Question block created by wizard

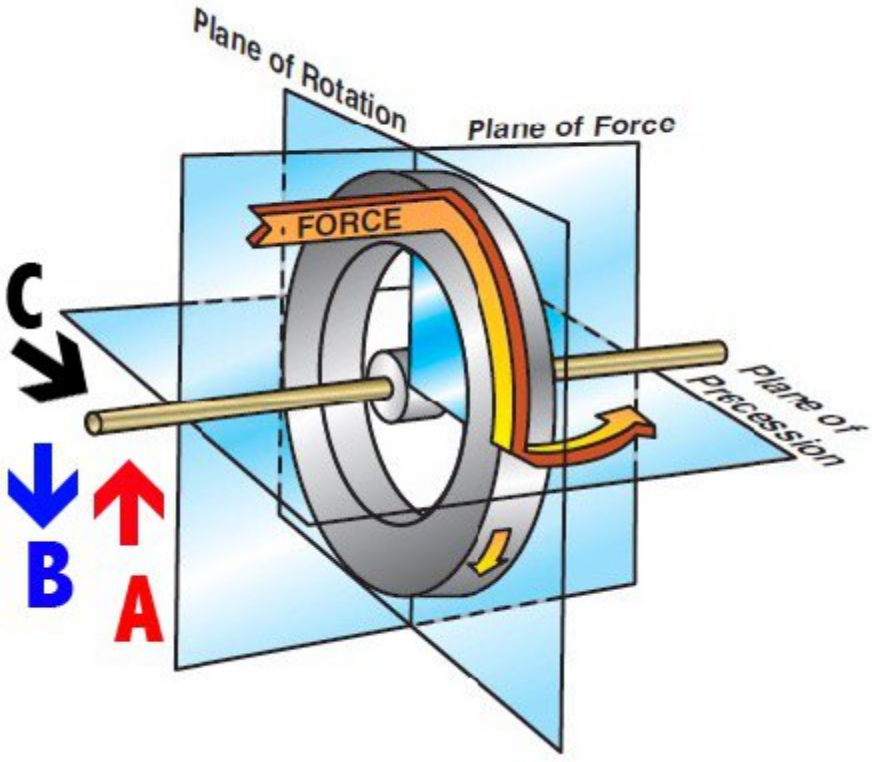
1. A gain in lift when hovering near the ground is known as:

- (a) Ground effect

o (b) Translational lift
o (c) Corriolis effect

If choice a is selected set score to 1.

2. In the figure a spinning gyroscope is shown. In which direction must you push to achieve the illustrated reaction in the plane of procession of the gyroscope?

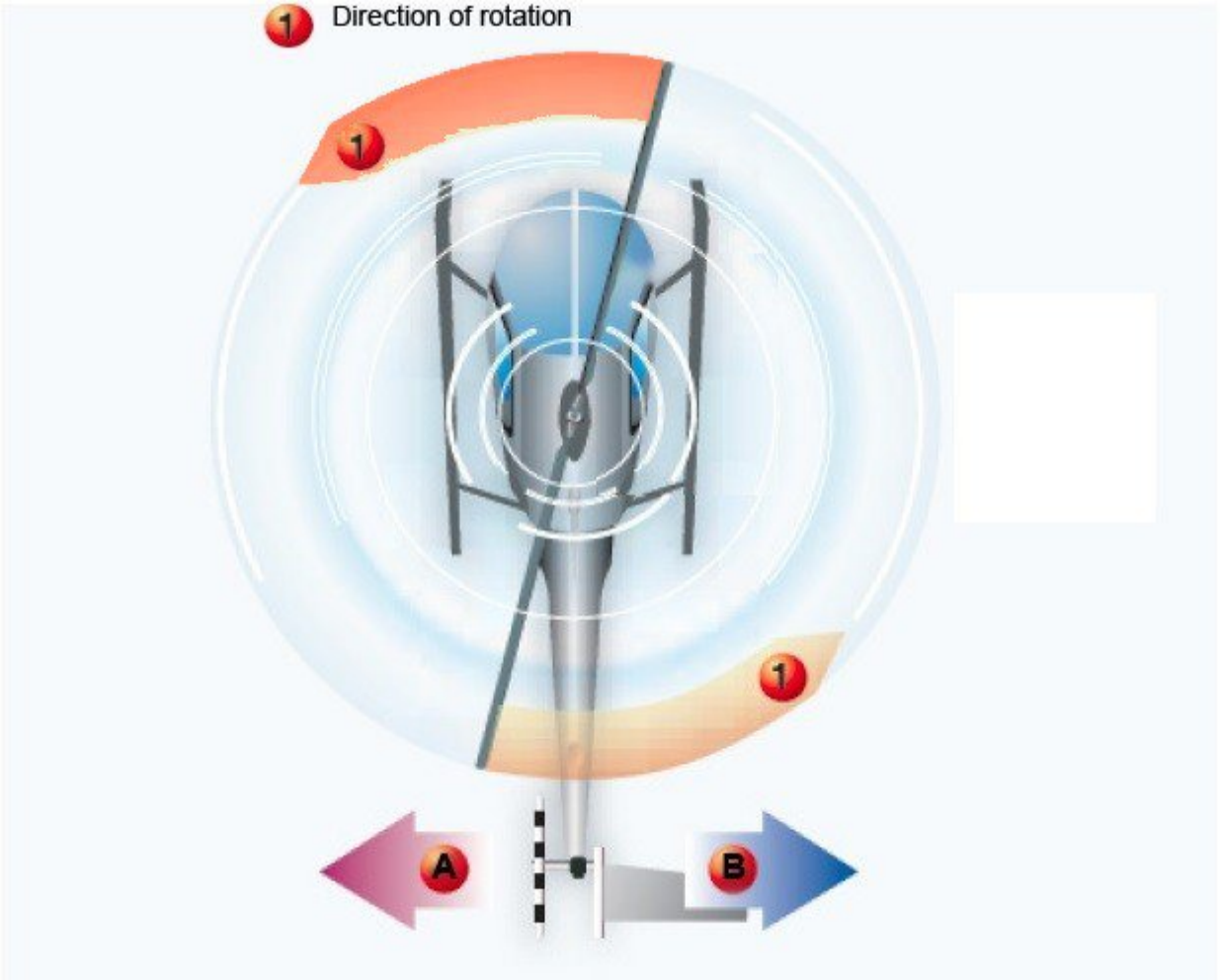


- (a) Up (Force A)

o (b) Down (Force B)
o (c) Right (Force C)

If choice a is selected set score to 1.

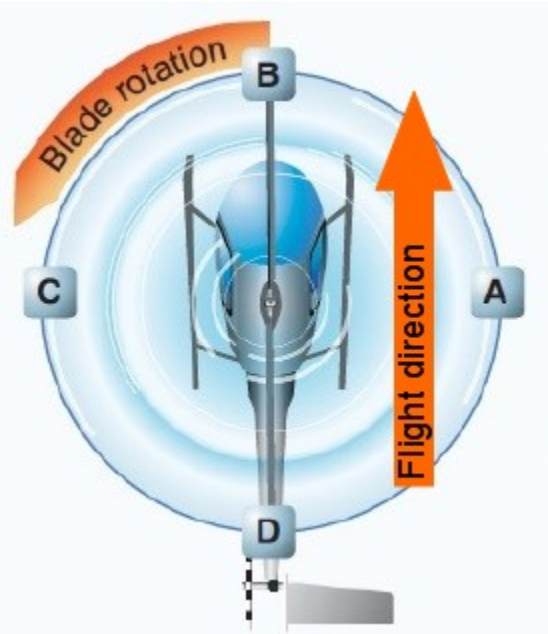
3. On a helictopter in a hover flight as seen in the figure, with the main rotor rotating counter-clockwise, the tail rotor thrust will react:



- (a) Tail to the left (A)
- (b) Tail to the right (B)
- (c) No tail reaction in hover flight.

If choice b is selected set score to 1.

4. In the figure, in which positions will the rotor blade have the largest angle of attack due to dissymetry of lift?

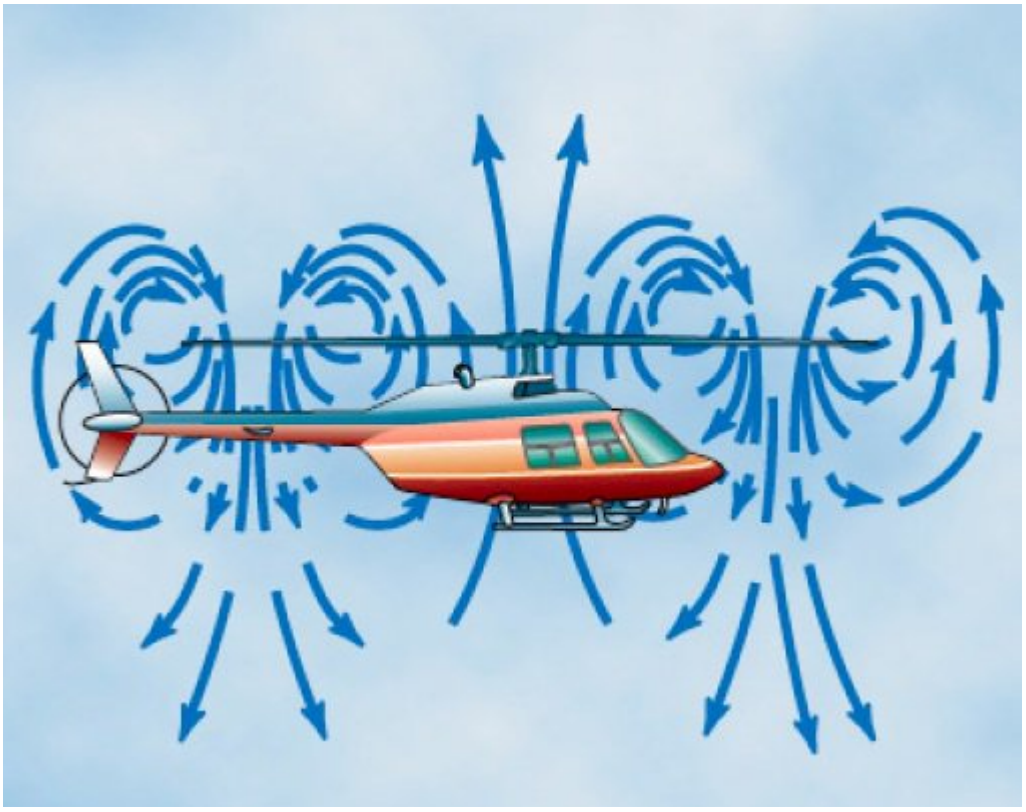


- (a) Position B and D
- (b) Position A

- (c) Position C

If choice c is selected set score to 1.

5. Which condition is illustated?



- o (a) Hover flight.
- o (b) Flying in ground effect.
- • (c) Vortex ring state (settling with power).

If choice c is selected set score to 1.

6. What is the pilots first reaction when the engine fails?

- o (a) Increase the collective pitch to increase the rotor RPM.
- o (b) Pitch the aircraft forward to maintain airspeed.
- • (c) Decrease the collective pitch to maintain rotor RPM.

If choice c is selected set score to 1.

7. A helicopter hovering in ground effect will have?

- o (a) More drag and needs more engine power.
- • (b) More lift and needs less engine power.
- o (c) A higher rotor speed and needs less engine power.

If choice b is selected set score to 1.

