TEMA: 0156 COMMERCIAL PILOT - (CH. 2) AIRCRAFT SYSTEMS

COD PREG:	PREGUNTA:	RPTA:
PREG20080243	At high altitudes, an excessively rich mixture will cause the	B
OPCION A:	engine to overheat.	
OPCION B:	fouling of spark plugs.	
OPCION C:	engine to operate smoother even though fuel consumption is increased.	
PREG20080244	Frequent inspections should be made of aircraft exhaust manifold-type heating systems to minimize the possibility of	A
OPCION A:	exhaust gases leaking into the cockpit.	
OPCION B:	a power loss due to back pressure in the exhaust system.	
OPCION C:	a cold-running engine due to the heat withdrawn by the heater.	
PREG20080246	To develop maximum power and thrust, a constant-speed propeller should be set to a blade angle that will produce a	B
OPCION A:	large angle of attack and low RPM.	
OPCION B:	small angle of attack and high RPM.	
OPCION C:	large angle of attack and high RPM.	
PREG20080247	For takeoff, the blade angle of a controllable-pitch propeller should be set at a	A
OPCION A:	small angle of attack and high RPM.	
OPCION B:	large angle of attack and low RPM.	
OPCION C:	large angle of attack and high RPM.	
PREG20080248	During preflight in cold weather, crankcase breather lines should receive special attention because they are susceptible to being clogged by	C
OPCION A:	congealed oil from the crankcase.	
OPCION B:	moisture from the outside air which has frozen.	
OPCION C:	ice from crankcase vapors that have condensed and subsequently frozen.	
PREG20080249	Which is true regarding preheating an aircraft during cold weather operations?	A
OPCION A:	The cabin area as well as the engine should be preheated.	
OPCION B:	The cabin area should not be preheated with portable heaters.	
OPCION C:	Hot air should be blown directly at the engine through the air intakes.	
PREG20080242	The basic purpose of adjusting the fuel/air mixture control at altitude is to	A
OPCION A:	decrease the fuel flow to compensate for decreased air density.	

OPCION B:	decrease the amount of fuel in the mixture to compensate for increased air density.	
OPCION C:	increase the amount of fuel in the mixture to compensate for the decrease in pressure and density of the air.	

PREG20080233	A fixed-pitch propeller is designed for best efficiency only at a given combination of	B
OPCION A:	altitude and RPM.	
OPCION B:	airspeed and RPM.	
OPCION C:	airspeed and altitude.	

PREG20080241	Unless adjusted, the fuel/air mixture becomes richer with an increase in altitude because the amount of fuel	C
OPCION A:	decreases while the volume of air decreases.	
OPCION B:	remains constant while the volume of air decreases.	
OPCION C:	remains constant while the density of air decreases.	

PREG20080231	Detonation occurs in a reciprocating aircraft engine when	C
OPCION A:	there is an explosive increase of fuel caused by too rich a fuel/air mixture.	
OPCION B:	the spark plugs receive an electrical jolt caused by a short in the wiring.	
OPCION C:	the unburned fuel/air charge in the cylinders is subjected to instantaneous combustion.	

PREG20080232	Propeller efficiency is the	A
OPCION A:	ratio of thrust horsepower to brake horsepower.	
OPCION B:	actual distance a propeller advances in one revolution.	
OPCION C:	ratio of geometric pitch to effective pitch.	

PREG20080216	Before shutdown, while at idle, the ignition key is momentarily turned OFF. The engine continues to run with no interruption; this	B
OPCION A:	is normal because the engine is usually stopped by moving the mixture to idle cut-off.	
OPCION B:	should not normally happen. Indicates a magneto not grounding in Off position	
OPCION C:	is an undesirable practice, but indicates that nothing is wrong.	

PREG20080217	Leaving the carburetor heat on while taking off	C
OPCION A:	leans the mixture for more power on takeoff.	
OPCION B:	will decrease the takeoff distance.	
OPCION C:	will increase the ground roll.	

PREG20080218	A way to detect a broken magneto primary grounding lead is to	A
OPCION A:	idle the engine and momentarily turn the ignition off.	

OPCION B:	add full power, while holding the brakes, and momentarily turn off the ignition.	
OPCION C:	run on one magneto, lean the mixture, and look for a rise in manifold pressure.	

PREG20080219	Fouling of spark plugs is more apt to occur if the aircraft	A
OPCION A:	gains altitude with no mixture adjustment.	
OPCION B:	descends from altitude with no mixture adjustment.	
OPCION C:	throttle is advanced very abruptly.	

PREG20080221	If the ground wire between the magneto and the ignition switch becomes disconnected, the engine	C
OPCION A:	will not operate on one magneto.	
OPCION B:	cannot be started with the switch in the BOTH position.	
OPCION C:	could accidentally start if the propeller is moved with fuel in the cylinder.	

PREG20080222	For internal cooling, reciprocating aircraft engines are especially dependent on	B
OPCION A:	a properly functioning cowl flap augmenter.	
OPCION B:	the circulation of lubricating oil.	
OPCION C:	the proper freon/compressor output ratio.	

