI washer can only be used once.
Explanation. CAIP AL/7-8 4.5.3.

Question Number. 24. Which of the following jointing compounds should not be used in the vicinity of a joint where the temperature may exceed 200°C?.
Option A. DTD 900.
Option B. DTD 200.
Option C. DTD 369.
Correct Answer is. DTD 369.
Explanation. CAIP S AL/7-8 3.4.

Question Number. 25. Why is jointing compound applied to the surfaces of material being joined together prior to riveting?.
Option A. To act as a sealant and prevent filiform corrosion.
Option B. To inhibit electrolytic action.
Option C. To prevent swarf damage.
Correct Answer is. To inhibit electrolytic action.
Explanation. CAIP S BL/6-29.

Question Number. 26. A metallic stiff nut.
Option A. cannot be torque loaded.
Option B. cannot be used in areas in excess of 250oC.
Option C. is pre lubricated and does not need lubricating.
Correct Answer is. cannot be used in areas in excess of 250oC.
Explanation. Leaflet 3-4 4.2.3 (assuming it means HTS cad plated and not CRS, but a and b are not correct anyway).

Question Number. 27. How do you prevent earth loops forming on screened cables?.
Option A. Do not earth the screen.
Option B. Earth both ends of the screen.
Option C. Earth one end of the screen.
Correct Answer is. Earth one end of the screen.
Explanation. Electromagnetic Compatibility. Earth one end of the screen.

Question Number. 28. When fitting a shackle pin, fit with.
Option A. head uppermost.
Option B. 0.020.
Option C. a shake-proof washer under the head.
Correct Answer is. head uppermost.
Explanation. The heads of all fasteners should be uppermost where possible.

Question Number. 29. The threads on a stud.
Option A. are of opposite hand at each end of the plain of portion.
Option B. are of the same hand at each end of the plain portion.
Option C. are continuous throughout its length and there is no plain portion.
Correct Answer is. are of the same hand at each end of the plain portion.
Explanation. The threads on a stud are the same hand at each end of the plain portion.

Question Number. 30. The angle between starts on a double start thread is.
Option A. 180 degrees.
Option B. 120 degrees.
Option C. 90 degrees.
Correct Answer is. 180 degrees.
Explanation. NIL.

Question Number. 31. What does 18N and contiguous circles on the head of a bolt indicate?.
Option A. 1.8 inch threaded portion and plain shank 1/2 inch UNF.
Option B. 1.8 inch nominal length 1/2 inch BSF.
Option C. 1.8 inch plain shank 1/2 inch UNF.
Correct Answer is. 1.8 inch plain shank 1/2 inch UNF.
Explanation. Leaflet 3-3 2.3.4. BL/2-3 2.1.2.

Question Number. 32. A UNF bolt is indicated by.
Option A. a triangle on the head.
Option B. 2-3 rings on the head.
Option C. green dye.
Correct Answer is. 2-3 rings on the head.
Explanation. CAAIP Leaflet 3-3 2.3.4 (a).

18e. Disassembly, Inspection, repair and Assembly Techniques.

Question Number. 1. Immediately after carrying out an insulation check, which of the following applies?.
Option A. A continuity check must be carried out before switching on the circuit for the first time.
Option B. The readings observed and the atmospheric conditions at the time should be noted and compared to previous readings.
Option C. The observed readings should be noted and an independent check carried out by another engineer.
Correct Answer is. The readings observed and the atmospheric conditions at the time should be noted and compared to previous readings.
Explanation. Leaflet 9-1 4.5.3. EEL / 1-6 Para 4-5-3.

Question Number. 2. An Insulation test is carried out on a group of cables and a low reading obtained. What action would you take?.
Option A. A low reading would be expected because the cables are in parallel.

Option B. Change or renew all the cables involved in the test.
Option C. Break the circuit down and carry out further checks.
Correct Answer is. Break the circuit down and carry out further checks.
Explanation. EEL / 1-6 Para 4-4-2 & Leaflet 9-1 4.4.2.

Question Number. 3. BITE systems to be used on the ground only are deactivated by.
Option A. on take off.
Option B. the parking break.
Option C. by the undercarriage retraction.
Correct Answer is. on take off.
Explanation. A proximity switch on the undercarriage will signal a computer (Airbus) or a Proximity Sensor Control Unit (Boeing). This signal is then sent to all appropriate units.

