

Page Number	Question Number	Correct Answer	Explanation
4	8010	[C]	<i>The answer stems are changed to read:</i> A— intake, ignition, compression, power, and exhaust. B— intake, compression, power, ignition, and exhaust. C— intake, compression, ignition, power, and exhaust.
5	8016	[A]	<i>The question is changed to read:</i> 8016. Which type of bearings are generally used for connecting rods and cam shafts?
7	8025	[A]	<i>Answer stems B and C are changed to read:</i> B— honing. C— quenching.
9	8039	[B]	<i>The question and answer stems are changed to read:</i> 8039. What is the purpose of installing two or more springs on each valve in an aircraft engine? A— To equalize side pressure on the valve stem. B— To eliminate valve spring vibration or surging. C— To help equalize valve face loading.
10	8046	[C]	<i>Answer stems A and B are changed to read:</i> A— 10:7. B— 10:1.

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15	8077	[C]	<p><i>The question and answer stems are changed to read:</i></p> <p>8077. If the ignition switch is moved from BOTH to either LEFT or RIGHT during an engine ground check, normal operation is usually indicated by a slight</p> <p>A— increase in manifold pressure. B— bump in propeller RPM. C— drop in torque meter pressure indication.</p>
16	8084	[A]	<p><i>Answer stems B and C are changed to read:</i></p> <p>B— Excessive engine oil pressure. C— Thermal shock of cylinders.</p>
23	8125	[B]	<p><i>The question, answer stems, reference, and correct answer are changed to read:</i></p> <p>8125. Which of the following may be used to mark turbine engine components exposed to high temperatures?</p> <p>A— Grease or wax pencil. B— Layout dye. C— Graphite lead pencil.</p> <p>(004) FAA-H-8083-32</p>
23	8126	[B]	<p><i>Answer stem C is changed to read:</i></p> <p>C— N1 is normal, but N2 is low.</p>
23	8127-1	[C]	<p><i>A new question is added to read:</i></p> <p>8127-1. Which of the following acts as a diffuser in a turbine engine and converts velocity to pressure?</p> <p>A— Impeller. B— Manifold. C— Stators.</p> <p>The stator blades act as diffusers at each stage, partially converting high velocity to pressure.</p> <p>(068) FAA-H-8083-32</p>
24	8133	[C]	<p><i>Answer stems A and B are changed to read:</i></p> <p>A— A rise in engine RPM. B— A rise in oil temperature.</p>
24	8135	[A]	<p><i>The answer stems are changed to read:</i></p> <p>A— Engine manufacturer. B— TBO does not apply to turbine engines. C— Aircraft manufacturer.</p>
24	8139	[C]	<p><i>The answer stems are changed to read:</i></p> <p>A— Aircraft manufacturer. B— Component manufacturer. C— Engine manufacturer.</p>
25	8142	[B]	<p><i>Answer stems A and C are changed to read:</i></p> <p>A— impulse, converging, and impulse-converging. C— impulse, diverging, and impulse-diverging.</p>
26	8151	[B]	<p><i>Answer stems A and C are changed to read:</i></p> <p>A— the high probability of carbon deposits. C— less exposure to solution during engine pressure wash.</p>

