TEMA: 0639 COM-RTC - Aircraft Systems - Chap. 2

COD PREG:	PREGUNTA:	RPTA:
PREG20098422	The lift differential that exists between the advancing blade and the retreating blade is known as	C
OPCION A:	Coriolis effect.	
OPCION B:	translational lift.	
OPCION C:	dissymmetry of lift.	
PREG20098423	Most helicopters, by design tend to drift to the right when hovering in a no-wind condition. This statement is	C
OPCION A:	false;helicopters have no tendency to drift, but will rotate in that direction.	
OPCION B:	true; the mast or cyclic pitch system of most helicopters is rigged forward, this with gyroscopic precession will overcome the tendency.	
OPCION C:	true; the mast or cyclic pitch system of most helicopters is rigged to the left to overcome this tendency.	
PREG20098414	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.	
PREG20098424	When a rotorcraft transitions from straight-and-level flight into a 30° bank while maintaining a constant altitude, the lift force must	A
OPCION A:	increase and the load factor will increase.	
OPCION B:	increase and the load factor will decrease.	
OPCION C:	remain constant and the load factor will decrease.	
PREG20098413	Fuel/air ratio is the ratio betweeen 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	
PREG20098411	Detonation can be caused by	C
OPCION A:	A rich mixture	
OPCION B:	low engine temperatures	
OPCION C:	using a lower grade of fuel than recommended	
PREG20098402	For gyroplanes with constant-speed propellers, the first indication of carburetor icing is usually	B
OPCION A:	A decrease in engine RPM	
OPCION B:	A decrease in manifold pressure	

OPCION C:	Engine roughness followed by a decrease in engine RPM	

PREG20098403	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 nothing is wrong.	

PREG20098404	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.	

PREG20098405	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.	

PREG20098406	Fouling of spark plugs is more apt to occcur 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 advance very abruptly	

PREG20098407	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	

PREG20098452	During the flare portion of a power-off landing, the rotor RPM tends to	B
OPCION A:	remain constant.	
OPCION B:	increase initially.	
OPCION C:	decrease initially.	

PREG20098409	The pilot controls the air/fuel ratio with the	C
OPCION A:	throttle	
OPCION B:	manifold pressure	
OPCION C:	mixture control	

PREG20098410	5185-1 Detonation may occur at high-power settings when	A
OPCION A:	the fuel mixture ignites instantaneously 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.	

PREG20098412	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.	

PREG20098425	Cyclic control pressure is applied during flight that results in a maximum increase in main rotor blade pitch angle at the "three o'clock" position. Which way will the rotor disc tilt?	A
OPCION A:	Aft.	
OPCION B:	Left.	
OPCION C:	Right.	

PREG20098408	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.	

PREG20098427	The primary purpose of the tail rotor system is to	C
OPCION A:	assist in making coordinated turns.	
OPCION B:	maintain heading during forward flight.	
OPCION C:	counteract the torque effect of the main rotor.	

PREG20098441	A high-frecuency vibration that suddenly occurs during flight could be an indication of a defective	A
OPCION A:	transmission.	
OPCION B:	freewheeling unit.	
OPCION C:	main rotor system.	

PREG20098442	Ground resonance is less likely to occur with helicopters that are not equipped with	B
OPCION A:	rigid rotor systems	
OPCION B:	fully articulated rotor systems	
OPCION C:	semi-rigid rotor systems	

PREG20098443	The proper action to initiate a quick stop is to apply	C
OPCION A:	forward cyclic, while raising the collective and applying right antitorque pedal.	
OPCION B:	aft cyclic, while raising the collective and applying left antitorque pedal.	
OPCION C:	aft cyclic, while lowering the collective and applying right antitorque pedal.	

PREG20098444	The best power mixture is that fuel/air ratio at which	B
OPCION A:	cylinder heat 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.	

PREG20098445	Detonation can be caused by	A
OPCION A:	too lean a mixture.	
OPCION B:	low engine temperatures.	
OPCION C:	using higher grade fuel than recommended.	

PREG20098447	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.	

PREG20098448	What will occur if no leaning is made with the mixture control as the flight altitude increase?	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.	

PREG20098449	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.	