Question Number. 4. After the normal function test of an individual circuit has been completed and the circuit switched off.
Option A. a second function test must be carried out to verify the first.
Option B. the fuse should be removed and the circuit again switched on to check the isolation of the circuit concerned.
Option C. a duplicate check must be carried out in accordance with AWN 3.
Correct Answer is. the fuse should be removed and the circuit again switched on to check the isolation of the circuit concerned.
Explanation. CAIP S EEL/1-6 Para 4-6-3.

Question Number. 5. A millivolt drop check is to be carried out on a heavy duty relay. The Millivoltmeter would be connected to the relay.
Option A. when contacts closed and power is on.
Option B. when contacts open and power off.
Option C. when contacts are open and power is on.
Correct Answer is. when contacts closed and power is on.
Explanation. Leaflet 9-1 Para.4.3.

Question Number. 6. Electrical cables installed on aircraft. What is used to indicate a fault?.
Option A. Bonding test.
Option B. Continuity test.
Option C. Resistance test.
Correct Answer is. Continuity test.
Explanation. CAAIP S Leaflet 9-1, 4.2.1.

Question Number. 7. When checking resistance of a cable to the starter motor what test is carried out?.
Option A. Millivolt drop test.
Option B. Safety Ohmmeter.
Option C. Time Domain Reflectometer.
Correct Answer is. Millivolt drop test.
Explanation. NIL.

19a. Abnormal Events.

Question Number. 1. When inspecting an aircraft after a lightning strike, you should observe.
Option A. entry damage.
Option B. all signs of burning.
Option C. entry and exit damage.
Correct Answer is. all signs of burning.
Explanation. AL/7-1 5.4.

Question Number. 2. To ensure protection against HIRF affecting audio and navigation aids.
Option A. ensure that all audio and navigation equipment is adequately screened.
Option B. inspect and check all bonding leads to ensure their serviceability and replace if defective.
Option C. ensure that the correct number of static wicks are fitted.
Correct Answer is. ensure that all audio and navigation equipment is adequately screened.
Explanation. Understanding HIRF By Gerald L. Fuller.

Question Number. 3. Which of the following is a preventive process against HIRF?.
Option A. Monitoring HIRF on the communication system.
Option B. Visual inspections.
Option C. Periodically checking aircraft bonding.
Correct Answer is. Visual inspections.
Explanation. Understanding HIRF By Gerald L. Fuller.

Question Number. 4. How do you prevent aquaplaning during landing?.
Option A. Reduce flare.

Option B. Use reverse thrust.
Option C. Put flaps up.
Correct Answer is. Use reverse thrust.
Explanation. Aquaplaning is caused by excessive speed on a wet runway. Reverse thrust slows the aircraft and allows the wheels to continue turning (rather than 'planing' which they do if they are locked by the brakes).

Question Number. 5. Skin wrinkling on the lower surface of a wing is caused by.
Option A. hogging.
Option B. tension.
Option C. sagging.
Correct Answer is. hogging.
Explanation. NIL.

Question Number. 6. After a report of flight through heavy turbulence, you would.
Option A. check the aircraft symmetry.
Option B. carry out a major overhaul.
Option C. not carry out any checks.
Correct Answer is. check the aircraft symmetry.
Explanation. CAAIP S Leaflet 6-3.

Question Number. 7. After a heavy landing you should check.
Option A. engine compressor shaft alignment.
Option B. engine thrust alignment.
Option C. engine module alignment.
Correct Answer is. engine thrust alignment.
Explanation. Leaflet 6-3 2.8 (b)©.

Question Number. 8. A lightning strike on an aircraft would show.
Option A. the entry and exit point.
Option B. the entry point only.
Option C. the exit point only.
Correct Answer is. the entry and exit point.
Explanation. NIL.

Question Number. 9. When an engine is not in direct electrical contact with its mounting, how should it be bonded?.
Option A. With at least one primary conductor.

Option B. With at least two primary conductors on one side of the engine.
Option C. With at least two primary conductors, one each side of the engine.
Correct Answer is. With at least two primary conductors, one each side of the engine.
Explanation. Leaflet 9-1 3.5.9. EEL/1-6 Para 3.5.7.

Question Number. 10. On a composite aircraft, large items are bonded.
Option A. by use of large copper strips.
Option B. Don't need to be bonded because they are made of an insulating material.
Option C. by primary bonding leads attached to a cage.
Correct Answer is. by primary bonding leads attached to a cage.
Explanation. Leaflet 9-1 3.4.2.