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29	8177	[B]	<p><i>The question, answer stems, and correct answer are changed to read:</i></p> <p>8177. Which of the following is a good indication of a malfunctioning fuel nozzle when inspecting the exhaust section of an aircraft turbine engine?</p> <p>A— Buckling of the combustion liner. B— Hotspots on the tail cone. C— Carbon build up in the exhaust.</p>
31	8193	[B]	<p><i>Answer stems A and C are changed to read:</i></p> <p>A— rotor blades. C— disc rims.</p>
33	8202	[B]	<p><i>Answer stems A and C are changed to read:</i></p> <p>A— Erosion. C— Elongation.</p>
39	8246	[B]	<p><i>Answer stems B and C are changed to read:</i></p> <p>B— 14 CFR Part 43. C— Aircraft owner's manual.</p>
40	8253	[A]	<p><i>The question and answer stems are changed to read:</i></p> <p>8253. How is the flow range of the fuel discharge nozzles installed in a fuel injected reciprocating engine indicated?</p> <p>A— By a letter stamped on the hex of the nozzle body. B— By a number stamped on the hex of the nozzle body. C— By the code located on the engine data plate.</p>
45	8283-1	[B]	<p><i>A new question is added to read:</i></p> <p>8283-1. The thermocouple leads used to measure cylinder temperature on an aircraft reciprocating engine</p> <p>A— should be cut and trimmed to fit if the lead is too long. B— are connected to the electrical wiring on one end and the cylinder on the other end. C— connected to the cylinder can only be bayonet type.</p> <p>The thermocouple leads used to measure cylinder temperature on a reciprocating engine connect to the electrical wiring on one end and the cylinder on the other end. (009) FAA-H-8083-32</p>
45	8288	[C]	<p><i>The question, answer stems, reference, and correct answer are changed to read:</i></p> <p>8288. Turbine engine EGT thermocouples are constructed of</p> <p>A— iron and constantan. B— copper and constantan. C— chromel and alumel.</p> <p>(066) FAA-H-8083-32</p>
46	8292	[A]	<p><i>The question, answer stems, reference, and correct answer are changed to read:</i></p> <p>8292. Which of the following instrument conditions is acceptable and does not require immediate correction?</p> <p>A— Case paint chipped. B— Instrument glass fogged. C— Mounting screws loose.</p> <p>(012) FAA-H-8083-32</p>

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49	8310	[C]	<p><i>The question, answer stems, reference, and correct answer are changed to read:</i></p> <p>8310. Which of the following fire detection systems are commonly used in an engine nacelle?</p> <p>A— Fire detection control unit. B— Thermocouple detector. C— Kidde continuous-loop.</p> <p>In addition to fire and overheat detection, the Kidde continuous-loop system can supply nacelle temperature data to the airplane condition monitoring function of the aircraft in-flight monitoring system (AIMS). (041) FAA-H-8083-32</p>
52	8334	[B]	<p><i>The question and answer stems are changed to read:</i></p> <p>8334. Which statement best describes the blowout type indicator disk on a fixed fire extinguishing system?</p> <p>A— When the red indicator disk is missing, it indicates the fire extinguishing system is charged and ready for use. B— When the yellow indicator disk is missing, it indicates the fire extinguishing system has been normally discharged. C— When the green indicator disk is missing, it indicates that the fire extinguishing system may have been normally discharged.</p>
55	8349	[A]	<p><i>The answer stems are changed to read:</i></p> <p>A— Double-zero sandpaper. B— Stiff bristle brushes. C— Emery cloths.</p>
58	8371	[A]	<p><i>The answer stems are changed to read:</i></p> <p>A— restore residual magnetism to the field frame. B— ensure proper operation of the capacitor. C— relieve the unit of any residual electrical energy.</p>
59	8379	[A]	<p><i>The question and answer stems are changed to read:</i></p> <p>8379. Starter brushes should be replaced when they are worn down to</p> <p>A— one-half of the original length. B— three-quarters of the original length. C— one-quarter of the original length.</p>
61	8393	[C]	<p><i>Answer stems A and B are changed to read:</i></p> <p>A— below the fuel line. B— beside the fuel line.</p>
64	8409-1	[B]	<p><i>A new question is added to read:</i></p> <p>8409-1. Aircraft wire size is determined by using a(n)</p> <p>A— ohmmeter. B— wire gauge. C— dial caliper.</p> <p>Wire size may be determined by using a wire gauge. This type of gauge measures wires ranging in size from 0 (zero) to 36. (026) FAA-H-8083-32</p>
66	8422	[A]	<p><i>Answer stem B is changed to read:</i></p> <p>B— rate of change.</p>
67	8426	[A]	<p><i>Answer stem C is changed to read:</i></p> <p>C— oil pressure.</p>