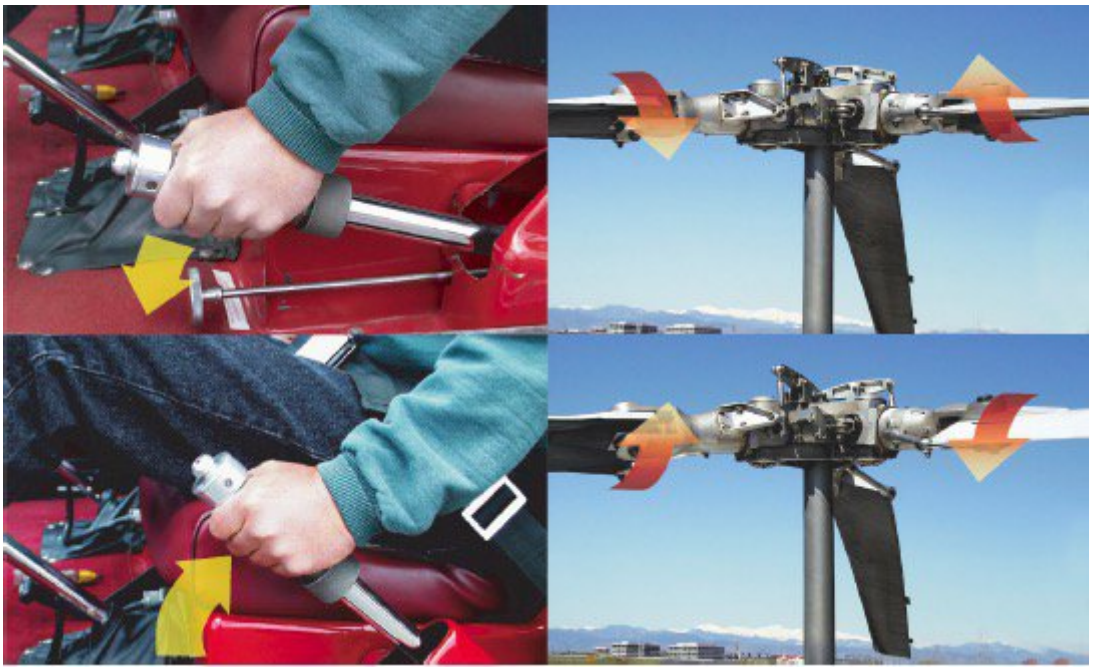
8. Cyclic control inputs are sent to the main rotor:

- (a) at the point of the desired reaction
- (b) 90 degrees after the desired reaction

- (c) 90 degrees before the desired reaction

If choice c is selected set score to 1.

9. Which flight control system is illustrated in the figure?



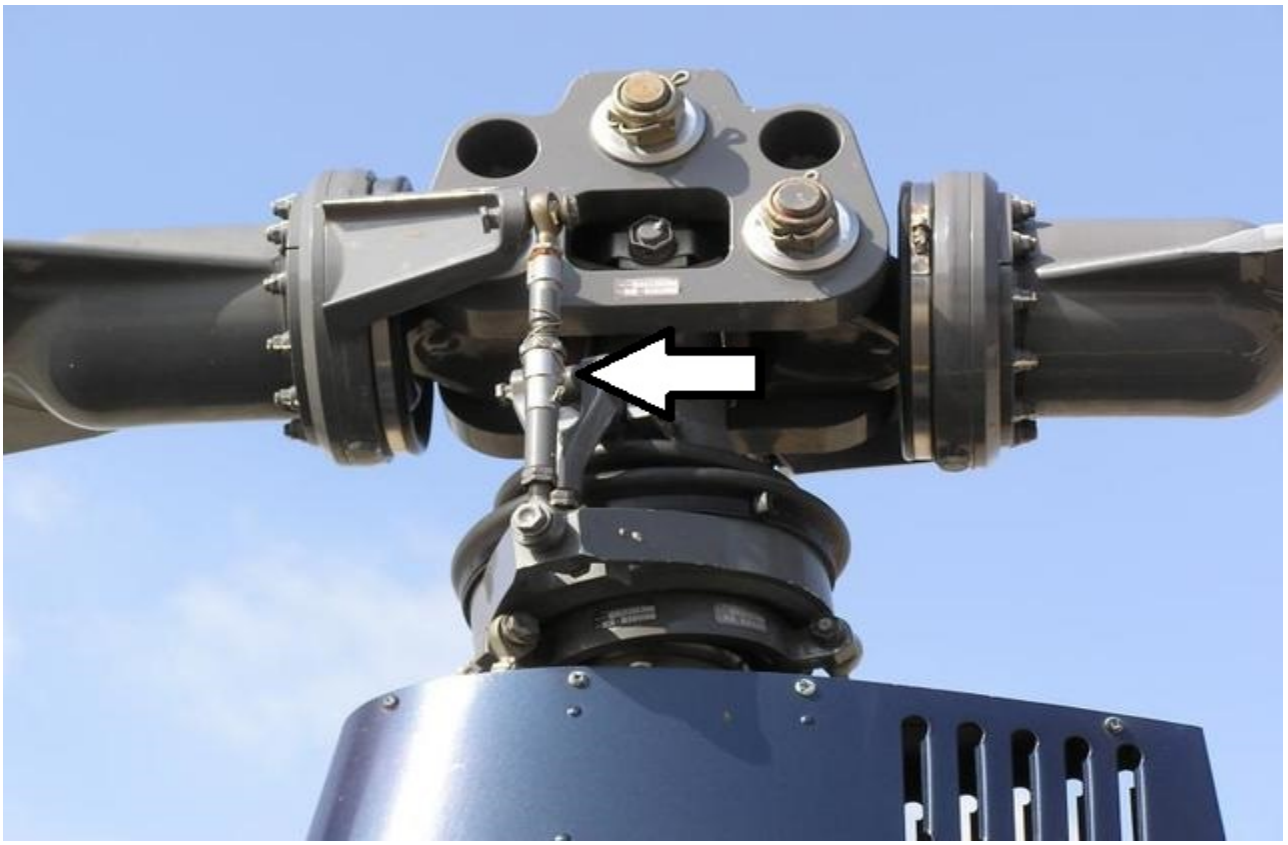
- (a) Cyclic

- (b) Collective

- (c) Yaw

If choice b is selected set score to 1.

10. To what part is pointed in the picture?

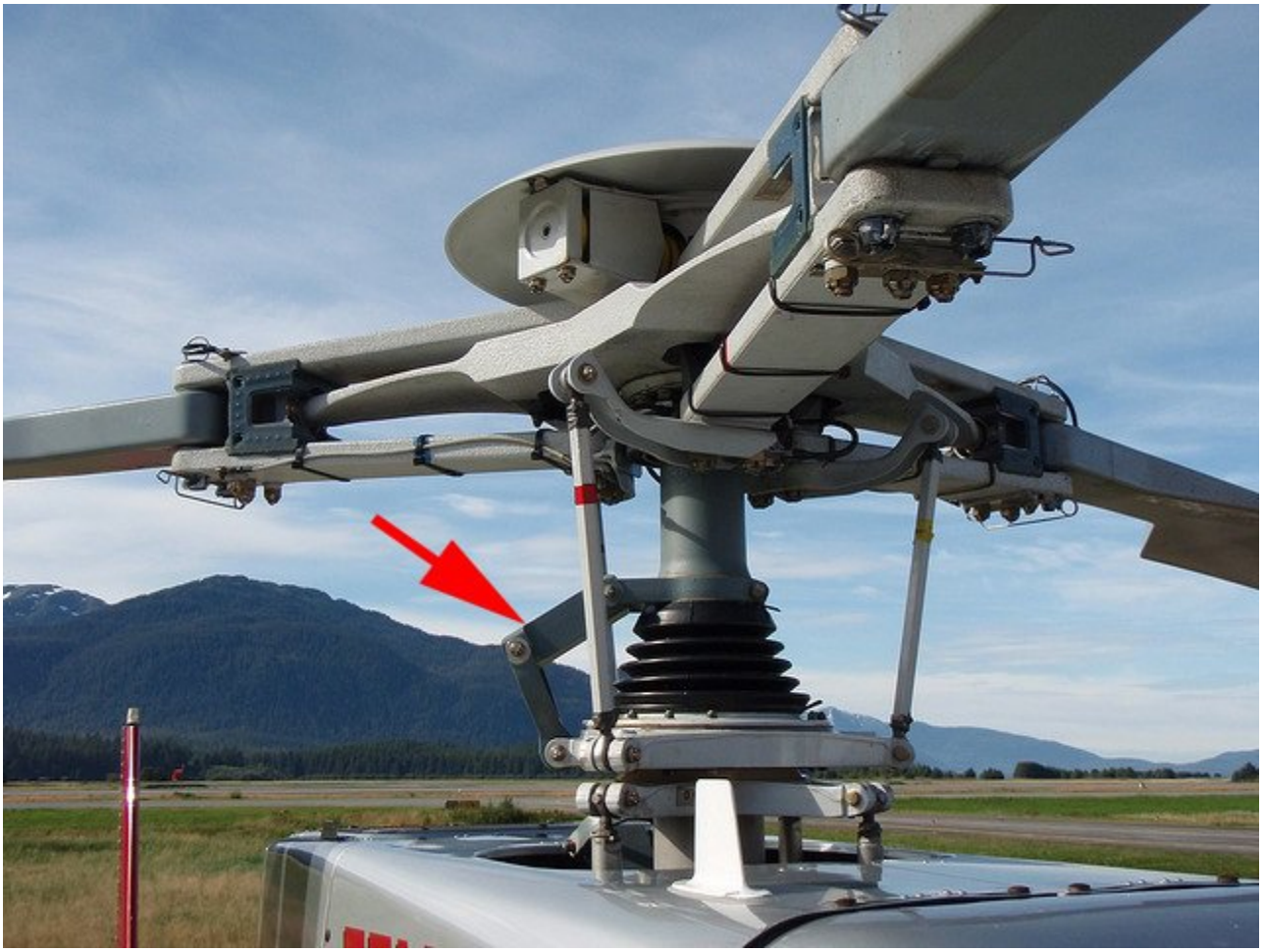


- o (a) Swash plate.
- o (b) Blade horn.

- (c) Pitch link.

If choice c is selected set score to 1.

11. What is the purpose of the indicated component?

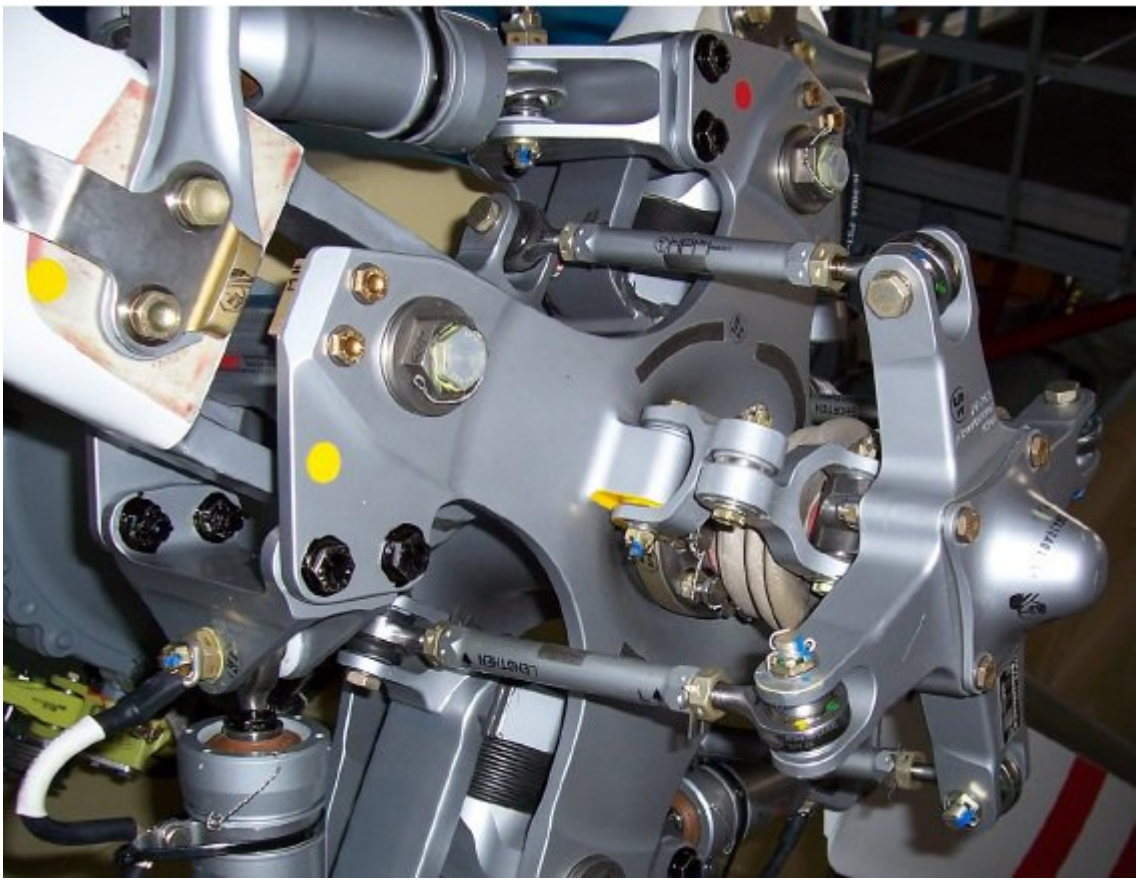


- (a) Guide the swashplate up and down the swashplate guide.

o (b) Prevent the stationary swashplate from turning with the rotor.
o (c) Drive the rotating swashplate with the main rotor.