Question Number. 11. HIRF interference occurs when.
Option A. in use on mid frequencies.
Option B. in use on low frequencies.
Option C. in use on all frequencies.
Correct Answer is. in use on all frequencies.
Explanation. HIRF is a problem from 10kHz - 18GHz (Civil-40 GHz Military) Understanding HIRF By Gerald
L. Fuller.

Question Number. 12. Non metallic parts of the aircraft.
Option A. do not require to be bonded because they are non conductive.
Option B. must be bonded by bonding leads.
Option C. must be bonded by application of conductive paint.
Correct Answer is. must be bonded by application of conductive paint.
Explanation. Leaflet 9-1 Para.3.4.4.

Question Number. 13. Whenever possible a functional test should be carried out on an aircraft using which power supply?.
Option A. The aircraft battery.
Option B. The aircraft generators.
Option C. An external supply.
Correct Answer is. An external supply.
Explanation. Leaflet 9-1 4.6.1.

Question Number. 14. How many primary bonding conductors are required on an engine?.

Option A. 1 only.
Option B. 2 on one side.
Option C. 1 on each side.
Correct Answer is. 1 on each side.
Explanation. Leaflet 9-1 Para 3.5.9 and EEL/1-6 Para.3.5.9.

Question Number. 15. What is the primary purpose of bonding of metallic parts of an aircraft?.
Option A. To provide a return path for electrical two-wire system.
Option B. To prevent high potential differences between metallic parts from building up.
Option C. To prevent lightening strikes.
Correct Answer is. To prevent high potential differences between metallic parts from building up.
Explanation. Leaflet 9-1 3.2.

Question Number. 16. In order to maintain HIRF protection, bonding checks between airframe and electrical components carrying voltages greater than 50V RMS or dc should not exceed.
Option A. 0.05 ohm.
Option B. 1 ohm.
Option C. 1 M ohm.
Correct Answer is. 1 ohm.
Explanation. Leaflet 9-1 3.8 table 1CAIP S EEL/1-6 Para 3.8 Table 1.

Question Number. 17. Ribbon cables affected by mutual impedance and current loop leakage should be protected by.
Option A. earthing each alternate conductor to separate points.
Option B. connecting all conductors to a common earth.
Option C. shielding each individual conductor.
Correct Answer is. earthing each alternate conductor to separate points.
Explanation. NIL.

19b. Abnormal Events.

Question Number. 1. An aircraft with under-wing mounted engines has a heavy landing, where would you expect to see wrinkling of the skins?.
Option A. Bottom skin caused by engine inertia.

Option B. Top skin only.
Option C. On the top and bottom skins.
Correct Answer is. On the top and bottom skins.
Explanation. Leaflet 6-3 2.6 (a) and AL/7-1 Para 2-6 (a).

Question Number. 2. Which of the following could be a primary cause of HIRF protection failure?.
Option A. Corrosion on bonding leads.
Option B. Broken or missing static wicks.
Option C. Unserviceable radio filters.
Correct Answer is. Unserviceable radio filters.
Explanation. Understanding HIRF By Gerald L. Fuller.

Question Number. 3. What is the reason for a primary bonding connection's large cross-sectional area?.
Option A. To carry the static discharge current to the conducting nose wheel.
Option B. To carry lightening discharge current should the need arise.
Option C. To maintain the airframe at the same potential throughout.
Correct Answer is. To carry lightening discharge current should the need arise.
Explanation. CAAIP S leaflet 9-1 3.3.1 Jeppesen A&P Mechanics Handbook Pg.452.

Question Number. 4. When an aircraft has been struck by lightning.
Option A. control surface bearings and hinges should be checked for stiffness in operation.
Option B. control surface freedom of movement need not be checked provided skin punctures are less than 3/16 inch diameter.
Option C. control surface freedom of movement need not be checked providing the bonding is undamaged.
Correct Answer is. control surface bearings and hinges should be checked for stiffness in operation.
Explanation. Leaflet 6-3 6.4 CAIP S AL/7-1 5.4.

Question Number. 5. On an aircraft which has had a heavy landing, on the lower wing you may see.
Option A. sagging.
Option B. hogging.
Option C. wrinkling.
Correct Answer is. wrinkling.
Explanation. Leaflet 6-3 para.2.6.

Question Number. 6. After a reported lightning strike.
Option A. the flight controls should be checked for full and free movement before the next flight.
Option B. the flight controls need to be checked for full and free movement only if a bonding lead to one of the control surfaces is found to be burned or broken.
Option C. the aircraft and its systems must have a major overhaul before the next flight.
Correct Answer is. the flight controls should be checked for full and free movement before the next flight.
Explanation. NIL.