PREG20098494	During a pinnacle approach under conditions of high wind and turbulence, the pilot should make a	C
OPCION A:	shallow approach, maintaining a constant line of descent with cyclic applications.	

OPCION B:	normal approach, maintaining a slower-than-normal rate of descent with cyclic applications.	
OPCION C:	steeper-than-normal approach maintaining the desired angle of descent with collective applications.	

PREG20098493	When conducting a confined area-type operation, the primary purpose of the high reconnaissance is to determine the	B
OPCION A:	type of approach to be made.	
OPCION B:	suitability of the area for landing.	
OPCION C:	height of the obstructions surrounding the area.	

PREG20098492	Which is true concerning a running takeoff?	C
OPCION A:	If a helicopter cannot be lifted vertically, a running takeoff should be made.	
OPCION B:	One advantage of a running takeoff is that the additional airspeed can be converted quickly to altitudfe.	
OPCION C:	A running takeoff may be possible when gross weight or density altitude prevents a sustained hover at normal hovering altitude.	

PREG20098491	Normal RPM should be maintained during a running landing primarily to ensure	A
OPCION A:	adequate directional control until the helicopter stops.	
OPCION B:	that sufficient lift is available should an emergency develop.	
OPCION C:	longitudinal and lateral control, especially if the helicopter is heavily loaded or high density altitude conditions exist.	

PREG20098481	When making a slope landing, the cyclic pitch control should be used to	B
OPCION A:	lower the downslope skid to the ground.	
OPCION B:	hold the upslope skid against the slope.	
OPCION C:	place the rotor disc parallel to the slope.	

PREG20098482	Takeoff from a slope is normally accomplished by	C
OPCION A:	making a downslope running takeoff if the surface is smooth.	
OPCION B:	simultaneously applying collective pitch and downslope cyclic control.	
OPCION C:	bringing the helicopter to a level attitude before completely leaving the ground.	

PREG20098483	What is the procedure for a slope landing?	C
OPCION A:	Use maximum RPM and maximum manifold pressure.	
OPCION B:	If the slope is 10° or less, the landing should be made perpendicular to the slope.	
OPCION C:	When parallel to the slope, slowly lower the upslope skid to the ground prior to lowering the downslope skid.	

PREG20098484	You are hovering during calm wind conditions and decide to make a right-pedal turn. In most helicopters equipped with reciprocating engines, the engine RPM will tend to	A
OPCION A:	increase.	
OPCION B:	decrease.	
OPCION C:	remain unaffected.	

PREG20098479	Using left pedal to assist a left turn during an autorotative descent will probably cause the rotor RPM to	B
OPCION A:	increase and the airspeed to decrease.	
OPCION B:	decrease and the aircraft nose to pitch down.	
OPCION C:	increase and the aircraft nose to pitch down.	

PREG20098485	During calm wind conditions, in most helicopters, which of these flight operations would require the most power?	A
OPCION A:	A left-pedal turn.	
OPCION B:	A right-pedal turn.	
OPCION C:	Hovering in ground effect.	

PREG20098487	When making an autorotation to touchdown, what action is most appropriate?	B
OPCION A:	A slightly nose-high attitude at touchdown is the proper procedure.	
OPCION B:	The skids should be in a longitudinally level attitude at touchdown.	
OPCION C:	Aft cyclic application after touchdown is desirable to help decrease ground run.	

PREG20098488	During the entry into a quick sstop, how should the collective pitch control be used? It should be	A
OPCION A:	lowered as necessary to prevent ballooning.	
OPCION B:	raised as necessary to prevent a rotor overspeed.	
OPCION C:	raised as necessary to prevent a loss of altitude.	

PREG20098489	During a normal approach to a hover, the collective pitch control is used primarily to	C
OPCION A:	maintain RPM	
OPCION B:	control the rate of closure.	
OPCION C:	control the angle of descent.	

PREG20098490	During a normal approach to a hover, the cyclic pitch is used primarily to	B
OPCION A:	maintain heading.	
OPCION B:	control rate of closure.	
OPCION C:	control angle of descent.	

PREG20098486	If complete power failure should occur while cruising at altitude, the pilot should	B
OPCION A:	partially lower the collective pitch, close the throttle, then completely lower the collective pitch.	
OPCION B:	lower the collective pitch as necessary to maintain proper rotor RPM, and apply right pedal to correct for yaw.	
OPCION C:	close the throttle, lower the collective pitch to the full-down position, apply left pedal to correct yaw, and establish a normal power-off glide.	