If choice a is selected set score to 1.

12. What type of tail rotor is shown?

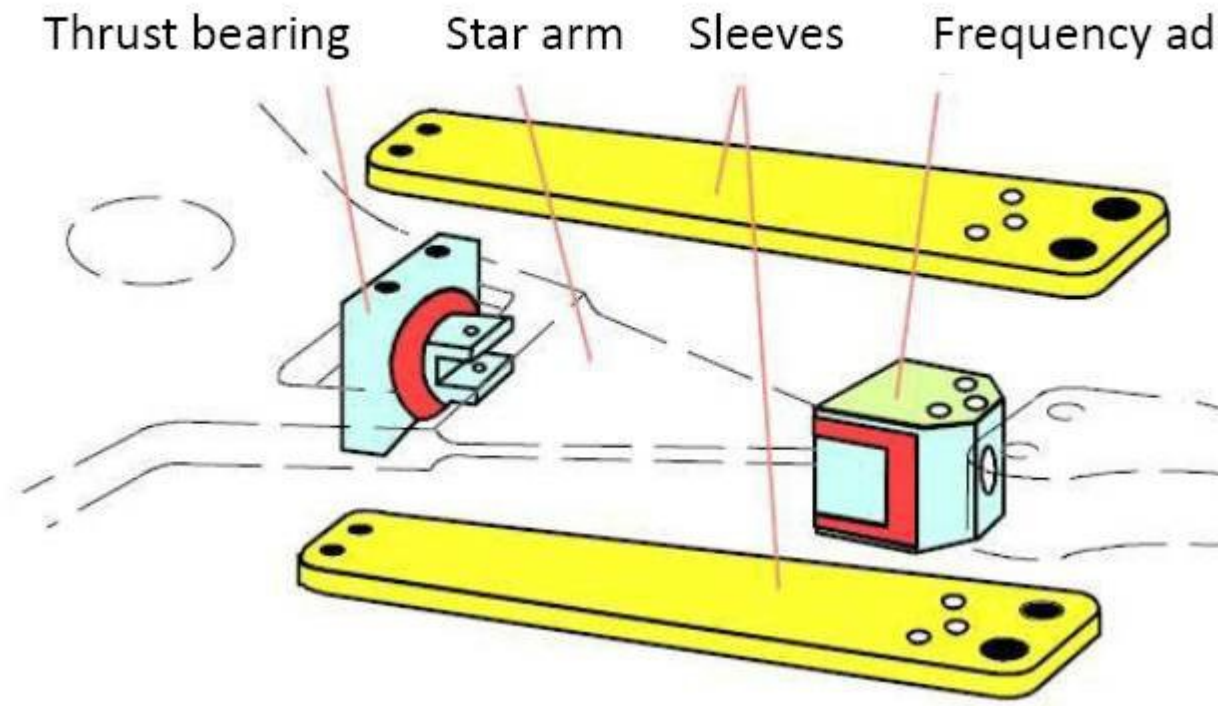


- o (a) Fenestron
- o (b) Flexbeam

- (c) Fully articulated

If choice c is selected set score to 1.

13. Which movement is made possible by the elastomeric frequency adapters in a hybrid rotor system?

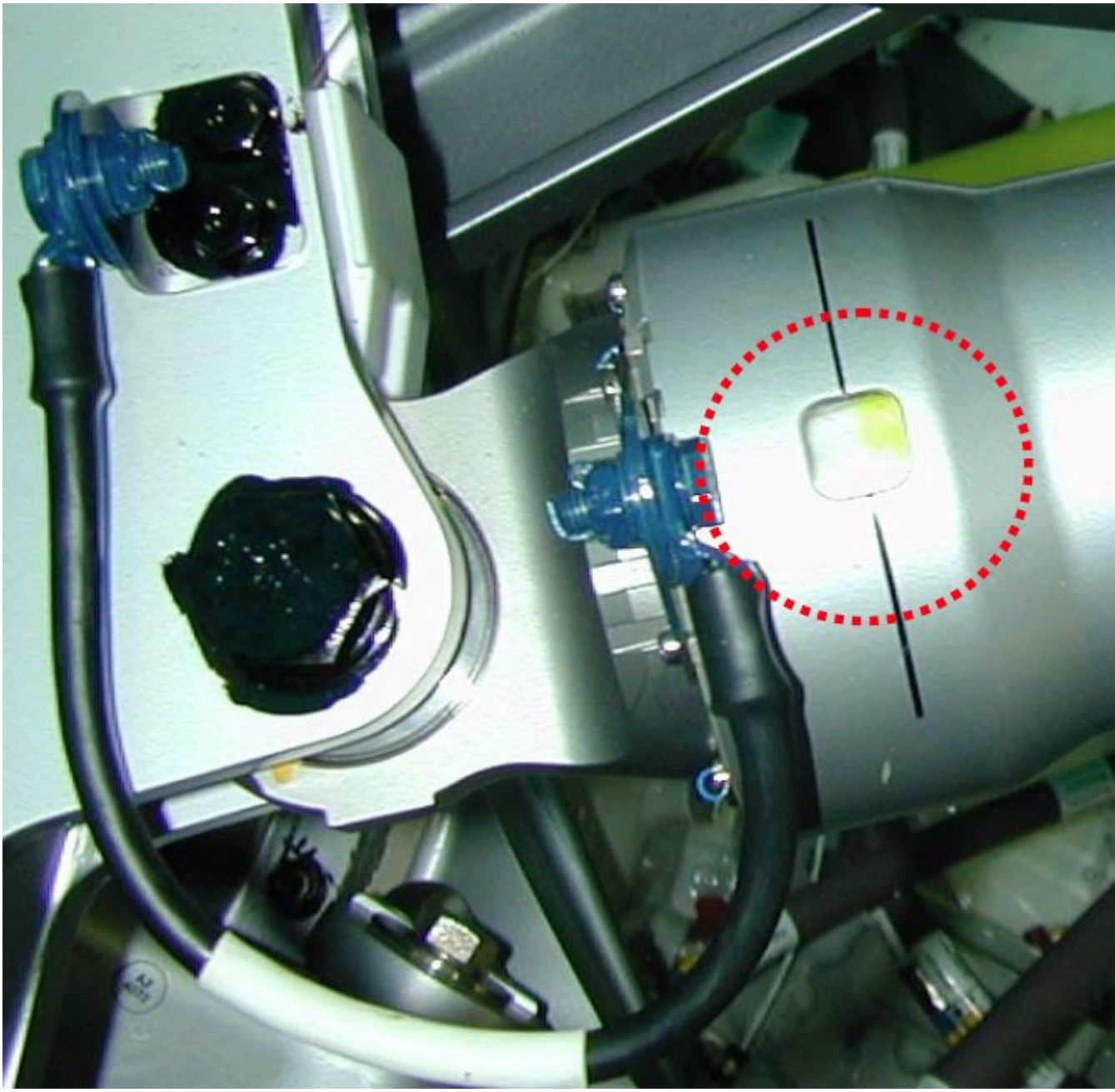


- (a) Lead-lag

o (b) Flapping
o (c) Feathering

If choice a is selected set score to 1.

14. What is the function of the indicated item?



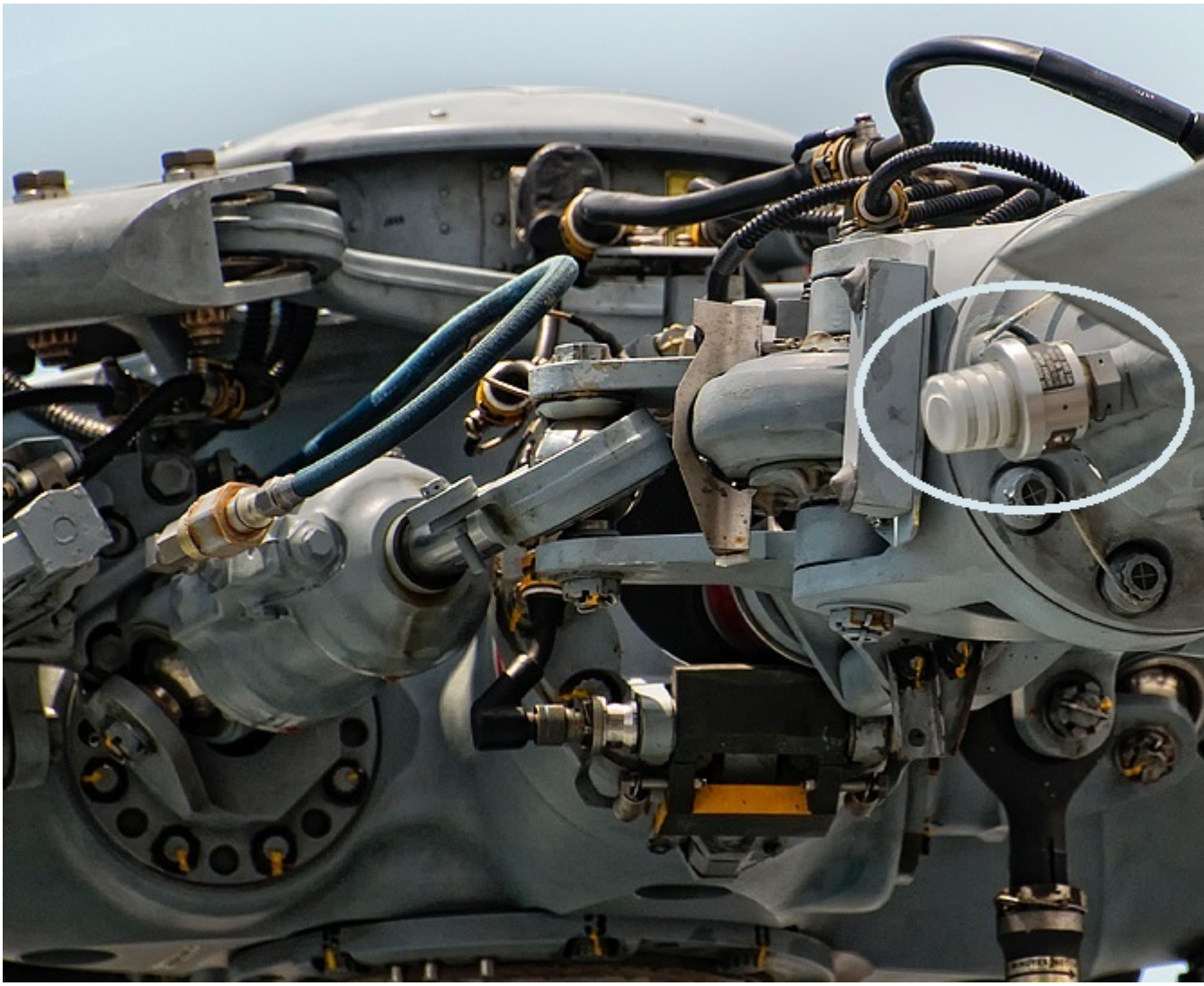
o (a) It is an indicator used for rigging the damper.

• (b) It is an indicator that shows the fluid level inside the damper.

o (c) It is an indication that becomes visible when the damper had been exposed to forces beyond its limits.

If choice b is selected set score to 1.

