

With the following changes, this text provides complete preparation for the FAA Aviation Maintenance Technician Airframe Knowledge Exam. The FAA may rearrange the answer stems to appear in a different order on your test than you see in this book. For this reason, be careful to fully understand the intent of each question and corresponding answer while studying, rather than memorize the A, B, C associated with the correct response.

The following changes are printed in ASA's 2009 *Airframe Test Guide*. The FAA is expected to release a new test database in October 2008.

<b>Page Number</b>	<b>Question Number</b>	<b>Correct Answer</b>	<b>Explanation</b>
9	8051	[B]	<i>Change the question and answer stems to read:</i> <b>8051.</b> The installation of Cherrymax and Olympic-Lok rivets is accomplished by utilizing A—rivet gun, special rivet set, and bucking bar. B—a pulling tool. C—ordinary hand tools.
10	8060	[A]	<i>Change the question and answer stems to read:</i> <b>8060.</b> How does acoustic emission testing detect defects in composite materials? A—By picking up the “noise” of any deterioration that may be present. B—By analyzing ultrasonic signals transmitted into the parts being inspected. C—By creating sonogram pictures of the areas being inspected.
11	8067	[B]	<i>Change the answer stems to read:</i> A—E-glass. B—S-glass. C—G-glass.
11	8068	[A]	<i>Change answer stem C to read:</i> C—Acetone will not soften plastic, but will change its color.
11	8070	[A]	<i>Change the answer stems to read:</i> A—E-glass. B—S-glass. C—G-glass.
15	8098	[B]	<i>Change the question and answer stems to read:</i> <b>8098.</b> What type of bit should be used to drill holes in Plexiglas? A—A standard twist drill. B—A specially modified twist drill. C—A dulled twist drill.
15	8100	[C]	<i>Change answer stem A to read:</i> A—Provides a method for cooling oil to be delivered to the cutting surface.
18	8123	[C]	<i>Change the question and answer stems to read:</i> <b>8123.</b> Parts fabricated from Alclad 2024-T3 aluminum sheet stock must have all A—bends made with a small radius to develop maximum strength. B—bends 90° to the grain C—scratches, kinks, tool marks, nicks, etc., held to a minimum.

Page Number	Question Number	Correct Answer	Explanation
28	8195	[B]	<p><i>Change the question and answer stems to read:</i></p> <p><b>8195.</b> Filing or grinding a weld bead is considered to be</p> <p>A—an acceptable means to achieve a smoother surface.  B—a way to bring about strength reduction in joint.  C—frequently necessary to avoid adding excessive weight to a weld joint.</p>
29	8206-2	[C]	<p><i>A new question is added to read:</i></p> <p><b>8206-2.</b> High pressure cylinders used to transport and store acetylene must</p> <p>A—be pressure tested to 3,000 PSI.  B—be green in color.  C—contain acetone.</p> <p>Acetylene is stable when stored under a pressure of less than 15 psi, but at pressures above this, it becomes dangerously unstable. Because of this instability, it is stored in steel cylinders filled with a porous material such as a mixture of asbestos and charcoal. The mixture is then saturated with acetone. The acetone absorbs approximately 25 times its own volume of acetylene, and allows the cylinder to be charged to a pressure of 250 psi without the acetylene becoming unstable.</p> <p>8206-2 [C] (AMA101) AMT-STRUC</p>
30	8214	[B]	<p><i>Change the question and answer stems to read:</i></p> <p><b>8214.</b> A reduction in anti-torque thrust will cause the</p> <p>A—tail to pivot in the opposite direction of torque rotation around the main rotor.  B—tail to pivot in the direction of torque rotation around the main rotor axis.  C—anti-torque system to become more efficient in the hover mode.</p>
41	8297	[A]	<p><i>Change the question and answer stems to read:</i></p> <p><b>8297.</b> An aircraft may be flown beyond the 100-hour inspection requirement to reach a place where the inspection can be accomplished, provided it</p> <p>A—does not exceed 10 flight hours.  B—has a special flight permit.  C—does not exceed 15 flight hours.</p>
43	8310	[A]	<p><i>Change the question to read:</i></p> <p><b>8310.</b> Aside from an external leak in the line, what will cause parking brakes to continually bleed off pressure?</p>
44	8324	[C]	<p><i>Change the question and answer stems to read:</i></p> <p><b>8324.</b> On an air valve core stem, what indicates high-pressure type?</p> <p>A—An embossed letter “NP”.  B—An embossed letter “HP”.  C—An embossed letter “H”.</p>
49	8364	[B]	<p><i>Change answer stem B to read (and in the explanation, change “logbook” to “records”):</i></p> <p>B—Correct the discrepancy and enter in the aircraft records.</p>
50	8371	[B]	<p><i>Change the correct answer to [B], and change the answer stems and explanation to read:</i></p> <p>A—weak return springs.  B—lack of fluid in the brake system.  C—oil or some foreign matter on the brake rotors and linings.</p> <p>If there is a lack of fluid in the brake system, the pedals will have to be depressed more than normal to get enough fluid into the wheel cylinders to apply the brakes. Alternatives A and C have no effect on the amount of pedal travel.</p> <p>8371 [B] (AMA068) AMT-STRUCT, Ch 6</p>