PREG20098453	Which would produce the slowest rotor RPM?	C
OPCION A:	A vertical descent with power.	
OPCION B:	A vertical descent without power.	
OPCION C:	Pushing over after a steep climb.	

PREG20098446	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.	

PREG20098451	Frecuent 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	

PREG20098415	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	

PREG20098416	Coning is caused by the combined forces of	B
OPCION A:	drag, weight, and translational lift.	
OPCION B:	lift and centrifugal force.	
OPCION C:	flapping and centrifugal force.	

PREG20098417	The forward speed of a rotorcraft is restricted primarily by	A
OPCION A:	dissymmetry of lift.	
OPCION B:	transverse flow effect.	
OPCION C:	high-frecuency vibrations.	

PREG20098418	When hovering, a helicopter tends to move in the direction of tail rotor thrust. This statement is	B

OPCION A:	true; the movement is called transverse tendency.	
OPCION B:	true; the movement is called translating tendency.	
OPCION C:	false; the movement is opposite the direction of tail rotor thrust, and is called translating tendency.	

PREG20098419	The purpose of lead-lag (drag) hinges in a three-bladed, fully articulated helicopter rotor system is to compensate for	A
OPCION A:	Coriolis effect.	
OPCION B:	dissymmetry of lift.	
OPCION C:	blade flapping tendency.	

PREG20098420	What happens to the helicopter as it experiences translating tendency?	C
OPCION A:	It tends to dip slightly to the right as the helicopter approaches approximately 15 knots in takeoff.	
OPCION B:	It gains increased rotor efficiency as air over the rotor system reaches approximately 15 knots.	
OPCION C:	It moves in the direction of the tail rotor thrust.	

PREG20098421	The unequal lift across the rotor disc that occurs in horizontal flight as a result of the difference in velocity of the air over the advancing half of the disc area is known as	C
OPCION A:	coning.	
OPCION B:	disc loading.	
OPCION C:	dissymmetry of lift.	

PREG20098450	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.	

PREG20098426	Cyclic control pressure is applied during flight that results in a maximum decrease in pitch angle of the rotor blades at the "12 o'clock" position. Which way will the rotor disc tilt?	B
OPCION A:	Aft.	
OPCION B:	Left.	
OPCION C:	Right.	

PREG20098439	Abnormal helicopter vibrations in the low-frecuency range are associated with which system or component?	B
OPCION A:	Tail rotor.	
OPCION B:	Main rotor.	
OPCION C:	Transmission.	

PREG20098440	Helicopter low-frecuency vibrations are always associated with the	A
OPCION A:	main rotor.	
OPCION B:	tail rotor.	
OPCION C:	transmission.	

PREG20098437	A medium-frecuency vibration that suddenly occurs during flight could be indicative of a defective	B
OPCION A:	main rotor system.	
OPCION B:	tail rotor system.	
OPCION C:	transmission system.	

PREG20098428	Can the tail rotor produce thrust to the left?	C
OPCION A:	No; the right thrust can only be reduced, causing tail movement to the left.	
OPCION B:	Yes; primarily so that hovering turns can be accomplished to the right.	
OPCION C:	Yes; primarily to counteract the drag of the transmission during autorotation.	

PREG20098429	The main rotor blades of a fully-articulated rotor system can	B
OPCION A:	flap and feather collectively.	
OPCION B:	flap, drag, and feather independently.	
OPCION C:	feather independently, but cannot flap or drag.	

PREG20098430	A reciprocating engine in a helicopter is more likely to stop due to in-flight carburetor icing than will the same type engine in an airplane. This statement	B
OPCION A:	has no basis in fact. The same type engine will run equally well in either aircraft.	
OPCION B:	is true. The freewheeling unit will not allow windmilling (flywheel) effect to be exerted on a helicopter engine.	
OPCION C:	is false. The clutch will immediately release the load from the helicopter engine under engine malfunctioning conditions.	

PREG20098438	In most helicopters, medium-frecuency vibrations indicate a defective	C
OPCION A:	engine.	
OPCION B:	main rotor system.	
OPCION C:	tail rotor system.	