15. What is the indicated component on the blade?



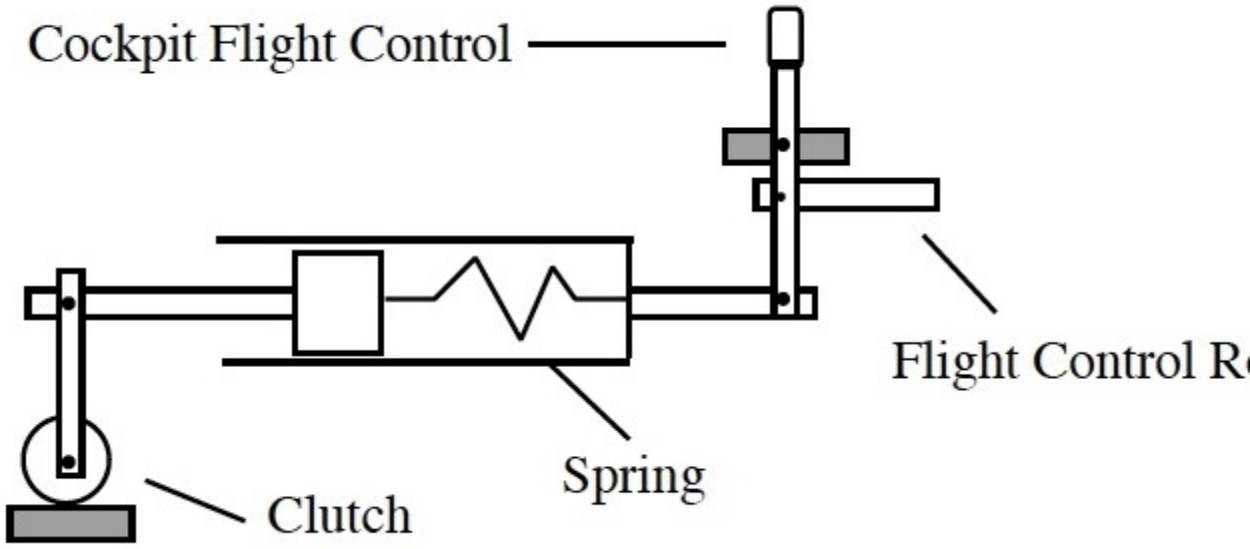
- (a) An indicator for the blade crack detection system.

o (b) An indicator for the blade damper fluid level.
o (c) A blade vibration sensor.

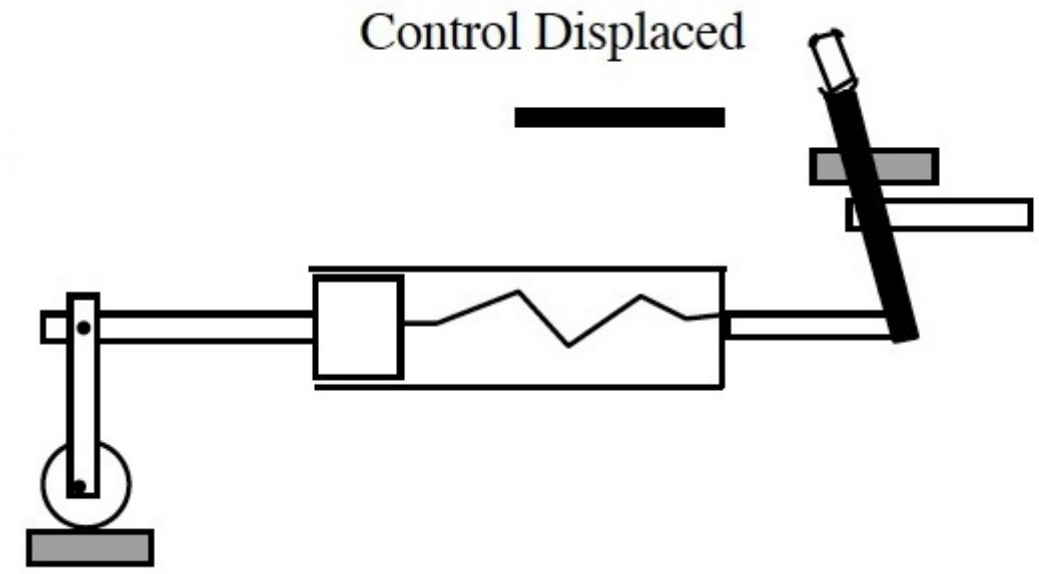
If choice a is selected set score to 1.

16. Which of the 3 illustrations shows the condition where the trim force release switch is activated, clutch disengaged and there is no force in the cockpit control?

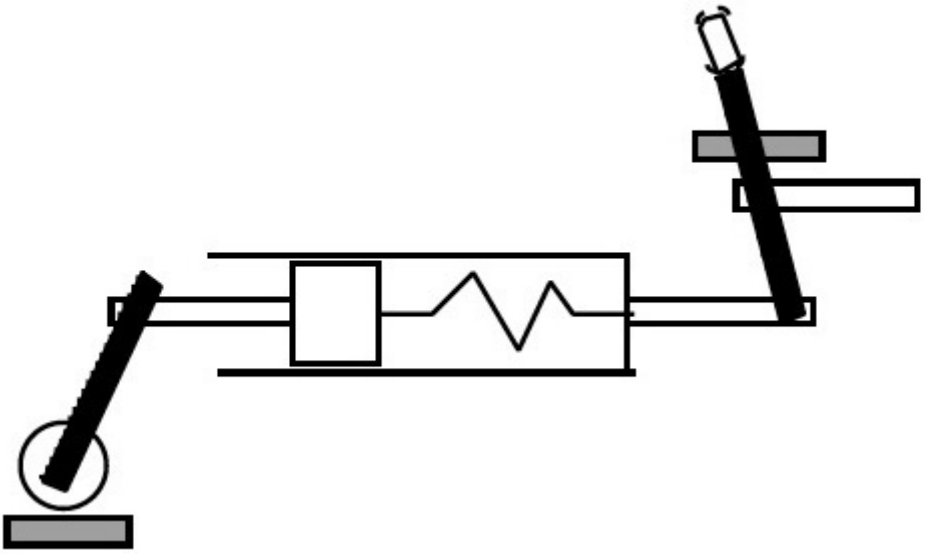
o (a)



o (b)



- (c)



If choice c is selected set score to 1.

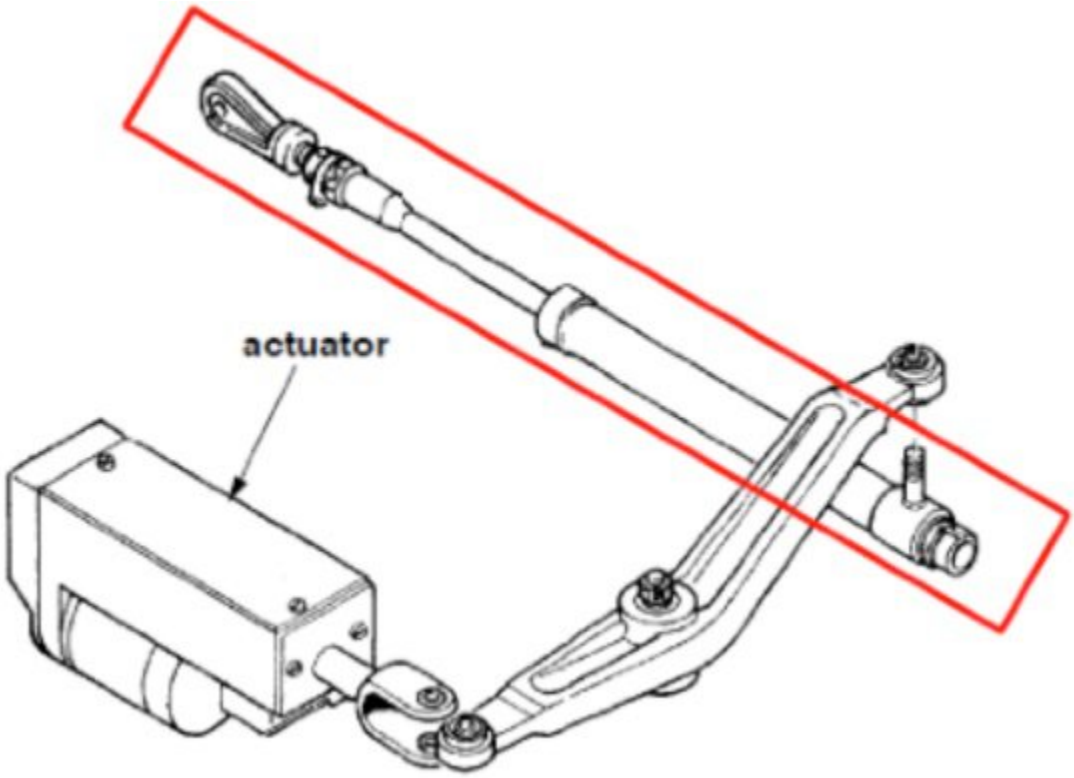
17. Which flight control system requires the least maintenance time?

o (a) hydraulic
o (b) control rods

- (c) fly-by-wire

If choice c is selected set score to 1.

18. What is indicated in the figure?



- (a) Spring rod

o (b) Control rod
o (c) Alternate hydraulic actuator

If choice a is selected set score to 1.

19. How can the blade track be adjusted?

- (a) adding tracking weights to the blade tip

o (b) adjusting the mass chordwise balance weight
o (c) adding tracking weights to the blade pitch links

If choice a is selected set score to 1.

20. The blade sweeping of main rotor blades is applicable to:

- (a) Semi rigid main rotors.

o (b) All types of main rotor.
o (c) Fully articulated main rotors.

If choice a is selected set score to 1.

21. A main rotor with pitch links attached to the leading edge has to be adjusted so that the blades fly higher. Which adjustment must be made?

- o (a) The weight of the blades must be increased by adding extra balance weights to the tips.
- o (b) The pitch links must be shortened.

- • (c) The pitch links must be lengthened.

If choice c is selected set score to 1.

22. Identify the two items?

- • (a) (1) Photo-optical pick-up, (2) Accelerometer

- o (b) (1) Photo-optical pick-up, (2) IR-sensor.
- o (c) (1) Accelerometer, (2) Magnetic pick-up.

If choice a is selected set score to 1.

23. In the figure, what is the marked item?

- (a) Active vibration reduction device.
- (b) Main rotor blade track adjustment

- (c) Passive vibration reduction device.

If choice c is selected set score to 1.

24. What is the main difference between higher harmonic control (HHC) and individual blade control (IBC)?

- (a) HHC uses actuators on the non-rotation part of the rotor system while IBC inputs on the rotating part of the main rotor.

- (b) HHC controls all blades at the same time while IBC controls the blades individually.
- (c) HHC is a passive vibration reduction system while IBC is an active system.

If choice a is selected set score to 1.

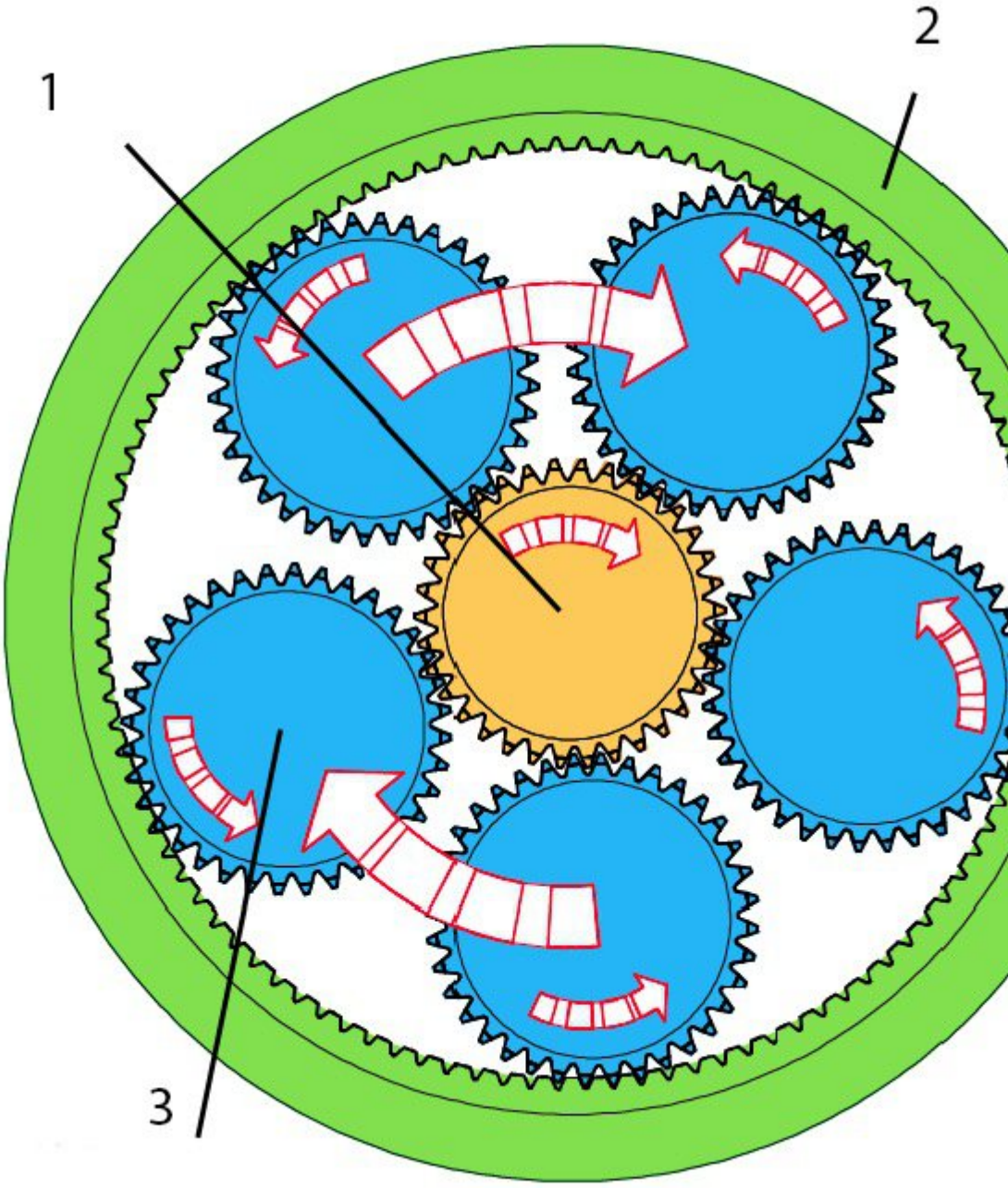
25. Why is ground resonance most likely to occur on an articulated rotor system?