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72	8462	[A]	<i>The question is changed to read:</i> 8462. Which of the following factors has the least effect on the oil consumption of a specific engine?
72	8469	[C]	<i>The answer stems are changed to read:</i> A— oil flow to the engine will be restricted. B— oil will be bypassed back to the oil tank. C— bypass valve will open, and the oil pump will supply unfiltered oil.
74	8481	[B]	<i>Answer stem A is changed to read:</i> A— increases as the resistance offered to the flow of oil increases with more oil being returned to the pump inlet by the relief valve.
76	8497	[C]	<i>The question and answer stems are changed to read:</i> 8497. Which of the following prevents oil from entering the main accessory case when the engine is not running? A— Pressure valve. B— Hydraulic fuse. C— Check valve.
77	8503	[B]	<i>The question and answer stems are changed to read:</i> 8503. The magnetic circuit of a magneto consists of a permanent multi-pole rotating magnet. The core is made of A— hard steel. B— soft iron. C— electrical steel. The magneto magnetic circuit consists of a permanent multi-pole rotating magnet, a soft iron core, and pole shoes.
86	8561	[C]	<i>The question and answer stems are changed to read:</i> 8561. Igniter plugs used in turbine engines have a long service life because they A— have a high intensity spark. B— operate continuously with a lower spark. C— do not require continuous operation.
89	8584	[C]	<i>The question and answer stems are changed to read:</i> 8584. Defective spark plugs will cause the engine to run rough A— during run up. B— during cruise. C— at all speeds.
91	8600	[C]	<i>The question, answer stems, explanation, and reference are changed to read:</i> 8600. Advantages of dual ignition in aircraft engines include providing a backup magneto system, increasing the output power of the engine, and A— permitting the use of lower grade fuels. B— increasing the intensity of the spark at the spark plugs. C— increasing the output power of the engine. Dual ignition gives a more complete and quick combustion of the fuel, provides a backup magneto system, and increases the output power of the engine. (063) FAA-H-8083-32

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92	8602	[A]	<i>The question and answer stems are changed to read:</i> 8602. Which of the following are distinct circuits of a high tension magneto? A— Magnetic, primary, and secondary. B— Magnetic, E-gap, and P-lead. C— Primary, P-lead, and secondary.
97	8625	[C]	<i>Answer stems A and B are changed to read:</i> A— a significant lack of wear to the commutator. B— that it does not disengage until the engine reaches idle.
99	8642	[C]	<i>The question and answer stems are changed to read:</i> 8642. Prior to performing engine trimming, you should A— call the control tower to obtain current sea level barometric pressure and temperature. B— observe the reading on the aircraft outside air temperature (OAT) gauge. C— obtain a true temperature reading comparable to that of the air that enters the engine.
99	8645	[A]	<i>The question, answer stems, and the correct answer are changed to read:</i> 8645. Which of the following best describes the function of an automatic mixture control (AMC)? A— It compensates for change in the air density due to temperature and altitude. B— It compensates for the air pressure above the fuel in the float chamber. C— It compensates for the air pressure in the venturi of a float-type carburetor.
103	8668	[A]	<i>The question and answer stem A are changed to read:</i> 8668. If fuel is found running from the carburetor with the engine not running, the likely cause is that the A— float needle valve is not seated properly.
104	8679	[A]	<i>Answer stem B is changed to read:</i> B— Engine-driven fuel pump.
105	8688	[A]	<i>The question and answer stem C are changed to read:</i> 8688. When troubleshooting an engine that will not idle, what would be a probable cause? C— Manifold valve is not operating properly.
106	8692	[B]	<i>The question and answer stem C are changed to read:</i> 8692. What carburetor component limits the maximum airflow into the engine at full throttle? C— Main metering jet.
111	8728	[A]	<i>Answer stems B and C are changed to read:</i> B— Adjust the mixture control. C— Adjust throttle linkage.
111	8731	[C]	<i>Answer stem B is changed to read:</i> B— maintain constant fuel pressure.
113	8743	[B]	<i>Answer stem A is changed to read:</i> A— warm temperatures.
114	8746	[B]	<i>The question and answer stems are changed to read:</i> 8746. Where is the main fuel strainer located in the aircraft fuel system? A— At the highest point in the fuel system. B— At the lowest point in the fuel system. C— At the inlet chamber of the carburetor.