Page Number	Question Number	Correct Answer	Explanation
56	8411	[A]	<i>Change answer stem B to read:</i> B—synthetic base oil.
60	8442	[C]	<i>Change the question to read:</i> <b>8442.</b> Most variable displacement aircraft hydraulic pumps in use
63	8461-2	[B]	<i>Add a new question to read:</i> <b>8461-2.</b> Seals used with a mineral base hydraulic fluid are identified by which color code? A—Green dash. B—Blue dot or stripe. C—Yellow dot or stripe.  The material of which the seal is made, its age, and its hardness are all important when making the proper replacement. Mineral base hydraulic fluid (MIL-H-5606) should use a seal with a blue dot or stripe. 8461-2 [B] (AMA063) AMT-STRUC
63	8467	[C]	<i>Change the question and answer stem B to read:</i> <b>8467.</b> Before removing the filler cap of a pressurized hydraulic reservoir, in order to service the system, you must B—pressurize all hydraulic components in the system.
65	8483	[A]	<i>Change the answer to [A], and change answer stem C to read:</i> C—outlet of the main system pump.
66	8486	[B]	<i>Change the question, answer stems and explanation to read:</i> <b>8486.</b> How many of these seals are used with petroleum base hydraulic fluids? A—Natural rubber, Ethylene-propylene. B—Neoprene, Buna-N. C—Natural rubber, Butyl rubber.  Seals used with petroleum-base hydraulic fluid are made of synthetic rubber. Neoprene and Buna-N are forms of synthetic rubber.
67	8497	[A]	<i>Change answer stems A and B to read:</i> A—Low or high pressure compressor. B—Compressor inlet.
69	8517	[C]	<i>Change the answer to [C], and change the question and answer stems to read:</i> <b>8517.</b> Hot compressor bleed air operates the conditioned air system on some turbine aircraft, cold air supplied by the A—hot air mixing valve. B—sonic airflow control unit. C—ram air cycle cooling unit.
82	8604	[A]	<i>Change the question and answer stems to read:</i> <b>8604.</b> Aircraft temperature thermocouple leads may A—not be altered and are designed for a specific installation. B—be installed with either lead to either post of the indicator. C—be repaired using solderless connectors.