- (a) Due to the damping devices.
- (b) Due to the flapping hinges.

- (c) Due to the lead-lag hinges.

If choice c is selected set score to 1.

26. Name the components in the figure.

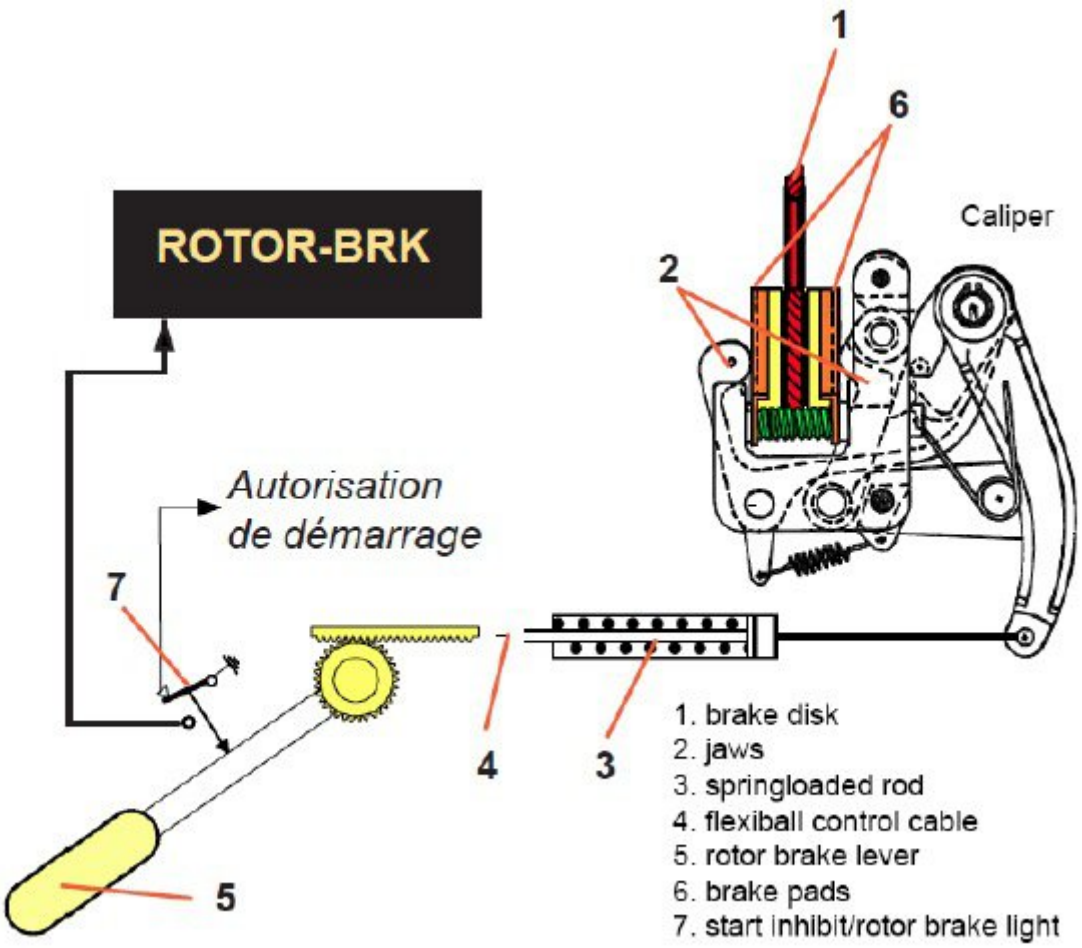


- (a) 1= Sun gear,
  2= Ring gear,
  3= Planet gear

- (b) 1= Center gear,
  2= Perimeter gear,
  3= Orbital gear
- (c) 1= Ring gear,
  2= Sun gear,
  3= Planet gear

If choice a is selected set score to 1.

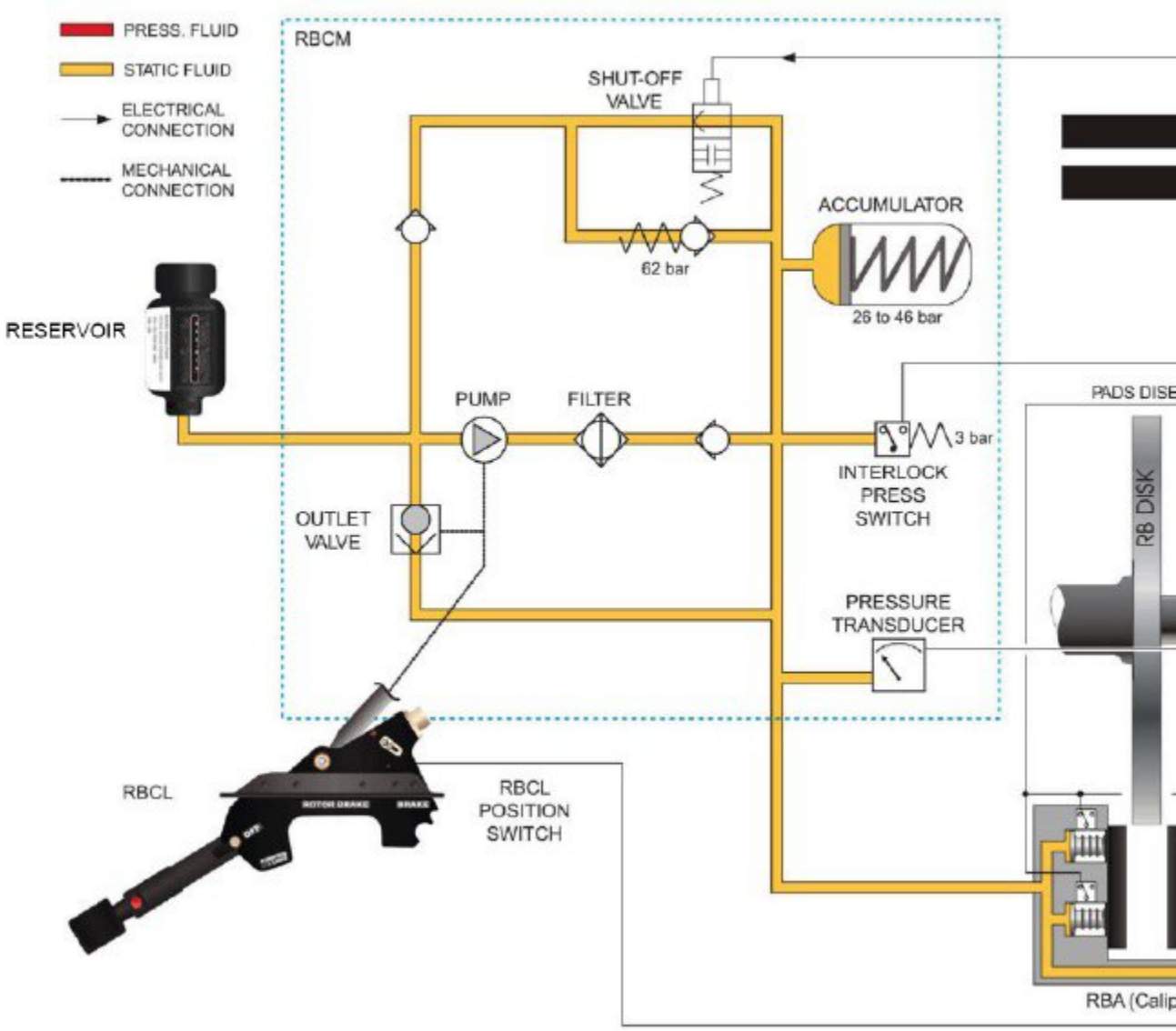
27. In the figure, what is the purpose of the spring rod (3)?



- o (a) Adjusts for thermal expension of the control cable
- • (b) Adjusts for rotor brakepad wear.
- o (c) Maintains the rotor brake ON in case of control cable failure.

If choice b is selected set score to 1.

28. In which condition would the helicopter be in to have the rotor brake system as shown in the figure.



- o (a) Aircraft on the ground - rotor brake ON
- o (b) Aircraft on the ground - rotor brake OFF

- • (c) Aircraft in flight

If choice c is selected set score to 1.

29. What is used, to allow for slight misalignment of the tail rotor drive shaft sections?

- • (a) Flexible couplings.

- o (b) Self aligning bearings.
- o (c) Bearings mounted in elastomer bushings.

If choice a is selected set score to 1.

30. The primary structure consists of:

- o (a) Lateral and vertical elements
- o (b) Lateral and diagonal elements
- • (c) Longitudinal and vertical elements

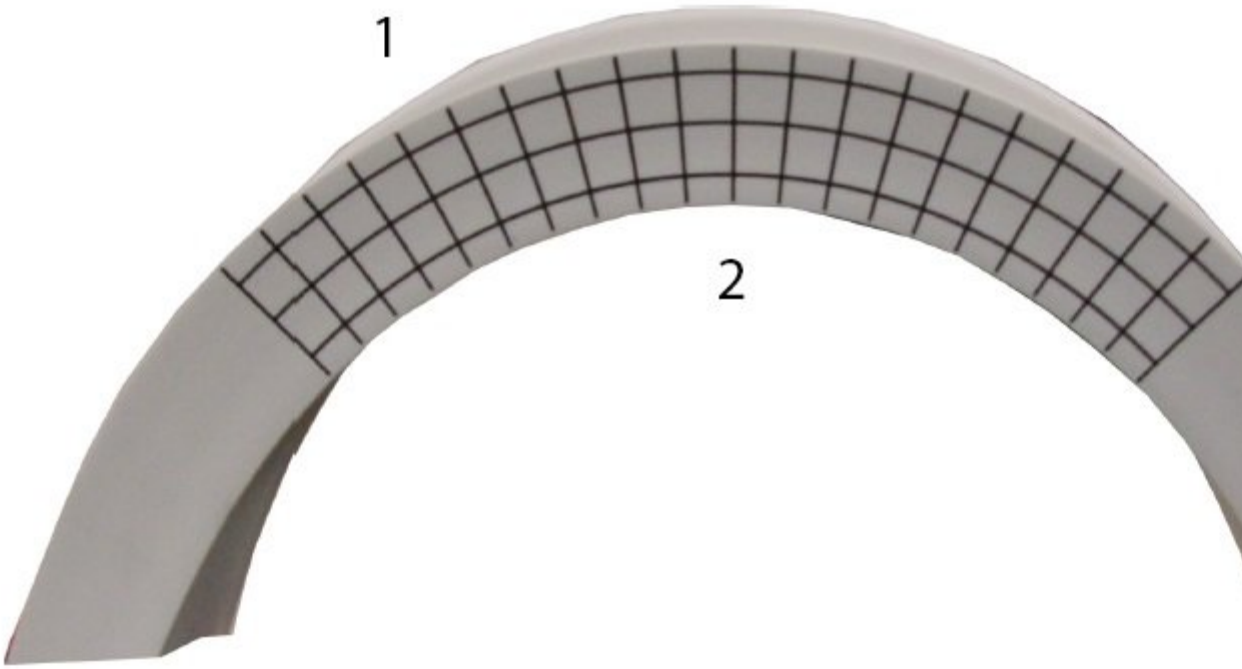
If choice c is selected set score to 1.

