



Update to Flight Engineer Test

Flight Engineer Test Prep
ATP-FE Prepware

July 2010

ASA-TP-FE
ASA-TW-ATP-FE

With the following changes, this text provides complete preparation for the FAA Flight Engineer Knowledge Exams. The FAA may rearrange the answer stems on your test to appear in a different order than you see in the ASA Test Prep. 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 next test change from the FAA is expected in October 2010.

Page Number	Question Number	Correct Answer	Explanation
x	Process for Taking a Knowledge Test		<p><i>The 5th paragraph is changed to read:</i></p> <p>Your test will be graded immediately upon completion. You will be allowed 10 minutes to review any questions you missed. You will see the question only; you will not see the answer choices or your selected response. This allows you to review the missed areas with an instructor prior to taking the Practical exam. After this review period you will receive your Airman Test Report, with the testing center's embossed seal, which reflects your score.</p>
xi	Testing Sites		<p><i>LaserGrade (PSI) phone number is changed to 1-800-211-2753</i></p>
xvii	Test-Taking Tips		<p><i>Item #14 is added to read:</i></p> <p>Your test will be graded immediately upon completion. You will be allowed 10 minutes to review any questions you missed. You will see the question only; you will not see the answer choices or your selected response. This allows you to review the missed areas with an instructor prior to taking the Practical exam.</p>
1-9	1102	[A]	<p><i>The answer stems are changed to read:</i></p> <p>A— Test flight. B— Revenue cargo flight. C— Passenger flight with compensation.</p>
1-28	1086	[B]	<p><i>The answer stems are changed to read:</i></p> <p>A— Discussing stock market reports during taxi. B— None. C— Confirming airplane logbook entries during climb when clear of the airport traffic area.</p>
2-19	1124	[C]	<p><i>The answer stems are changed to read:</i></p> <p>A— equivalent airspeed for compressibility. B— equivalent airspeed for nonstandard temperature and humidity. C— equivalent airspeed for the air-density variation from the standard value at sea level.</p>

Page Number	Question Number	Correct Answer	Explanation
3-10	1093	[A]	<p><i>A new question is added to read:</i></p> <p>ALL</p> <p>1093. An in-flight condition necessary for structural icing to form is</p> <p>A—visible water such as supercooled rain or cloud droplets. B—aerodynamic cooling of an airfoil to 0 degrees C. C—the temperature at the point where moisture strikes the aircraft must be 0 degrees F or colder.</p> <p>Two conditions are necessary for structural icing in flight: (1) the aircraft must be flying through visible water such as rain or cloud droplets, and (2) temperature at the point where the moisture strikes the aircraft must be 0 degrees C or colder. Aerodynamic cooling can lower temperature of an airfoil to 0 degrees C even though the ambient temperature is a few degrees warmer. (PLT274) — AC 00-6A</p> <p>Answer (B) is incorrect because while aerodynamic cooling can lower the temperature of an airfoil to the point where structural icing is a possibility, it is not a necessary condition for structural icing to form. Answer (C) is incorrect because the temperature must be 0 degrees C (not F).</p>
4-45	1832	[B]	<p><i>In the explanation, step #2, Wt. Moved Moment is changed from “-1,518.8” to “-1,528.8”</i></p>
5-14	1008	[B]	<p><i>A new question is added to read:</i></p> <p>FEX, FET</p> <p>1008. What recovery would be appropriate in the event of compressor stall?</p> <p>A—Reduce the thrust lever and then rapidly advance the thrust lever to decrease the angle of attack on the compressor blades, creating more airflow. B—Reduce the thrust lever and then slowly advance the thrust lever again to decrease the angle of attack on one or more compressor blades. C—Advance the thrust lever slowly to increase airflow and decrease the angle of attack on one or more compressor blades.</p> <p>If a compressor stall is transient and intermittent, the indication will be an intermittent “bang” as backfire and flow reversal take place. If the stall develops and becomes steady, strong vibration and a loud roar develop from the continuous flow reversal. Damage can occur immediately from a steady stall. Recovery must be accomplished by reducing throttle setting, lowering the angle of attack, and increasing airspeed. (PLT477) — The Aircraft Gas Turbine Engine and Its Operation</p>
5-22	1644	[B]	<p><i>Answer stems are changed to read:</i></p> <p>A—crudes that are ash free. B—that does not form ash deposits. C—that has had all ash removed in the refining process.</p>
5-25	1581	[A]	<p><i>Answer stems are changed to read:</i></p> <p>A—hot section burnout or metal distortion. B—compressor temperature limits from being exceeded. C—dangerous gas temperatures and velocities when accelerating to idle from injuring personnel or damaging the engine.</p>
5-29	1608	[A]	<p><i>The question, explanation, and explanation for incorrect answers are changed to read:</i></p> <p>1608. It is important to note the maximum EGT when starting a turbine engine to</p> <p>A—determine whether the engine must be inspected or removed and overhauled. B—prevent operation in excess of limits which may cause compressor burn-through or metal distortion. C—prevent dangerous temperatures and gas velocities which may cause injury to personnel and ground service equipment.</p> <p>It is important to note the maximum EGT during start to determine if operating limits are exceeded, and whether an engine must be inspected or removed and overhauled. (T24) — Aircraft Powerplants</p> <p>Answer (B) is incorrect because while it is true that proper monitoring prevents operations in excess of limits, the burner can, not the compressor, is in danger of burning or distortion. Answer (C) is incorrect because while it is important to note ground personnel's proximity to the jet exhaust, it is most important for the proper operation of the engine to monitor the EGT for an over-temperature condition during starting.</p>