20. Maintenance Procedures.

Question Number. 1. Mandatory Warning Plaques and symbols.
Option A. must be displayed on all flights.
Option B. must be displayed in the cabin only if they are legible.
Option C. need not be displayed if they are incorporated in the flight manual.
Correct Answer is. must be displayed on all flights.
Explanation. NIL.

Question Number. 2. Following a major defect the C of A.
Option A. is not affected, however may run out on a time basis.
Option B. will be invalidated and needs renewing.
Option C. Nothing will happen.
Correct Answer is. is not affected, however may run out on a time basis.
Explanation. NIL.

Question Number. 3. When storing parts you should use.
Option A. monitor the temperature.
Option B. silica gel.
Option C. place in a sealed container.
Correct Answer is. silica gel.
Explanation. CAAIP S Leaflet 1-8 2.2.3.

Question Number. 4. ATA specification 100 is.
Option A. the procedures which must be complied with before an aircraft can be given a Certificate of Airworthiness in the Transport Category (Passenger).

Option B. the International standardization of maintenance manuals, illustrated parts catalogues, overhaul and repair manuals, service bulletins and letters.
Option C. the American FAA specification controlling the manufacture of aluminum and its alloys.
Correct Answer is. the International standardization of maintenance manuals, illustrated parts catalogues, overhaul and repair manuals, service bulletins and letters.
Explanation. Jeppesen A&P General Textbook 14-12.

Question Number. 5. An aircraft should carry at least the following number of spare fuses:.
Option A. 10.
Option B. 3.
Option C. 3 or 10%, whichever is greater.
Correct Answer is. 3 or 10%, whichever is greater.
Explanation. ANO Schedule 4.

Question Number. 6. Maintenance Schedules are issued.
Option A. in a folder with the operators name on the cover.
Option B. with an approval certificate by the CAA.
Option C. by the operator with CAA approval.
Correct Answer is. by the operator with CAA approval.
Explanation. BCAR A/B 6-2 Para. 3.4.

Question Number. 7. After a mandatory inspection has been carried out by a Licensed Engineer, what is issued.
Option A. a Certificate of Maintenance Review.
Option B. Certificate of Release to Service.
Option C. a Flight Release Certificate.
Correct Answer is. Certificate of Release to Service.
Explanation. NIL.

Question Number. 8. A hard time engine inspection involves.
Option A. replacement with a new or overhauled component.
Option B. an in-situ function test.
Option C. removal of an engine component, its inspection and refitting.
Correct Answer is. replacement with a new or overhauled component.
Explanation. Leaflet 1-7 2.2.1.

Question Number. 9. Who approves Maintenance Manuals?.
Option A. The CAA.
Option B. The Department of Trade and Industry.
Option C. The Board of Trade.
Correct Answer is. The CAA.
Explanation. NIL.

Question Number. 10. A Certificate of Release to Service must be issued after.
Option A. a repair has been carried out in accordance with an approved repair scheme.
Option B. a re-fuel has been done.
Option C. engine runs.
Correct Answer is. a repair has been carried out in accordance with an approved repair scheme.
Explanation. NIL.

Question Number. 11. If the operator varies the content of the maintenance schedule, what action must be taken?.
Option A. Amend the Maintenance Schedule and seek the CAA approval.
Option B. Await CAA approval before amending the Maintenance Schedule.

Option C. Amend the Maintenance Schedule.
Correct Answer is. Await CAA approval before amending the Maintenance Schedule.
Explanation. NIL.

Question Number. 12. When is an EASA Permit to Fly conditions required?.
Option A. To allow an unregistered aircraft to fly for air test.
Option B. To allow an aircraft to fly on air test to check out a modification.
Option C. After a Certificate of Maintenance Review has been signed.
Correct Answer is. To allow an aircraft to fly on air test to check out a modification.
Explanation. NIL.

Question Number. 13. When there is an overlap of responsibility, how is the CRS signed?.
Option A. Appropriate Type Rated Licensed Aircraft Engineers must each certify the parts appropriate to their license coverage.

Option B. Only one appropriate Type Rated Licensed Aircraft Engineer may sign the CRS as he assumes responsibility for the operation, the other engineers must sign the paperwork.
Option C. An appropriate Type Rated Licensed Aircraft Engineer and an ATPL holder sign the CRS when the aircraft is away from base.
Correct Answer is. Appropriate Type Rated Licensed Aircraft Engineers must each certify the parts appropriate to their license coverage.
Explanation. AWN 3.