PREG20098431	What is the primary purpose of the clutch?	A
OPCION A:	It allows the engine to be started without driving the main rotor system.	
OPCION B:	It provides disengagement of the engine from the rotor system for autorotation.	
OPCION C:	It transmits engine power to the main rotor, tail rotor, generator/alternator, and other accesories.	

PREG20098433	The main rotor blades of a semirigid rotor system can	A
OPCION A:	flap together as a unit.	
OPCION B:	flap, drag, and feather independently.	
OPCION C:	feather independently, but cannot flap or drag.	

PREG20098434	Rotorcraft climb performance is most adversely affected by	C
OPCION A:	higher than standard temperature and low relative humidity.	
OPCION B:	lower than standard temperature and high relative humidity.	
OPCION C:	higher than standard temperature and high relative humidity.	

PREG20098435	The most unfavorable combination of conditions for rotorcraft performance is	B
OPCION A:	low density altitude, low gross weight, and calm wind.	
OPCION B:	high density altitude, high gross weight, and calm wind.	
OPCION C:	high density altitude, high gross weight, and strong wind.	

PREG20098436	How does high density altitude affect rotorcraft performance?	A
OPCION A:	Engine and rotor efficiency is reduced.	
OPCION B:	Engine and rotor efficiency is increased.	
OPCION C:	It increases rotor drag, which requires more power for normal flight.	

PREG20098432	What is the primary purpose of the freewheeling unit?	C
OPCION A:	It allows the engine to be started without driving the main rotor system.	
OPCION B:	It provides speed reduction between the engine, main rotor system, and tail rotor system.	
OPCION C:	It provides disengagement of the engine from the rotor system for autorotation purposes	

PREG20098476	A pilot is hovering during calm wind conditions. The greatest amount of engine power will be required when	B
OPCION A:	ground effect exists.	
OPCION B:	making a left-pedal turn.	
OPCION C:	making a right-pedal turn.	

PREG20098467	Which is true with respect to recovering from an accidental settling with power situation?	C
OPCION A:	Antitorque pedals should not be utilized during the recovery.	
OPCION B:	Recovery can be accomplished by increasing rotor RPM, reducing forward airspeed, and minimizing maneuvering.	
OPCION C:	Since the inboard portions of the main rotor blades are stalled, cyclic control effectiveness will be reduced during the initial portion of the recovery.	

PREG20098468	When operating at high forward speed, retreating blade stall is more likely to occur under conditions of	A
OPCION A:	low gross weight, high density altitude, and smooth air.	
OPCION B:	high gross weight, low density altitude, and smooth air.	
OPCION C:	high gross weight, high density altitude, and turbulent air.	

PREG20098469	What are the major indications of an incipient retreating blade stall situation, in order of occurrence?	A
OPCION A:	Low-frecuency vibration, pitchup of the nose, and a roll in the direction of the retreating blade	
OPCION B:	Slow pitchup of the nose, high-frecuency vibration, and a tendency for the helicopter to roll.	
OPCION C:	Slow pitchup of the nose, tendency for the helicopter to roll, followed by a medium-frecuency vibration.	

PREG20098470	How should a pilot react at the onset of retreating blade stall?	B
OPCION A:	Reduce collective pitch, rotor RPM, and forward airspeed.	
OPCION B:	Reduce collective pitch, increase rotor RPM, and reduce forward airspeed.	
OPCION C:	Increase collective pitch, reduce rotor RPM, and reduce forward airspeed.	

PREG20098471	The most power will be required to hover over which surface?	A
OPCION A:	High grass.	
OPCION B:	Concrete ramp.	
OPCION C:	Rough/uneven ground.	

PREG20098473	To taxi on the surface in a safe and efficient manner, helicopter pilots should use the	B
OPCION A:	cyclic pitch to control starting, taxi speed, and stopping.	
OPCION B:	collective pitch to control starting, taxi speed, and stopping.	
OPCION C:	antitorque pedals to correct drift during crosswind conditions.	

PREG20098474	During surface taxiing, the cyclic pitch stick is used to control	B
OPCION A:	heading.	
OPCION B:	ground track.	
OPCION C:	forward movement.	