PREG20080223	The pilot controls the air/fuel ratio with the	C
OPCION A:	throttle.	
OPCION B:	manifold pressure.	
OPCION C:	mixture control.	

PREG20080220	The most probable reason an engine continues to run after the ignition switch has been turned off is	C
OPCION A:	carbon deposits glowing on the spark plugs.	
OPCION B:	a magneto ground wire is in contact with the engine casing.	
OPCION C:	a broken magneto ground wire.	

PREG20080224	Which statement best describes the operating principle of a constant-speed propeller?	C
OPCION A:	As throttle setting is changed by the pilot, the prop governor causes pitch angle of the propeller blades to remain unchanged.	
OPCION B:	A high blade angle, or increased pitch, reduces the propeller drag and allows more engine power for takeoffs.	
OPCION C:	The propeller control regulates the engine RPM and in turn the propeller RPM.	

PREG20080225	In aircraft equipped with constant-speed propellers and normally-aspirated engines, which procedure should be used to avoid placing undue stress on the engine components? When power is being	B
OPCION A:	decreased, reduce the RPM before reducing the manifold pressure.	
OPCION B:	increased, increase the RPM before increasing the manifold pressure.	
OPCION C:	increased or decreased, the RPM should be adjusted before the manifold pressure.	

PREG20080226	5185-1Detonation may occur at high-power settings when	A
OPCION A:	the fuel mixture instantaneously ignites instead of burning progressively and evenly.	
OPCION B:	an excessively rich fuel mixture causes an explosive gain in power.	
OPCION C:	the fuel mixture is ignited too early by hot carbon deposits in the cylinder.	

PREG20080227	The uncontrolled firing of the fuel/air charge in advance of normal spark ignition is known as	C
OPCION A:	instantaneous combustion.	
OPCION B:	detonation.	
OPCION C:	pre-ignition.	

PREG20080228	Fuel/air ratio is the ratio between the	B
OPCION A:	volume of fuel and volume of air entering the cylinder.	
OPCION B:	weight of fuel and weight of air entering the cylinder.	
OPCION C:	weight of fuel and weight of air entering the carburetor.	

PREG20080229	The mixture control can be adjusted, which	A
OPCION A:	prevents the fuel/air combination from becoming too rich at higher altitudes.	
OPCION B:	regulates the amount of air flow through the carburetor's venturi.	
OPCION C:	prevents the fuel/air combination from becoming lean as the airplane climbs.	

PREG20080230	Which statement is true concerning the effect of the application of carburetor heat?	A
OPCION A:	It enriches the fuel/air mixture.	
OPCION B:	It leans the fuel/air mixture.	
OPCION C:	It has no effect on the fuel/air mixture.	

PREG20080238	Applying carburetor heat will	C
OPCION A:	not affect the mixture.	
OPCION B:	lean the fuel/air mixture.	
OPCION C:	enrich the fuel/air mixture.	

PREG20080237	Detonation can be caused by	C
OPCION A:	A rich mixture	
OPCION B:	low engine temperatures.	
OPCION C:	using a lower grade fuel than recommended.	

PREG20080234	The reason for variations in geometric pitch (twisting) along a propeller blade is that it	C
OPCION A:	permits a relatively constant angle of incidence along its length when in cruising flight.	
OPCION B:	prevents the portion of the blade near the hub from stalling during cruising flight.	
OPCION C:	permits a relatively constant angle of attack along its length when in cruising flight.	

PREG20080235	A detuning of engine crankshaft counterweights is a source of overtsress that may be caused by	A
OPCION A:	rapid opening and closing of the throttle.	
OPCION B:	carburetor ice forming on the throttle valve.	
OPCION C:	operating with an excessively rich fuel/air mixture.	

PREG20080239	An abnormally high engine oil temperature indication may be caused by	B
OPCION A:	a defective bearing.	
OPCION B:	the oil level being too low.	
OPCION C:	operating with an excessively rich mixture.	

PREG20080236	The best power mixture is that fuel/air ratio at which	B
OPCION A:	cylinder head temperatures are the coolest.	
OPCION B:	the most power can be obtained for any given throttle setting.	
OPCION C:	a given power can be obtained with the highest manifold pressure or throttle setting.	

PREG20080240	What will occur if no leaning is made with the mixture control as flight altitude increases?	C
OPCION A:	The volume of air entering the carburetor decreases and the amount of fuel decreases.	
OPCION B:	The density of air entering the carburetor decreases and the amount of fuel increases.	
OPCION C:	The density of air entering the carburetor decreases and the amount of fuel remains constant.	

PREG20080245	To establish a climb after takeoff in an aircraft equipped with a constant-speed propeller, the output of the engine is reduced to climb power by decreasing manifold pressure and	C
OPCION A:	increasing RPM by decreasing propeller blade angle.	

OPCION B:	decreasing RPM by decreasing propeller blade angle.
OPCION C:	decreasing RPM by increasing propeller blade angle.