Question Number. 14. Information contained in the ANO is.
Option A. of a legal nature in all sections and is therefore mandatory.
Option B. of a mandatory nature where safety is concerned.
Option C. written in compliance of the Civil Aviation Act of 1943 ratifying the ICAO Convention.
Correct Answer is. of a legal nature in all sections and is therefore mandatory.
Explanation. NIL.

Question Number. 15. An 'On Condition' Inspection involves.
Option A. a program of inspections used to increase the life of lifed components.
Option B. an inspection of a component with a view to continued operation if its condition warrants such action.
Option C. replacement of life expired components for new ones.
Correct Answer is. an inspection of a component with a view to continued operation if its condition warrants such action.
Explanation. CAIP S BL/ 1-16 Para 2-2-2.

Question Number. 16. Air Navigation General Regulations are to be found in.
Option A. Airworthiness Requirements CAP 455.
Option B. British Civil Airworthiness Requirements Section A.
Option C. CAA Printed Manual CAP 393.
Correct Answer is. CAA Printed Manual CAP 393.
Explanation. CAIP S BL/1-9 Para 8-11.

Question Number. 17. The information in the ANO is given in the form of.
Option A. Articles of Law, some of which are further clarified by Schedules.
Option B. Chapters, each one dealing with a different aspect of Civil Aviation, these chapters being backed up by the schedules.
Option C. Regulations, each one covering a different aspect of Civil Aviation and as such is mandatory.

Correct Answer is. Articles of Law, some of which are further clarified by Schedules.
Explanation. CAIP S BL/1-9 Para 4.

Question Number. 18. British Civil Airworthiness Requirements.
Option A. form the Technical requirements for the design and operation of aircraft and their equipment.
Option B. interpret the ANO and form the Technical requirements for the design.
Option C. are printed by the CAA and are of an advisory nature.
Correct Answer is. interpret the ANO and form the Technical requirements for the design.
Explanation. CAIP S BL/1-9 Para 4-4.

Question Number. 19. A CMR is raised after.
Option A. defect rectification.
Option B. scheduled servicing at specified intervals.
Option C. major overhaul.
Correct Answer is. scheduled servicing at specified intervals.
Explanation. NIL.

Question Number. 20. Compliance with the ANO is restricted to.
Option A. aircraft and their equipment which are on the UK Civil Register only.
Option B. aircraft and their equipment which are on the UK & Commonwealth Civil Registers.
Option C. All civil aircraft and their equipment on the international Civil Register.
Correct Answer is. aircraft and their equipment which are on the UK Civil Register only.
Explanation. NIL.

Question Number. 21. A Certificate of Release to service states that.
Option A. a task has been carried out in accordance with the ANO.
Option B. an operator has satisfied the CAA of his competence.
Option C. the aircraft has been maintained to an approved schedule.
Correct Answer is. a task has been carried out in accordance with the ANO.
Explanation. NIL.

Question Number. 22. Technical and Administrative information is officially circulated to L.A.M.E.S. in.
Option A. B.C.A.R.s.
Option B. A.W.N.s.
Option C. CAIP.s.
Correct Answer is. A.W.N.s.
Explanation. NIL.

Question Number. 23. Vital point inspections are carried out.
Option A. after an area is disturbed.
Option B. on a 'C' check.
Option C. on an 'A' Check.
Correct Answer is. after an area is disturbed.
Explanation. BCAR A5-3 para 3 states: VITAL POINTS are any point on an aircraft at which single malassembly could lead to catastrophe.

Question Number. 24. What colour is used to identify a 'primary structure' when using the aircraft Maintenance
Manual?.
Option A. Yellow.
Option B. Green.
Option C. Red.
Correct Answer is. Red.
Explanation. NIL.

Question Number. 25. Which of the following NDT methods can be carried out and certified by a mechanic not approved specifically for NDT inspections.

Option A. Ultrasonic.
Option B. Magnetic Particle.
Option C. Neither of the above.
Correct Answer is. Neither of the above.
Explanation. AWN 3 para 1.7.

Question Number. 26. B.C.A.R's.
Option A. contain minimum requirements to be met.
Option B. are issued by Ministry of Trade and Industry.
Option C. detail mandatory requirements for aircraft design and construction.
Correct Answer is. contain minimum requirements to be met.
Explanation. CAIP S BL / 1-9 Para 6-1.