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117	8772	[A]	<i>Answer stem C is changed to read:</i> C— electrically heat the throttle valve.
120	8793-1	[C]	<i>The question is changed to read:</i> 8793-1. The pressure between the turbocharger and the throttle valve is called
120	8793-2	[B]	<i>A new question is added to read:</i> 8793-2. Which of the following is a function of the differential pressure controller? A— It limits the maximum manifold pressure that can be produced by the turbocharger at full throttle conditions. B— It controls all positions of the waste gate except at fully open position. C— It controls the position of the waste gate after the aircraft has reached its critical altitude. The differential pressure controller functions during all positions of the waste gate valve other than the fully open position, which is controlled by the density controller. (070) FAA-H-8083-32
122	8810	[B]	<i>Answer stems A and C are changed to read:</i> A— Turn off the fuel pump switches. C— Turn off the magneto switches.
123	8817	[B]	<i>The question and answer stems are changed to read:</i> 8817. Cracks in cooling fins that do not extend into the cylinder head A— should be left alone and monitored. B— may be repaired by removing the affected area and contour filing within limits. C— may be repaired by adding a stiffener.
123	8819	[B]	<i>The question and answer stems are changed to read:</i> 8819. A bent cooling fin on an aluminum cylinder head should be A— sawed off and filed smooth. B— left alone if no crack has formed. C— straightened out as much as possible without breaking.
124	8822	[A]	<i>Answer stem C is changed to read:</i> C— neutral.
129	8867	[A]	<i>The question and answer stems are changed to read:</i> 8867. Dislodged internal muffler baffles on a small reciprocating aircraft engine may cause A— excessive exhaust back pressure. B— an engine over-speed problem. C— high oil consumption.
131	8878	[A]	<i>Answer stem B is changed to read:</i> B— greater than its forward capability
131	8879	[A]	<i>The question, answer stems, explanation, and reference are changed to read:</i> 8879. Which of the following statements is true regarding thrust reverser systems? A— The reverser system must be able to withstand high temperatures, be mechanically strong, relatively light in weight, and reliable. B— Engine thrust reversers on the aircraft usually will operate independently of each other. C— Mechanical blockage system design permits a deployment position aft of the exhaust nozzle only. The reverser system must be able to withstand high temperatures, be mechanically strong, relatively light in weight, reliable, and “fail-safe.” (008) FAA-H-8083-32