Page Number	Question Number	Correct Answer	Explanation
85	8625	[B]	<p><i>Change the question and answer stems to read:</i></p> <p><b>8625.</b> Which of the following instruments will normally have range markings?</p> <p>A—Altimeter.  B—Cylinder head temperature gauge, airspeed indicator.  C—Altimeter, airspeed indicator.</p>
86	8634	[B]	<p><i>Change the answer to [B], and change the answer stems to read:</i></p> <p>A—Aluminum or composite cases.  B—Iron or steel cases.  C—Bakelite or plastic cases.</p>
96	8707-2	[A]	<p><i>Add a new question to read:</i></p> <p><b>8707-2.</b> How many vents, arranged so that they are not likely to become plugged at the same time, must be used in multiengine fuel systems?</p> <p>A—Two.  B—Four.  C—Six.</p> <p>According to 14 CFR §23.953(b)(2), if a single fuel tank (or series of fuel tanks interconnected to function as a single tank) is used on a multi-engine airplane, the tank must have at least two vents arranged to minimize the probability of both vents becoming obstructed simultaneously.</p> <p>8707-2 [A] (AMA054) AMT-SYS, Ch 8</p>
96	8709-2	[B]	<p><i>Add a new question to read:</i></p> <p><b>8709-2.</b> How many engine driven fuel pumps per engine are required for engines requiring fuel pumps?</p> <p>A—Two engines can share one fuel pump.  B—One fuel pump for each engine.  C—Two fuel pumps for each engine.</p> <p>According to 14 CFR §23.991(a)(1)(i), for reciprocating engine installations having fuel pumps to supply fuel to the engine, at least one pump for each engine must be directly driven by the engine and must meet 14 CFR §23.955. This pump is the main pump. There must be at least one main fuel pump for each turbine engine.</p> <p>8709-2 [B] (AMA054) AMT-SYS, Ch 8</p>
96	8710-2	[C]	<p><i>Add a new question to read:</i></p> <p><b>8710-2.</b> A fuel system must be designed to prevent fuel-vapor ignition caused by</p> <p>A—over-heating.  B—back-fire.  C—lightning.</p> <p>A fuel system must be designed to prevent fuel-vapor ignition caused by lightning.</p> <p>8710-2 [C] (AMA054) AC 20-53</p>
96	8710-3	[A]	<p><i>Add a new question to read:</i></p> <p><b>8710-3.</b> What is the minimum distance allowed between a fuel tank and the fire wall separating the engine?</p> <p>A—One-half inch.  B—One inch.  C—Two inches.</p> <p>There must be at least one-half inch of clearance between the fuel tank and the firewall.</p> <p>8710-3 [A] (AMA054) 14 CFR 23.967</p>

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96	8710-4	[B]	<p><i>Add a new question to read:</i></p> <p><b>8710-4.</b> Fuel baffles are installed in tanks to prevent _____ caused by changes in the attitude of the aircraft.</p> <p>A—vapors B—surging C—starvation</p> <p>Baffles are installed in aircraft fuel tanks to prevent the fuel sloshing or surging in the tank caused by changes in attitude of the aircraft.</p> <p>8710-4 [B] (AMA054) AMT-SYS, Ch 8</p>
96	8710-5	[A]	<p><i>Add a new question to read:</i></p> <p><b>8710-5.</b> Many fuel tanks incorporate _____ valves to prevent fuel from flowing away from the boost pump or tank outlet when the aircraft is in a high “G” maneuver.</p> <p>A—flapper B—check C—dump</p> <p>Many fuel tanks incorporate flapper valves that prevent fuel in the tank from flowing away from the boost pump or tank outlet any time the aircraft is in a high “G” maneuver. These valves are normally open, but if some maneuver causes the fuel to flow away from the pump or outlet, they flap shut until the force moving the fuel no longer exists, then they automatically open.</p> <p>8710-5 [A] (AMA054) AMT-SYS, Ch 8</p>
96	8710-6	[B]	<p><i>Add a new question to read:</i></p> <p><b>8710-6.</b> Fuel heaters are used with fuel systems for turbine engines to prevent _____ in the fuel from clogging system filters.</p> <p>A—moisture B—ice crystals C—contamination</p> <p>Turbine powered aircraft incorporate fuel heaters to prevent ice crystals from forming in the fuel and clogging the fuel system filters.</p> <p>8710-6 [B] (AMA054) AMT-SYS, Ch 8</p>
96	8710-7	[C]	<p><i>Add a new question to read:</i></p> <p><b>8710-7.</b> A transducer in a fuel pressure system serves what function?</p> <p>A—Transmits an electrical signal to the transmitter for fluid pressure. B—Transmits electrical signal proportional to the fluid pressure. C—Converts fluid pressure directly through a transmitter to the indicator.</p> <p>A transducer is a device that changes energy from one form into another. A fuel pressure transducer converts fuel pressure into an electrical signal that is proportional to the fuel pressure. This signal is transmitted to the fuel pressure indicator.</p> <p>8710-7 [C] (AMA054) AMT-SYS, Ch 8</p>
98	8730	[C]	<p><i>Change the question to read (and capitalize the first word of each answer stem):</i></p> <p><b>8730.</b> As a general rule, which statement is true regarding fuel leaks?</p>
99	8738	[A]	<p><i>Change the question and answer stems to read:</i></p> <p><b>8738.</b> Which statement concerning an electronic capacitance-type fuel quantity indicating system is true?</p> <p>A—It has no moving parts in the tank. B—It has two tubes separated by an electronic field in the tank. C—It utilizes a variable capacitor to indicate the fuel tank capacity.</p>