31. In the zonal system, 700 would be the number for:

- o (a) Fuselage
- o (b) Doors
- • (c) Landing gear

If choice c is selected set score to 1.

32. The object is being subjected to a bending force. The stresses in area 1 and 2 will be?



- o (a) (1) Compression, (2) Hoop
- o (b) (1) Shear, (2) Compression
- • (c) (1) Tension, (2) Compression

If choice c is selected set score to 1.

33. What is the main reason of having drains in the aircraft structure?

o (a) The humidity caused by the fluid can influence the air-conditioning system.

• (b) Collecting fluids without draining could cause fire, corrosion or causing short cuts in the electrical system.

o (c) To avoid the extra weight. This can overload the structure.

If choice b is selected set score to 1.

34. What is the function of the Static dischargers?

• (a) In case of a static charge they lead the electrical energy off the aircraft.

o (b) They function as a communication antenna.
o (c) They will protect the communication systems against a lightning strike.

If choice a is selected set score to 1.

35. What type of construction is show in the figure?

o (a) Semi-Monocoque construction

• (b) Monocoque construction

o (c) Welded steel fuselage construction

If choice b is selected set score to 1.

36. How is the tailboom attached to the main fuselage on most civilian helicopters?

- o (a) Hinged
- o (b) Rivetted
- • (c) Bolted

If choice c is selected set score to 1.

37. What is one of the biggest drawback of windshields compared to windscreens?

- o (a) Windshields are only useful when operating in cold climates because of the increased greenhouse effect heating up to cockpit too much in hot climates.
- • (b) Windshields are heavy
- o (c) Windshields are not as impact resistant (bird strike) as windscreens.

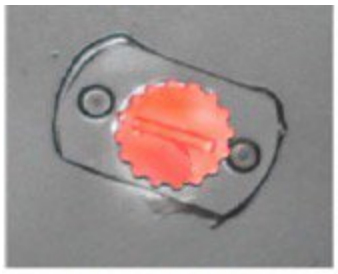
If choice b is selected set score to 1.

38. In addition to keeping the windshield ice and fog free, what other purpose does heating of the windshield have?

- o (a) Increases the strength of the windshield
- o (b) Helps warm up the cockpit
- • (c) Increases the flexibility of the windshield

If choice c is selected set score to 1.

39. What is the purpose of the drain plug shown in the figure?



Drain plug

- • (a) To drain out any water which has collected in the compartment where the fuel tank is located.
- o (b) To drain out any fuel which has collected the compartment where the fuel tank is located.
- o (c) To allow the compartment to be inspected internally without removing the fuel tank.

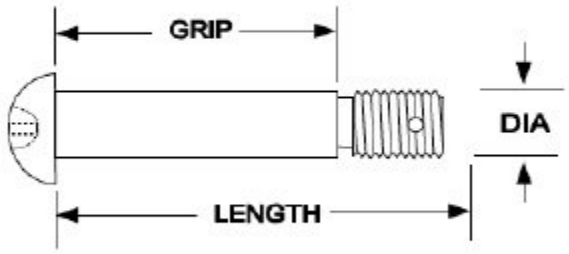
If choice a is selected set score to 1.

40. What is commonly used in the engine mounting system to allow for misalignment of the main gear box and engine?

- o (a) Elastomeric couplings.
- • (b) Gimbal joint
- o (c) Adjustable engine supports.

If choice b is selected set score to 1.

41. What does the number 14 indicate in the bolt partnumber AN24-14A?



- o (a) The diameter of the bolt (14/64 inch diameter).
- o (b) The material specification (14 = steel).
- • (c) The bolt length (14/16 inch diameter.

If choice c is selected set score to 1.

42. Is it permissable to de-grease a landing gear with a steam cleaner?

- o (a) No, damage to the bearing and seals may occure.
- • (b) Yes, but all the components must be re-lubricated.
- o (c) Yes

If choice b is selected set score to 1.

43. Which type of helicopters would use a compressor to power the air conditioning system?

- • (a) Helicopters which have insufficient engine bleed
- o (b) Helicopters which have limited space
- o (c) Helicopters which have powerful engines

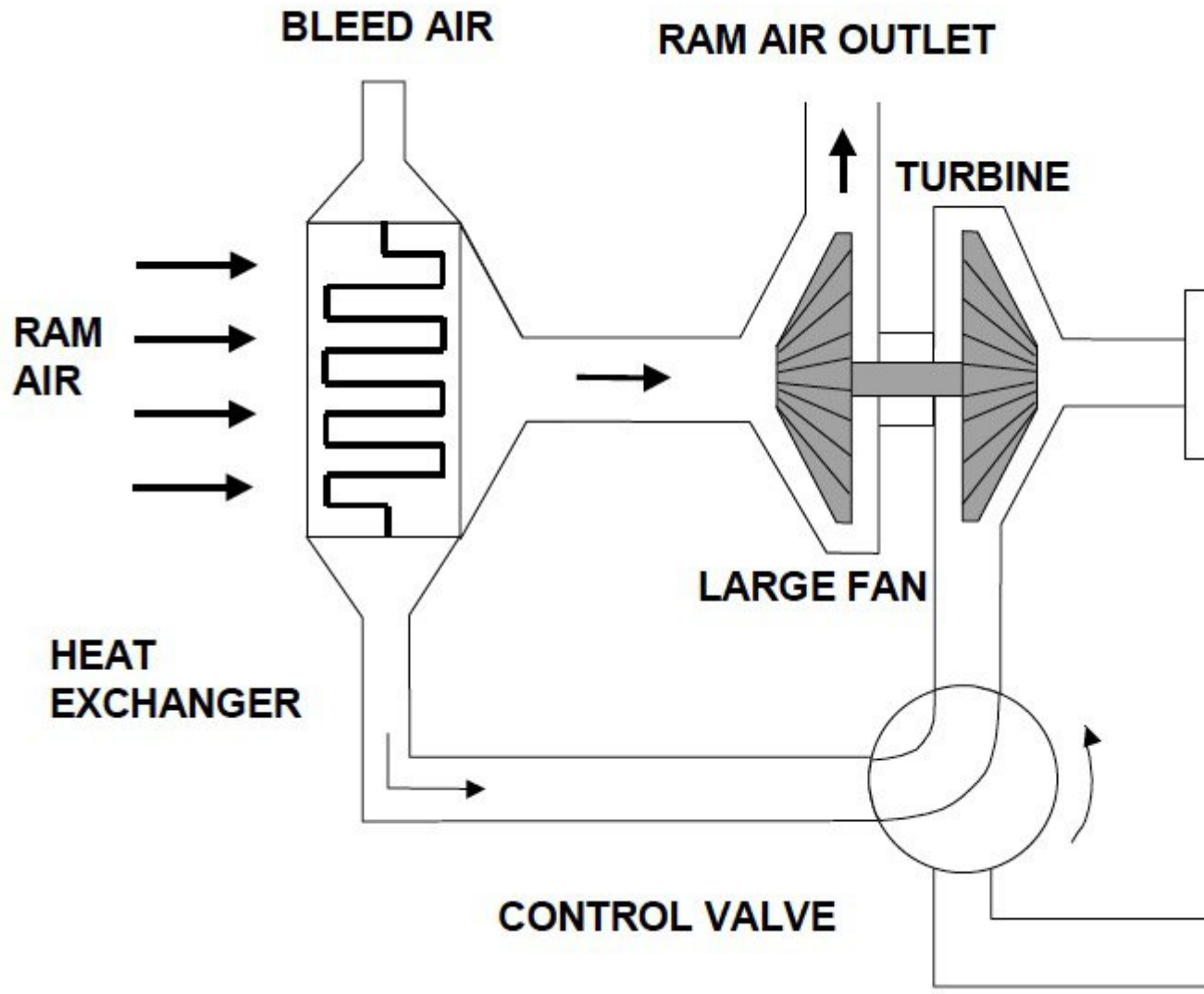
If choice a is selected set score to 1.

44. Which of the following air conditioning systems is considered to be the most simple system?

- o (a) Compressor
- o (b) Engine bleed air
- (c) RAM air

If choice c is selected set score to 1.

45. What type of airconditioning system is shown in the figure?



- (a) Turbofan system
- o (b) Vapor cycle system
- o (c) Turbo compressoor system

If choice a is selected set score to 1.

46. Why is the air intake for the ventilation system usually on or near the nose of the helicopter?

- o (a) It is the best location to ensure foreign objects are not sucked into the air intake.
- o (b) It prevents exhaust gases getting into the ventilation system.
- • (c) So that the airflow around the engine inlet is not disturbed.

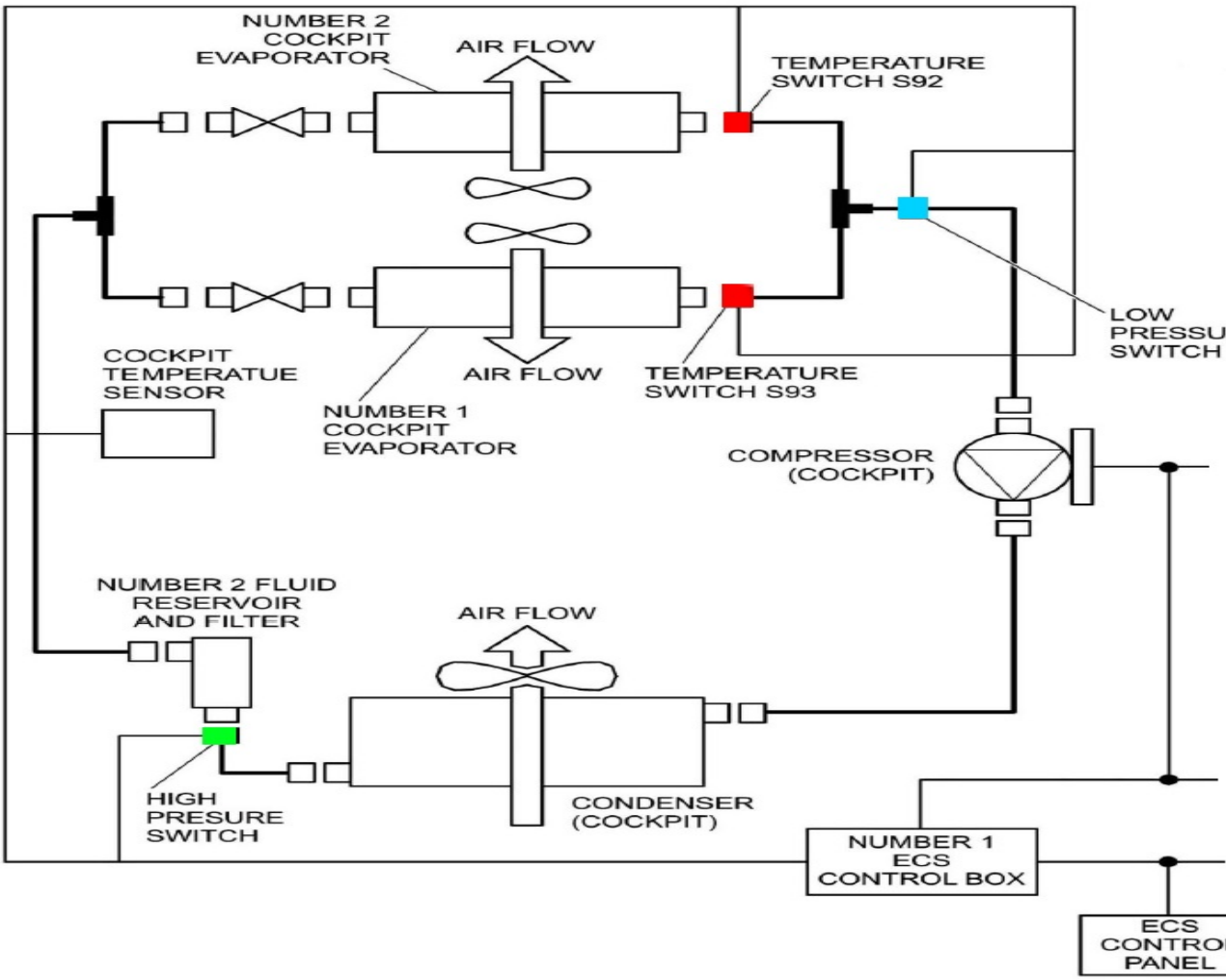
If choice c is selected set score to 1.