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132	8886	[A]	<p><i>The question and answer stems are changed to read:</i></p> <p>8886. Ice formation on a propeller blade will</p> <p>A— produce unbalance and vibration. B— increase thrust and drag. C— cause a change in blade angle.</p>
133	8890	[C]	<p><i>The answer stems are changed to read:</i></p> <p>A— Lubricant manufacturer's instructions. B— Engine manufacturer's instructions. C— Propeller manufacturer's instructions.</p>
135	8907-1	[B]	<p><i>The answer stems, explanation, reference, and correct answer are changed to read:</i></p> <p>A— When oil pressure is decreased, the return spring and counterweights force the oil out of the servo piston. B— As oil pressure increases, the servo piston is pushed forward, and the feather spring is compressed. C— When oil pressure is increased, the return spring and counterweights force the oil out of the servo piston.</p> <p>Oil from the propeller governor feeds into the propeller shaft and to the servo piston via the oil transfer sleeve mounted on the propeller shaft. As oil pressure increases, the servo piston is pushed forward, and the feather spring is compressed. Servo piston movement is transmitted to the propeller blade collars via a system of levers. When oil pressure is decreased, the return spring and counterweights force the oil out of the servo piston and change the blade pitch to a high pitch position. An increase in oil pressure drives the blades towards low pitch.</p> <p>(053) FAA-H-8083-32</p>
136	8915	[B]	<p><i>Answer stem A is changed to read:</i></p> <p>A— engine oil.</p>
139	8941	[A]	<p><i>The answer stems and explanation are changed to read:</i></p> <p>A— fatigue failure. B— material de-bond. C— warpage.</p> <p>Metal propellers and blades are generally susceptible to fatigue failure resulting from the concentration of stresses at the bottoms of sharp nicks, cuts, and scratches. It is necessary to frequently and carefully inspect them for such defects. The inspection of steel blades may be accomplished by either visual, fluorescent penetrant, or magnetic particle inspection. Dye-penetrant inspection is a nondestructive test for defects open to the surface in parts made of any nonporous material.</p>
140	8947-1	[B]	<p><i>A new question is added to read:</i></p> <p>8947-1. Which of the following defects is cause for rejection of wood propellers?</p> <p>A— Dye-penetrant inspection failure. B— Bonding or separation of the trailing edge of the propeller blade. C— Delamination found by conducting a tap test.</p> <p>Check the trailing edge of the propeller blades for bonding, separation, or damage.</p> <p>(052) FAA-H-8083-32</p>
142	8964-1	[C]	<p><i>A new question is added to read:</i></p> <p>8964-1. When lubricating a newly overhauled steel hub propeller, you should lubricate the propeller</p> <p>A— after 10 hours of operation. B— at the next 100-hour inspection. C— after one to two hours of operation.</p> <p>New or newly overhauled propellers should be lubricated after the first one to two hours of operation, because centrifugal loads pack and redistribute grease which may result in a propeller imbalance.</p> <p>(052) FAA-H-8083-32</p>

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144	8972	[C]	<p><i>The answer stems are changed to read:</i></p> <p>A— Inspect the bolts for proper torque after every 50 hours and annual inspection. B— Install and tighten the bolts to the proper torque during installation; no inspection interval after that. C— Inspect the bolts for proper torque after the first flight and after the first 25 hours of flying.</p> <p>The hub bolts in a new wood propeller should be inspected for proper torque after the first flight and after 25 hours of flight. No definite time interval can be specified for checking bolt tightness, since this is affected by changes in the wood caused by the moisture content of the air where the airplane is flown and where it is stored.</p>
145	8982	[B]	<p><i>Answer stems B and C are changed to read:</i></p> <p>B— the propeller can only be installed in a given position. C— the front cone should be checked for bottoming against the pins.</p>
146	8988	[B]	<p><i>The answer stems and explanation are changed to read:</i></p> <p>A— fine steel wool or Scotch-Brite. B— very fine sandpaper or crocus cloth. C— soapstone or wire brush.</p> <p>When dressing out nicks and scratches from an aluminum alloy blade, the damage is first removed and the edges of the repair blended into the blade surface with very fine sandpaper or crocus cloth, making all strokes parallel to the length of the blade to prevent the possibility of leaving any horizontal scratches that could possibly cause stress concentrations.</p>
147	8995	[C]	<p><i>Answer stems A and B are changed to read:</i></p> <p>A— Blade face surface damage. B— Leading or trailing edge damage.</p>
148	8998	[C]	<p><i>The question, answer stems, and explanation are changed to read:</i></p> <p>8998. Fuel is normally supplied to an APU from the</p> <p>A— APU independent fuel tank. B— airplane's header fuel tank. C— airplane's main fuel tank.</p> <p>The fuel used by an APU is normally taken from the airplane's main fuel tank.</p>