T E M A: 0156 COMMERCIAL PILOT - (CH. 2) AIRCRAFT SYSTEMS

COD_PREG:	P R E G U N T A:	RPTA:
5169	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.	
5170	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.	
5171	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.	
5172	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.	
5173	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.	
5174	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.	
5175	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.	
5176	The pilot controls the air/fuel ratio with the	C
OPCION A:	throttle.	
OPCION B:	manifold pressure.	
OPCION C:	mixture control.	
5183	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.	
5184	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.	

5185 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.

5186 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.

5187 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.

5188 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.

5189 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.

5190 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.

5235 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.

5236 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.

5237 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.

5271 A detuning of engine crankshaft counterweights is a source of overtsress that may be caised 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.

5298 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.

5299 Detonation can be caused by — C
OPCION A: A rich mixture
OPCION B: low engine temperatures.
OPCION C: using a higher grade fuel than recommended.

5606 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.

5607 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.

5608 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.

5609 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.

5610 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.

5611 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.

5653 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.

5654 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.

5667 To develop maximum power and thrust, aconstant-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.

5668 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.

5766 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.

5767	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.	