47. What are electrical heaters used for?

- o (a) Not used on helicopters
- • (b) Demisting the windscreens
- o (c) Heating up the cabin ventilation air

If choice b is selected set score to 1.

48. The vapor cycle system shown in the figure has a temperature switch S93. When will this switch cause a shut-down of the system?



o (a) When the cockpit evaporator number 1 gets too hot

• (b) When the cockpit evaporator number 1 freezes

o (c) When the fluid coming out of the evaporator is too hot

If choice b is selected set score to 1.

49. The figure shows a pressure reverting servo altimeter. What is the benefit of this type of altimeter?

- o (a) It switches to an internal servo system in case of a failure of the external master altimeter
- • (b) In case of a failure of the servo part of the altimeter, it switches to mechanical operation automatically
- o (c) It allows for automatic barometric pressure compensation

If choice b is selected set score to 1.

50. What type of gyro would you find in an gyro horizon unit (artificial horizon)?

- • (a) Displacement gyro
- o (b) Free gyro
- o (c) Vertical gyro

If choice a is selected set score to 1.

51. In which system would you generally find a flux valve?

- • (a) Remote reading magnetic compass
- o (b) Direct reading magnetic compass
- o (c) Horizontal situation indicator

If choice a is selected set score to 1.

52. The flight data from HUMS is analysed by?

o (a) By anybody using the Multifunctional Digital Acquisition Unit (MFDAU).

• (b) By the operator in a ground station.

o (c) By the helicopter constructor.

If choice b is selected set score to 1.

53. Which instruments are combined in an integrated standby instrument system?

• (a) Electronic attitude director indicator (EADI), Electronic horizontal situation indicator (EHSI) and Altimeter.

o (b) Electronic attitude director indicator (EADI) and Electronic horizontal situation indicator (EHSI).
o (c) Electronic attitude director indicator (EADI), Electronic horizontal situation indicator (EHSI) and Vertical speed indicator (VSI)

If choice a is selected set score to 1.

54. Which of the following main gear box indications is generally not displayed in the cockpit?

o (a) Oil temperature

• (b) Oil level

o (c) Oil pressure

If choice b is selected set score to 1.

55. To provide the correct amount of rudder deflection to cancel the Dutch Roll is also called;

• (a) yaw damping

o (b) glide slope
o (c) pitch trim

If choice a is selected set score to 1.

56. What is pitot pressure?

o (a) It is the outside air pressure at the instant of measuring.

• (b) It is the dynamic pressure of the air due to the forward motion of the aircraft.

o (c) It is the total pressure inside the aircraft.

If choice b is selected set score to 1.

57. What system is used to transmit or receive automatically or manually generated reports or messages to or from a ground station?

- (a) The Aircraft Communication Addressing and Reporting System (ACARS).

o (b) The Multichannel Aviation Satellite Communication System (MCS SATCOM).
o (c) The SELCAL (Selective Calling) system.

If choice a is selected set score to 1.

58. The system that allows long distance voice communication is called:

o (a) Selcal communication.

- (b) High Frequency communication (HF).

o (c) Very High Frequency communication (VHF).

If choice b is selected set score to 1.

59. The system that determines the distance between the aircraft and the runway threshold is called:

o (a) VHF-navigation system.

- (b) Marker Beacon system.

o (c) ADF-system.

If choice b is selected set score to 1.

60. On an aircraft flying above 2500 feet, the radio alimeter will show?

- (a) Blank

o (b) 0
o (c) 2500

If choice a is selected set score to 1.

61. A lead-acid battery will be replaced by a NiCd battery. What must be done before the battery is installed?

o (a) A battery temperature sensor must be installed
o (b) A battery vent system must be installed

- (c) The battery compartment must be neutralized and flushed with water

If choice c is selected set score to 1.

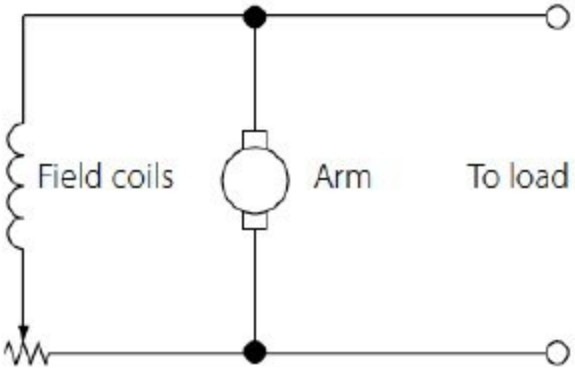
62. Why is "trickle charging" a NiCd battery not recommended?

- o (a) The battery life will be shortened
- o (b) The battery may go into thermal runaway

- • (c) The battery cells may run dry due to the consumption of water

If choice c is selected set score to 1.

63. The schematic of which type of generator is shown in the figure?



- • (a) Shunt wound DC generator

- o (b) Shunt wound DC alternator
- o (c) Compound wound AC alternator

If choice a is selected set score to 1.

64. Why is it that a helicopter doesn't need a constant speed drive to run an AC alternator?

- o (a) Helicopter engines run at a fairly contant speed so a constand speed drive is not required
- o (b) Helicopters use a special design AC alternator which produces a constant output no matter what speed it is driven by.

- • (c) AC generators on a helicopter are driven by the main gear box which runs at a constant speed

If choice c is selected set score to 1.

65. Which is the most commonly used emergency power generation system used on helicopters?

- o (a) Hydraulic motor generator
- o (b) Ram air turbine

- • (c) Emergency battery power

If choice c is selected set score to 1.

66. When will the generator control unit (GCU) of an AC generation system allow the generator breaker to close?

- o (a) When current and frequency output of the alternator are correct
- o (b) When voltage and current output of the alternator are correct
- • (c) When voltage and frequency output of the alternator are correct

If choice c is selected set score to 1.

67. The bus which powers components required for continued safe operation of the aircraft is called?

- o (a) Essential bus
- o (b) Main bus
- • (c) Emergency bus

If choice c is selected set score to 1.

68. What does a transformer rectifier unit (TRU) do?

- • (a) Convert AC into DC
- o (b) Convert 3 phase AC into single phase AC
- o (c) Convert DC into AC

If choice a is selected set score to 1.

69. What is the purpose of the DC interlock?

- o (a) Prevents reverse polarity from being applied.
- o (b) Ensures the correct voltage is supplied before allowing it to enter the aircrafts electrical system.
- • (c) Ensures that the connector is fully seated in the socket before allowing the electrical system to be energized by the external power.

If choice c is selected set score to 1.

70. The number of emergency exits in a helicopter depend on:

- • (a) The number of passengers it can carry
- o (b) The size of the helicopter
- o (c) The operation it was designed for (over water or land or both)

If choice a is selected set score to 1.

71. Which of the following statements in NOT true?

- • (a) The CPI is a replacement for the Emergency locator transmitter (ELT)

- (b) The CPI is mandatory for helicopters operating in the oil and gas industry
- (c) The Crash Position Indicator (CPI) system has a deployable beacon that floats

If choice a is selected set score to 1.

72. The operating mechanisms for emergency exits are:

- (a) Standardized on large civilian helicopters only
- (b) Standardized and the same for all helicopters

- (c) Not standardized and different on most helicopters

If choice c is selected set score to 1.

73. What type of restrain system is shown in the figure?

- (a) A 4 point seat harness

- (b) A 5 point seat harness
- (c) A standard seat belt

If choice a is selected set score to 1.

74. Operation of the rescue hoist is normally performed by....

- (a) the hoist operator using the control pendant.

o (b) the hoist operator using the control switch in the cabin.
o (c) the pilot using the control pendant.

If choice a is selected set score to 1.

75. Which of the following would NOT be part of cabin layout?

- (a) Sun visors

o (b) Fire extinguisher
o (c) Personal service units

If choice a is selected set score to 1.

76. How many G is the typical cabin floor designed to withstand?

o (a) 1G
o (b) 100G

- (c) 20G

If choice c is selected set score to 1.

77. In a systron donner sensing loop, what causes the alarm to trigger due to a fire?

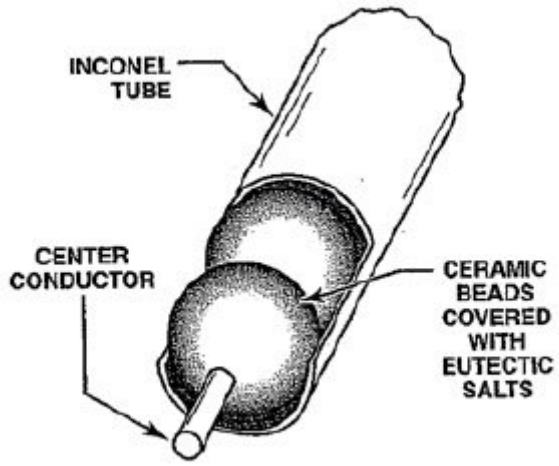
o (a) Heating of the helium gas makes it expand and activate a switch when the pressure builds up high enough

- (b) Heating of the center titanium wire causes hydrogen to be released, building up the pressure inside the stainless steel tube until it is sufficient to activate a switch

o (c) Heating of the sensor causes the ceramic core to become conductive, closing the circuit and triggering the alarm.

If choice b is selected set score to 1.

78. Which sensing system is shown in the figure?



- o (a) Systron donner
- o (b) Lindberg
- • (c) Fenwall

If choice c is selected set score to 1.

79. Concerning fire extinguishing, what does a red disk on the side of the fuselage indicate?

- o (a) Indicates that the bottle nitrogen pressure is low and needs to be serviced
- • (b) When the disk is missing, it indicates that the bottle has had a thermal discharge
- o (c) When the disk is missing, it Indicates that the firebottle has been fired

If choice b is selected set score to 1.

80. Which of the follwing statements is correct concerning fire bottle squibs?

- o (a) A squib has a limited life. As long as it passes the continuity test it may be left in service.
- o (b) The serviceability of a squib can be checked with any Ohm meter
- • (c) The filaments in the squib test circuit are a special kind and must not be interchanged with other types.

If choice c is selected set score to 1.

81. Where does a helicopter generally store its fuel?

- • (a) Fuel tanks under the floor
- o (b) In external fuel tanks

- (c) Fuel tanks in the aft section

If choice a is selected set score to 1.

82. In a fuel tank system with a feeder tank, what is the purpose of the jet pump.

- (a) Pump fuel from the other fuel cells to the feeder tank

- (b) Pump fuel out of the feeder tank to the fuel cells
- (c) Supply fuel to the engine from the feeder tank

If choice a is selected set score to 1.

83. Which of the following statements about the fuel pumps is NOT correct?

- (a) Fuel pumps are installed in such a way that they can supply fuel to the engines under any flight condition
- (b) Fuel pumps on helicopters are AC or DC powered

- (c) The engine cannot operate when the fuel pumps are not running.

If choice c is selected set score to 1.

84. To completely empty a fuel tank, what is used?

- (a) Tank defueling

- (b) Tank drain valve

- (c) Water drain valve

If choice b is selected set score to 1.

85. Before any refueling operation is started, the aircraft and fuel truck needs to be bonded. What is the correct sequence?