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100	8746-2	[A]	<p><i>Add a new question to read:</i></p> <p><b>8746-2.</b> A digital fuel totalizer automatically indicates the amount of fuel used, fuel remaining, current rate of consumption, and fuel</p> <p>A—weight, aboard at takeoff.  B—remaining at the 45-minute IFR fuel reserve.  C—remaining, flight time at the current power setting.</p> <p>A fuel totalizer is a fuel quantity indicator that gives the total amount of fuel remaining on board the aircraft on one instrument. The totalizer adds the quantities of fuel in all of the tanks and gives the pilot an indication of the total number of pounds of fuel remaining.</p> <p>8746-2 [A] (AMA055) AMT-SYS</p>
105	8778	[C]	<p><i>Change the question to read:</i></p> <p><b>8778.</b> Integral fuel tanks on transport aircraft are</p>
108	8809	[B]	<p><i>Change the question to read (and capitalize the first word in each answer stem):</i></p> <p><b>8809.</b> What is required when operating two aircraft ac generators in parallel?</p>
122	8912-2	[A]	<p><i>Add a new question to read:</i></p> <p><b>8912-2.</b> Static inverters are electronic devices that change DC to AC with the</p> <p>A—use of an oscillator.  B—properties of an exclusive OR gate.  C—input from an amplifier control by integrated circuits.</p> <p>A static inverter is an electronic device that changes DC into AC. It incorporates an oscillator that changes DC into AC with the proper frequency and waveform. Then an amplifier changes the voltage to the value needed.</p> <p>8912-2 [A] (AMA041) AMT-G, Ch 4</p>
123	8917	[A]	<p><i>Change the question and answer stem A to read:</i></p> <p><b>8917.</b> An aircraft electrical circuit control relay is</p> <p>A—an electrically operated switch.</p>
124	8931	[B]	<p><i>Change the question and answer stem A to read:</i></p> <p><b>8931.</b> If the Integrated Drive Generator (IDG) scavenge oil filter is contaminated with metal, you should</p> <p>A—do an oil analysis to diagnose the problem.</p>
131	8969	[A]	<p><i>Change the question and answer stem B to read:</i></p> <p><b>8969.</b> Prior to installation of a pneumatic surface-bonded type deicer boots, on the leading edge of the wing, you should</p> <p>B—apply adhesive to the back of the deicer boot and leading edge of the wing.</p>
136	9008	[B]	<p><i>Change the question to read (and make the first word in each answer stem plural):</i></p> <p><b>9008.</b> Light refraction smoke detectors are activated when the detector</p>
138	9024	[B]	<p><i>Change the question and answer stems to read:</i></p> <p><b>9024.</b> If a fire extinguisher cartridge is removed from a discharge valve, it should be</p> <p>A—pressure checked.  B—used only on the original discharge valve assembly.  C—replaced with a new cartridge.</p>