Question Number. 27. The purpose of the CRS is.
Option A. to ensure that the log book entry is complete.
Option B. to turn a log book or job card entry into a legal document and to ensure that the signatory takes full responsibility for the work done.
Option C. to comply with article 15 of the ANO which states that an aircraft must not fly unless it is properly equipped for the intended flight.
Correct Answer is. to turn a log book or job card entry into a legal document and to ensure that the signatory takes full responsibility for the work done.
Explanation. AWN 3 para 1.5.

Question Number. 28. Duplicate inspections are.
Option A. inspections which have to be duplicated but which can finally be certified by one LAE or approved signatory.
Option B. inspections certified by one approved signatory or LAE and then certified by a second approved signatory or LAE.
Option C. inspections signed by a mechanic and countersigned by an approved signatory or licensed engineer.
Correct Answer is. inspections certified by one approved signatory or LAE and then certified by a second approved signatory or LAE.
Explanation. NIL.

Question Number. 29. When related to aeronautical engineering, the term 'Inspection' is defined in the publication.
Option A. Airworthiness Notice (AWN) 3.
Option B. ANO article 11.
Option C. BCAR Section L.
Correct Answer is. Airworthiness Notice (AWN) 3.
Explanation. AWN 3 page 2 para 1.2 (d).

Question Number. 30. The technical laws relating to Civil Aviation are contained in.
Option A. the Civil Aircraft Inspection Procedures.
Option B. the Air Navigation Order.
Option C. the Civil Aviation Act 1971.
Correct Answer is. the Air Navigation Order.
Explanation. NIL.

Question Number. 31. Civil aircraft manufactured in the UK are constructed from parts that have been.
Option A. manufactured to approved drawings.
Option B. manufactured by British Aerospace.
Option C. tested to destruction.
Correct Answer is. manufactured to approved drawings.
Explanation. NIL.

Question Number. 32. Design drawings of aircraft components are produced by organisations approved by.
Option A. C.A.A. in accordance with BCAR.
Option B. British Standards Institute.
Option C. S.B.A.C.
Correct Answer is. C.A.A. in accordance with BCAR.
Explanation. CAIP S BL / 1-4 Para 2.

Question Number. 33. Civil Aircraft Airworthiness Information Procedures.
Option A. contain information of a mandatory nature.
Option B. contain approved inspection schedules.
Option C. are a guide to the general maintenance of aircraft.
Correct Answer is. are a guide to the general maintenance of aircraft.
Explanation. NIL.

Question Number. 34. British Civil Airworthiness Requirements.
Option A. specify the minimum qualifications for aircrew and engineers.
Option B. list the minimum design requirements for aircraft.
Option C. give General technical information.
Correct Answer is. list the minimum design requirements for aircraft.
Explanation. CAIP S BL / 1-9 Para 6-1.

Question Number. 35. What work has to be recorded and signed for?.
Option A. Only work which entails a duplicate inspection.
Option B. Only work involving replacements.
Option C. All work carried out.
Correct Answer is. All work carried out.
Explanation. NIL.

Question Number. 36. Are CAAIP. mandatory?.
Option A. Only selected parts which are in B.C.A.R.
Option B. Yes, but only for six months at a time.

Option C. No, nothing in CAAIPs is mandatory.
Correct Answer is. No, nothing in CAAIPs is mandatory.
Explanation. NIL.

Question Number. 37. With a serviceable chain not required for use, how should you store it?.
Option A. Lay the chain flat in full length , lubricate and wrap in brown paper to exclude all dirt and moisture.
Option B. Clean, lubricate, wrap the chain in grease proof paper and suspend.
Option C. Carefully coil, lubricate, lay flat and wrap in grease proof paper.
Correct Answer is. Carefully coil, lubricate, lay flat and wrap in grease proof paper.
Explanation. DLeaflet 5-4 6.7. CAIP S AL/3-2 Para 6.7.

Question Number. 38. What is the licensed engineer responsible for when fitting a new component to an aircraft?.
Option A. That the paperwork is signed by an approved signatory.
Option B. That is has a green serviceable tag.
Option C. The correct part number, the modification state and the serviceability of the component.
Correct Answer is. The correct part number, the modification state and the serviceability of the component.
Explanation. NIL.

Question Number. 39. If an aircraft exceeded the RVSM, when shall the crew report the incident in the appropriate channels.
Option A. 48 hrs.
Option B. 24 hrs.
Option C. 72 hrs.
Correct Answer is. 72 hrs.
Explanation. Reduced Vertical Separation Minimum excedance is an 'Incident'. JAR OPS Subpart D. Para.1.420.