PREG20098475	To taxi on the surface in a safe and efficient manner, one should use the cyclic pitch to	C
OPCION A:	start and stop aircraft movement.	
OPCION B:	maintain heading during crosswind conditions.	
OPCION C:	correct for drift during crosswind conditions.	

PREG20098466	Under which situation is accidental settling with power likely to occur?	A
OPCION A:	A steep approach in which the airspeed is permitted to drop to nearly zero.	
OPCION B:	A shallow approach in which airspeed is permitted to drop below 10 MPH	
OPCION C:	Hovering in ground effect during calm wind, high density altitude conditions.	

PREG20098472	Which flight technique is recommended for use during hot weather?	B
OPCION A:	During takeoff, accelerate quickly into forward flight.	
OPCION B:	During takeoff, accelerate slowly into forward flight.	
OPCION C:	Use minimum allowable RPM and maximum allowable manifold pressure during all phases of flight.	

PREG20098465	The addition of power in a settling with power situation produces an	B
OPCION A:	increase in airspeed.	
OPCION B:	even greater rate of descent.	
OPCION C:	increase in cyclic control effectiveness.	

PREG20098463	During a near-vertical power approach into a confined area with the airspeed near zero, what hazardous condition may develop?	B
OPCION A:	Ground resonance.	
OPCION B:	Settling with power.	
OPCION C:	Blade stall vibration.	

PREG20098477	Which statement is true about an autorotative descent?	A
OPCION A:	Generally, only the cyclic control is used to make turns.	
OPCION B:	The pilot should use the collective pitch control to control the rate of descent.	
OPCION C:	The rotor RPM will tend to decrease if a right turn is made with a heavily loaded helicopter.	

PREG20098456	During level flight, if the manifold pressure is high and the RPM is low, what initial corrective action should be made?	C
OPCION A:	Decrease the throttle.	
OPCION B:	Increase the throttle.	
OPCION C:	Lower the collective pitch.	

PREG20098457	When operating a helicopter in conditions favorable for carburetor icing, the carburetor heat should be	B
OPCION A:	adjusted to keep the carburetor air temperature gauge indicating in the green arc at all times.	
OPCION B:	OFF for takeoffs, adjusted to keep the carburetor air temperature gauge indicating in the green arc at all other times.	

OPCION C:	OFF during takeoffs, approaches, and landings; adjusted to keep the carburetor air temperature gauge indicating in the green arc at all other times.	

PREG20098458	As altitude increases, the Vne of a helicopter will	B
OPCION A:	increase.	
OPCION B:	decrease.	
OPCION C:	remain the same.	

PREG20098455	During climbing flight, the manifold pressure is low and the RPM is high. What initial corrective action should be taken?	C
OPCION A:	Increase the throttle.	
OPCION B:	Decrease the throttle.	
OPCION C:	Raise the collective pitch.	

PREG20098459	The anti-torque system fails during cruising flight and a powered approach landing is commenced. If the helicopter yaws to the right just prior to touchdown, what could the pilot do to help swing the nose to the left?	B
OPCION A:	Increase the throttle.	
OPCION B:	Decrease the throttle.	
OPCION C:	Increase collective pitch.	

PREG20098460	If anti-torque failure occurred during cruising flight, what could be done to help straighten out a left yaw prior to touchdown?	C
OPCION A:	A normal running landing should be made.	
OPCION B:	Make a running landing using partial power and left cyclic.	
OPCION C:	Apply variable throttle to help swing the nose to the right just prior to touchdown.	

PREG20098461	Should a helicopter pilot ever be concerned about ground resonance during takeoff?	B
OPCION A:	No; ground resonance occurs only during an autorrotative touchdown.	
OPCION B:	Yes; although it is more likely to occur on landing, it can occur during takeoff.	
OPCION C:	Yes, but only during slope takeoffs.	

PREG20098462	An excessively steep approach angle and abnormally slow closure rate should be avoided during an approach to a hover, primarily because	C
OPCION A:	the airspeed indicator would be unreliable.	
OPCION B:	a go-around would be very difficult to accomplish.	
OPCION C:	settling with power could develop, particularly during the termination.	

PREG20098464	Which procedure will result in recovery from settling with power?	C
OPCION A:	Increase collective pitch and power.	