Page Number	Question Number	Correct Answer	Explanation
6-9	1453	[C]	<p><i>Answer stems and explanation are changed to read:</i></p> <p>A—be able to purge any fuel tank. B—jettison fuel during emergencies. C—help maintain the aircraft's center of gravity.</p> <p>Fuel transfer capability helps maintain the aircraft's stability and CG. (T48) — Aircraft Maintenance and Repair</p>
9-6	1325	[C]	<p><i>Answer stems and explanation are changed to read:</i></p> <p>A—Refrigerant R-12 is nontoxic to the skin. B—Refrigerant R-12 changes to nitric acid if it comes in contact with water. C—Refrigerant R-12 will cause frostbite if it touches the skin.</p> <p>Refrigerant R-12 is a fluorinated hydrocarbon material; any Freon-12 dropped on the skin will result in frostbite. (S69) — JSAT</p>
10-4	1518	[C]	<p><i>Answer stems and explanation are changed to read:</i></p> <p>A—Begin application as soon as rain begins, to form a barrier between the rain and the windshield. B—Apply rain repellent first, then activate the windshield wipers to spread the repellent. C—Rain repellent should not be used to clean a windshield.</p> <p>Liquid rain repellent is carried in pressurized cans and a measured amount is dispensed each time the push-button switch is depressed. The number of times the repellent is applied to the windshield is determined by the intensity of the rain. Rain repellent should not be used on a dry windshield since the chemical itself will reduce visibility through the glass. (T34) — Aircraft Basic Science</p>
10-5	1190	[A]	<p><i>Answer stems are changed to read:</i></p> <p>A—Visibly moist air and +45°F. B—Visibly moist air and +70°F. C—Relatively dry air and +32°F.</p>
10-5	1191		<i>The question is removed.</i>
10-6	1194	[B]	<p><i>The question is changed to read:</i></p> <p>1194. What is the lowest ambient temperature that engine ice is likely to form in air clear of visible moisture?</p>
10-8	1505	[B]	<p><i>The question is changed to read:</i></p> <p>1505. Deicing fluid should be dispensed at what temperature?</p>
10-9	1051	[A]	<p><i>A new question is added to read:</i></p> <p>ALL 1051. Type 2 deicing/anti-icing fluids have a significantly</p> <p>A—longer holdover period than type 1 fluids. B—shorter holdover period than type 1 fluids. C—lower viscosity than type 1 fluids.</p> <p>Type 2 deicing/anti-icing fluids have a significantly longer holdover period than Type 1 fluids. (PLT108) — AC 120-58</p> <p>Answer (B) is incorrect because Type 2 fluids have a longer holdover period than type 1 fluids. Answer (C) is incorrect because Type 2 fluids have high to lower viscosity.</p>

Page Number	Question Number	Correct Answer	Explanation
11-9	1238	[A]	<p><i>The answer stems, answer, and explanation for incorrect answers are changed to read:</i></p> <p>A—Figure 14. B—Figure 11. C—Figure 10.</p> <p>Answer (B) is incorrect because illustration 11 means flagman directs pilot. Answer (C) is incorrect because illustration 10 means to slow down.</p>
11-9	1239	[C]	<p><i>The answer stems, answer, and explanation for incorrect answers are changed to read:</i></p> <p>A—Figure 7. B—Figure 10. C—Figure 15.</p> <p>Answer (A) is incorrect because illustration 7 indicates come ahead. Answer (B) is incorrect because illustration 10 indicates slow down.</p>
12-19	1236	[A]	<p><i>The answer stems, answer, and explanation for incorrect answers are changed to read:</i></p> <p>A—Vehicles or personnel should clear the taxiway. B—Aircraft in flight should exercise extreme caution. C—Aircraft on the ground should return to their starting point on the airport.</p> <p>Answer (B) is incorrect because this would be signaled with an alternating red and green light. Answer (C) is incorrect because this would be signaled with a flashing white light while on the ground.</p>
13-25	1285	[A]	<p><i>The answer stems are changed to read:</i></p> <p>A—34 minutes. B—42 minutes. C—46 minutes.</p>



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