Question Number. 40. If the aircraft is away from base who may certify the second part of the duplicate inspection?.
Option A. a pilot with a licence for the aircraft type.
Option B. a pilot with a licence for any similar aircraft type.
Option C. any licensed engineer.
Correct Answer is. a pilot with a licence for the aircraft type.
Explanation. BCAR A/B 6-2 10.3.9.

Question Number. 41. Block cumulative maintenance means that.
Option A. all the checks require the same man hour input except for the major inspections.
Option B. each check usually involves an increased aircraft down time.
Option C. all the maintenance is carried out in blocks.
Correct Answer is. each check usually involves an increased aircraft down time.

Explanation. NIL.

Question Number. 42. A separate modification record book is required for.
Option A. passenger aircraft exceeding 2730 kgs MTWA.
Option B. all aircraft.
Option C. passenger aircraft exceeding 3600 kgs MTWA.
Correct Answer is. passenger aircraft exceeding 2730 kgs MTWA.
Explanation. BCAR A/B 7-9 Para.1.3.

Question Number. 43. Sector record pages from the Tech Logs, must be.
Option A. at least duplicated.
Option B. retained for two years from the date of issue.
Option C. retained for four years from the last effective date.
Correct Answer is. at least duplicated.
Explanation. BCAR A/B 7-8 Para.4.1.

Question Number. 44. Minimum equipment to be carried is listed in.
Option A. JAR 145.
Option B. JAR OPS.
Option C. JAR 25.
Correct Answer is. JAR OPS.
Explanation. JAR OPS subpart K.

Question Number. 45. What should be checked before a licensed engineer signs a CRS?.
Option A. That he/she has worked for 6 months on the aircraft type within the previous 2 years.
Option B. That he/she has worked for 4 months on the aircraft type within the previous 2 years.
Option C. That he/she has had continuation training within the previous 2 years.
Correct Answer is. That he/she has worked for 6 months on the aircraft type within the previous 2 years.

Explanation. JAR 145.35 and associated IEM.

Question Number. 46. Rubber components should be stored.
Option A. in a cool dark area.
Option B. in warm and humid conditions.
Option C. in a well lit room.
Correct Answer is. in a cool dark area.
Explanation. Leaflet 1-8 3.13.1 and 3.13.3.

Question Number. 47. Storage of components to prevent corrosion is helped.
Option A. by using silica gel.
Option B. by wrapping in grease proof paper.
Option C. by placing them in a plastic box.
Correct Answer is. by using silica gel.
Explanation. BL/1-7 2.2.3Silica gel (silica dioxide) is a 'desiccant' i.e. it absorbs moisture.

Question Number. 48. Dye penetrant kits should be stored.
Option A. out of sunlight in a dry place.
Option B. in direct sunlight to keep it dry.
Option C. in a dark damp cupboard.
Correct Answer is. out of sunlight in a dry place.
Explanation. NIL.

Question Number. 49. When receiving new parts it is the responsibility of the engineer to check.
Option A. it has a green serviceable label attached.
Option B. it is of the correct modification state and is serviceable.
Option C. it was designed to acceptable standards.
Correct Answer is. it is of the correct modification state and is serviceable.
Explanation. AWN 3.

Question Number. 50. For airworthiness purposes, aircraft structural parts are graded as.
Option A. primary, secondary and tertiary.
Option B. class A, B and C.
Option C. 1, 2 and 3.
Correct Answer is. primary, secondary and tertiary.
Explanation. Primary, secondary and tertiary are the three 'structure' classifications.

Question Number. 51. If an unauthorized repair is carried out
Option A. the aircraft can fly with a Certificate of Fitness for Flight.
Option B. the Cof A is invalidated until an authorized repair has been done.
Option C. the Cof A is not invalidated providing a CRS is issued.
Correct Answer is. the Cof A is invalidated until an authorized repair has been done.
Explanation. NIL.

Question Number. 52. A C.of A. for export.
Option A. does not give authority by it self for the aircraft to fly.
Option B. gives authority for the aircraft to fly.
Option C. is required before aircraft registration in a foriegn country.
Correct Answer is. does not give authority by it self for the aircraft to fly.
Explanation. NIL.