OPCION B:	Maintain constant collective pitch and increase throttle.	
OPCION C:	Increase forward speed and partially lower colective pitch.	

PREG20098478	Using right pedal to assist a right turn during an autorotative descent will probably result in what actions?	C
OPCION A:	A decrease in rotor RPM, pitch up of the nose, decrease in sink rate, and increase in indicated airspeed.	
OPCION B:	An increase in rotor RPM, pitch up of the nose, decrease in sink rate, and increase in indicated airspeed.	
OPCION C:	An increase in rotor RPM, pitch down of the nose, increase in sink rate, and decrease in indicated airspeed.	

PREG20098501	During the transition from pre-rotation to flight, rotor blades change pith	B
OPCION A:	Simultaneously to the same angle of incidence.	
OPCION B:	Simultaneously but to different angles of incidence.	
OPCION C:	To the same degree at the same point in the cycle or rotation.	

PREG20098480	When planning slope operations, only slopes of 5° gradient or less should be considered, primarily because	C
OPCION A:	ground effect is lost on slopes of steeper gradient.	
OPCION B:	downwash turbulence is more severe on slopes of steeper gradient.	
OPCION C:	most helicopter are not designed for operations on slopes of steeper gradients.	

PREG20098495	What type approach should be made to a pinacle under conditions of relatively high wind and turbulence?	B
OPCION A:	A normal approach.	
OPCION B:	A steeper-than-normal approach.	
OPCION C:	A shallower-than-normal approach.	

PREG20098496	If turbulence and downdrafts are expected during a pinnacle approach to a rooftop heliport, plan to make a	A
OPCION A:	steeper-than-normal approach.	
OPCION B:	normal approach, maintaining a lower-than-normal airspeed.	
OPCION C:	shallow approach, maintaining a higher-than-normal airspeed.	

PREG20098497	If ground resonance is experienced during rotor spin-up, what action should you take?	C
OPCION A:	Taxi to a smoooth area	
OPCION B:	Make normal takeoff immediately	
OPCION C:	Close the throttle and slowly raise the spin-up lever	

PREG20098498	The principal factor limiting the never-exceed speed (Vne) of a gyroplane is	C

OPCION A:	turbulence and altitude.	
OPCION B:	blade-tip speed, which must remain below the speed of sound.	
OPCION C:	lack of sufficient cyclic stick control to compensate for dissymmetry of lift or retreating blade stall, depending on which occurs first.	

PREG20098499	Why should gyroplane operations within the cross-hatched portion of a Height vs. Velocity chart be avoided?	B
OPCION A:	The rotor RPM may build excessively high if it is necessary to flare at such low altitudes.	
OPCION B:	Sufficient airspeed may not be available to ensure a safe landing in case of an engine failure.	
OPCION C:	Turbulence near the surface can dephase the blade dampers causing geometric unbalanced conditions on the rotor system.	

PREG20098500	The principal reason the shaded area of a Height vs. Velocity chart should be avoided is	C
OPCION A:	rotor RPM may decay before ground contact is made if an engine failure should occur.	
OPCION B:	rotor RPM may build excessively high if it is necessary to flare at such low altitudes.	
OPCION C:	insufficient airspeed would be available to ensure a safe landing in case of an engine failure.	

PREG20098454	If the RPM is low and the manifold pressure is high, what initial corrective action should be taken?	B
OPCION A:	Increase the throttle.	
OPCION B:	Lower the collective pitch.	
OPCION C:	Raise the collective pitch.	

PREG20098502	With respect to vortex circulation, which is true?	C
OPCION A:	Helicopters generate downwash turbulence, not vortex circulation.	
OPCION B:	The vortex strength is greatest when the generating aircraft is flying fast.	
OPCION C:	Vortex circulation generated by helicopters in forward flight trail behind in a manner similar to wingtip vortices generated by airplanes.	

PREG20098503	Which is true with respect to vortex circulation?	B
OPCION A:	Helicopters generate downwash turbulence only, not vortex circulation.	
OPCION B:	The vortex strength is greatest when the generating aircraft is heavy, clean, and slow.	
OPCION C:	When vortex circulation sinks into ground effect, it tends to dissipate rapidly and offer little danger.	