Question Number. 53. A fitness for flight is issued for an aircraft after a major modification by.
Option A. the pilot, type rated on that particular aircraft.
Option B. a appropriate licensed aircraft engineer.
Option C. a CAA surveyor or person approved within the CAA.
Correct Answer is. a appropriate licensed aircraft engineer.
Explanation. NIL.

Question Number. 54. An unauthorised repair has been carried out.
Option A. sign a CRS for the repair.
Option B. apply for it as a modification.
Option C. carryout an approved repair.
Correct Answer is. carryout an approved repair.
Explanation. NIL.

Question Number. 55. A Part-66 licensed engineer, when signing a CRS for a non-Part-145 company would need to have.
Option A. maintenance experience for 6 months within the last 24 months.
Option B. an aircraft type refresher in the last 24 months.
Option C. maintenance experience for 4 months within the last 24 months.
Correct Answer is. maintenance experience for 6 months within the last 24 months.
Explanation. NIL.

Question Number. 56. A National UK licensed engineer, when signing a CRS would need to have.
Option A. an aircraft type refresher in the last 24 months.
Option B. maintenance experience for 4 months within the last 24 months.
Option C. maintenance experience for 6 months within the last 24 months.
Correct Answer is. maintenance experience for 6 months within the last 24 months.
Explanation. AWN 3 (issue 20) pg 4 para 1.8.

Question Number. 57. Vital point inspections.
Option A. are points which require special certifying LAEs.
Option B. are components which involve duplicate inspections.
Option C. are lifed components.
Correct Answer is. are components which involve duplicate inspections.
Explanation. BCAR A5-3 para 3 states: VITAL POINTS are any point on an aircraft at which single malassembly could lead to catastrophe, ie. result in loss of aircraft and/or in fatalities. Hence the need for duplicate inspections, AWN 3 pg 3 para 1.6.

Question Number. 58. On a pre flight check you notice an instrument glass is cracked. You should.
Option A. enter into technical log.
Option B. check MEL.
Option C. tell oncoming captain.
Correct Answer is. check MEL.
Explanation. NIL.

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Question Number. 1. A Category-A licenced engineer can sign a CRS for what?.
Option A. A task he has been locally trained for.
Option B. An aircraft that he has sufficient type ratings for.
Option C. A task that someone else has completed.
Correct Answer is. A task he has been locally trained for.
Explanation. NIL.

Question Number. 2. When removing a piece of equipment from an aircraft that supports the aircraft, what should you do?.
Option A. Go ahead and remove the part.

Option B. Wait for the new part to arrive before replacing.
Option C. Fit a jury strut in place of the removed part.
Correct Answer is. Fit a jury strut in place of the removed part.
Explanation. NIL.

Question Number. 3. How do you prime a dead weight tester?.
Option A. wind handle fully out and pour fluid in the reservoir.
Option B. Remove the weights and pour fluid into the hole.
Option C. wind handle fully in and pour fluid in the reservoir.
Correct Answer is. wind handle fully in and pour fluid in the reservoir.
Explanation. It is normal to wind the handle (and plunger) fully in, fill the reservoir, then wind the handle out, to draw the fluid.

Question Number. 4. When you change an EGT gauge, you should.
Option A. do a test without considering ambient temperature, as it is already accounted for by the instrument.
Option B. do a test immediately, taking ambient temperature into consideration.
Option C. do test letting new gauge 'soak' for 30 minutes then do test taking ambient temperature into consideration.
Correct Answer is. do test letting new gauge 'soak' for 30 minutes then do test taking ambient temperature into consideration.
Explanation. Correction factors for ambient temperatures are usually found on the inside of teh test instrument's lid.

Question Number. 5. What is the problem with using a megger on a piece of equipment containing capacitors.
Option A. Fluctuating readings will occur while the capacitors charge up.
Option B. Feedback from the capacitors will blow the megger up.
Option C. Impedance in the capacitors will give a false high reading.
Correct Answer is. Fluctuating readings will occur while the capacitors charge up.
Explanation. NIL.

Question Number. 6. Water marks on bearings are indications of.
Option A. bearing insufficiently lubricated.
Option B. intergranular corrosion.
Option C. bearing been run dry.
Correct Answer is. intergranular corrosion.

Explanation. Jepperson A & P Airframe Technician Textbook page 9-9 fig 9-11.

Question Number. 7. What is the allowable reaction on a rivet?.
Option A. 2D.
Option B. 1D.
Option C. 1.5D.
Correct Answer is. 1D.
Explanation. Allowance is 1.5D, formed tail is 0.5D, so reaction must be 1.0D.