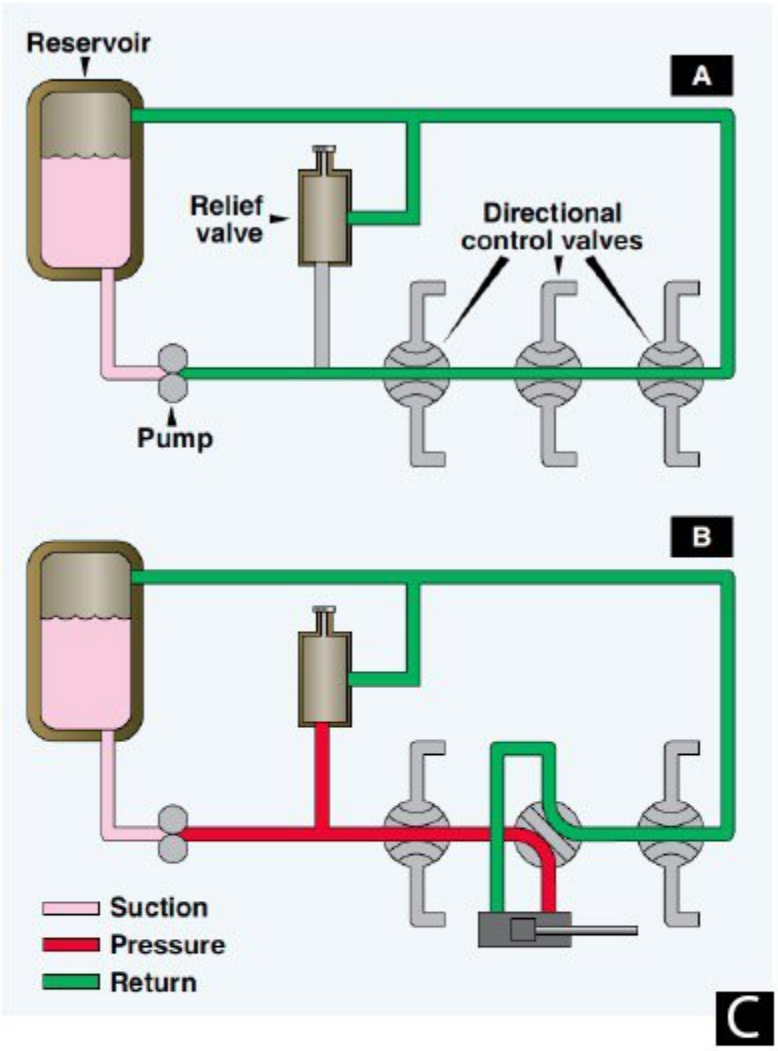
- (a) (1) Aircraft to fuel truck, (2) fuel nozzle to aircraft, (3) fuel truck to ground

- (b) (1) Fuel truck to ground, (2) aircraft to fuel truck, (3) fuel nozzle to aircraft

- (c) (1) Aircraft to ground, (2) fuel truck to aircraft, (3) fuel nozzle to aircraft

If choice b is selected set score to 1.

86. In the figure, which diagram shows a closed center hydraulic system?



- (a) A
- (b) B

- (c) C

If choice c is selected set score to 1.

87. A hydraulic fluid with a high viscosity will have a resistance to heat which is:

o (a) lower that a fluid with a low viscosity

• (b) greater than a fluid with a low viscosity

o (c) equal to that of a fluid with a low viscosity

If choice b is selected set score to 1.

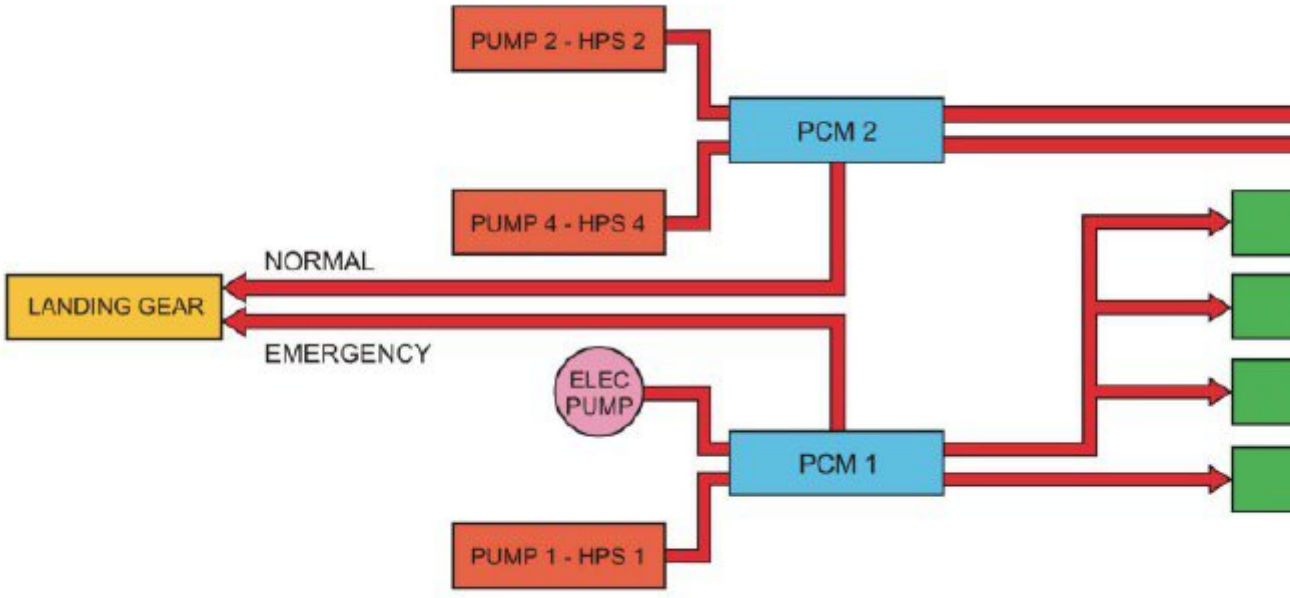
88. In a hydraulic system with a vented reservoir, what is done to ensure positive head of pressure?

o (a) The reservoir is pressurized
o (b) A small priming pump provides the head of pressure for the main pump

• (c) The reservoir is placed at a higher level than the pump

If choice c is selected set score to 1.

89. In the figure, what systems does the electrical pump (ELEC PUMP) power when switched on with the aircraft on the ground?



o (a) Landing gear

• (b) Landing gear, main and tail rotor controls

o (c) Main and tail rotor controls

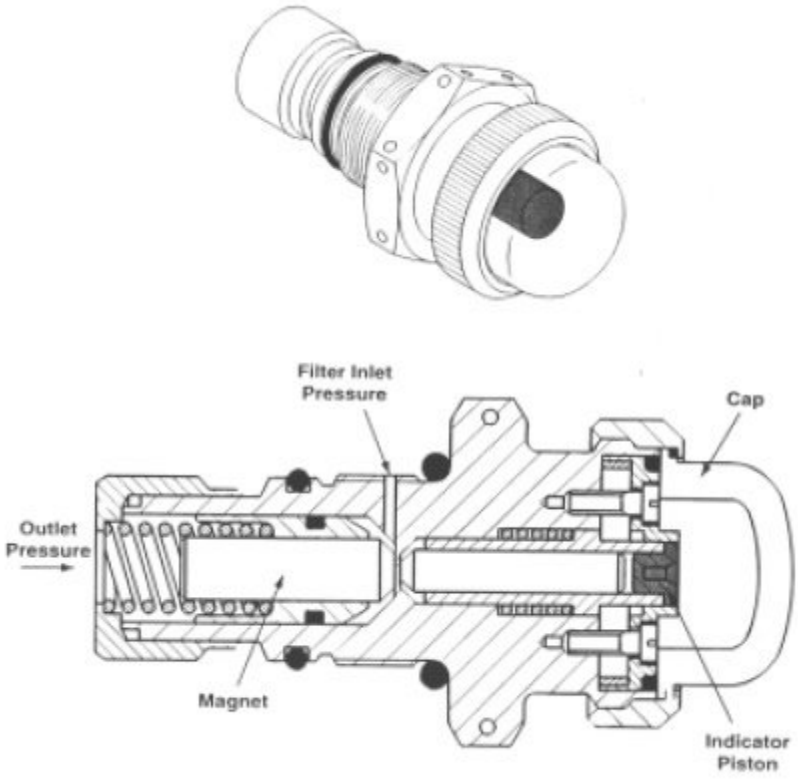
If choice b is selected set score to 1.

90. Which of the following is NOT a function of the emergency hydraulic system powered by an electric pump?

- o (a) Pressurizing the parking brake
- • (b) Retracting the landing gear.
- o (c) Pressurizing the main and tail rotor flight control actuators for testing on ground

If choice b is selected set score to 1.

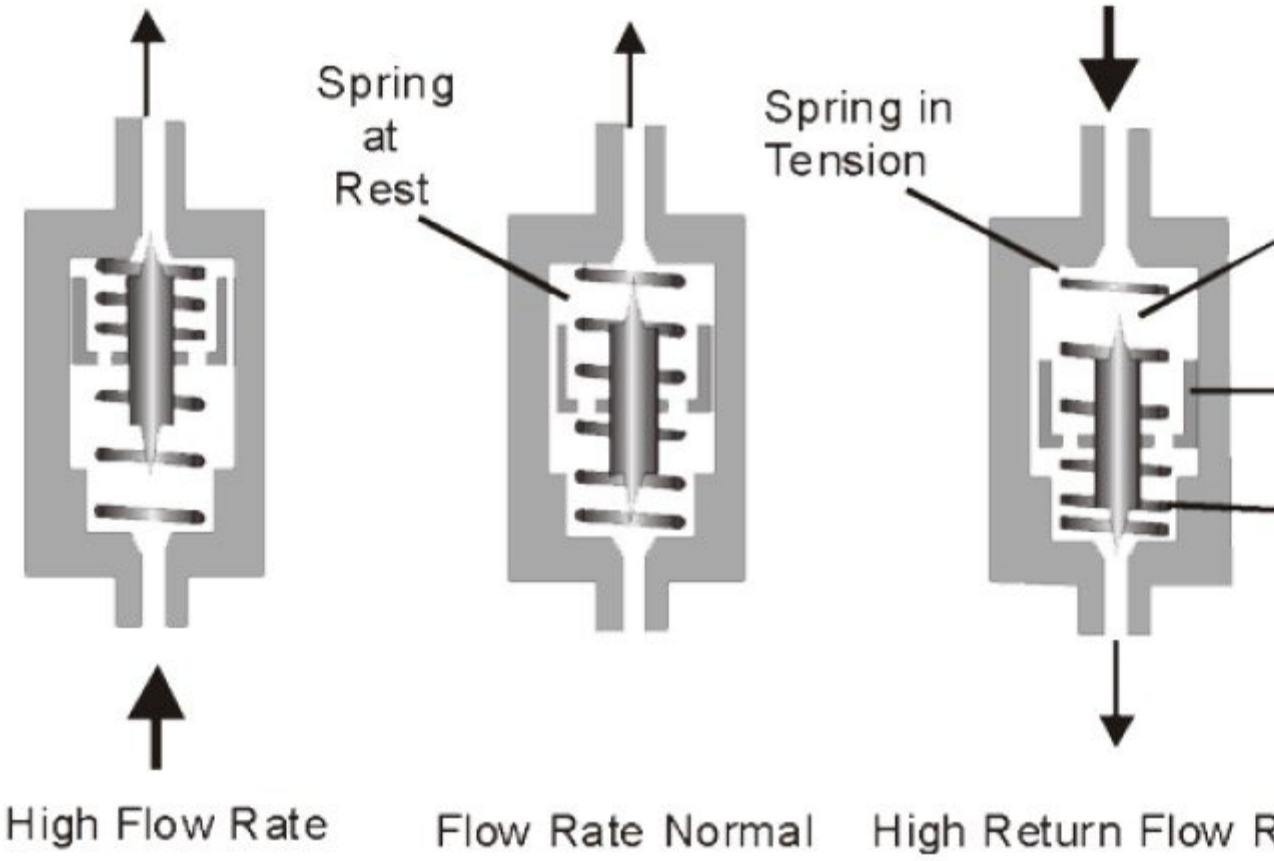
91. What would cause the devce shown in the figure to activate?



- o (a) A blocked filter would cause the outlet pressure to increase until the magnet is pushed back and breaks contact with the indicator allowing it to be pushed out by a spring.
- o (b) A blocked filter would cause the outlet pressure to increase until the magnet is pushed outwards, pushing the indicator out.
- • (c) A blocked filter would cause the inlet pressure to increase until the magnet is pushed back and breaks contact with the indicator allowing it to be pushed out by a spring.

If choice c is selected set score to 1.

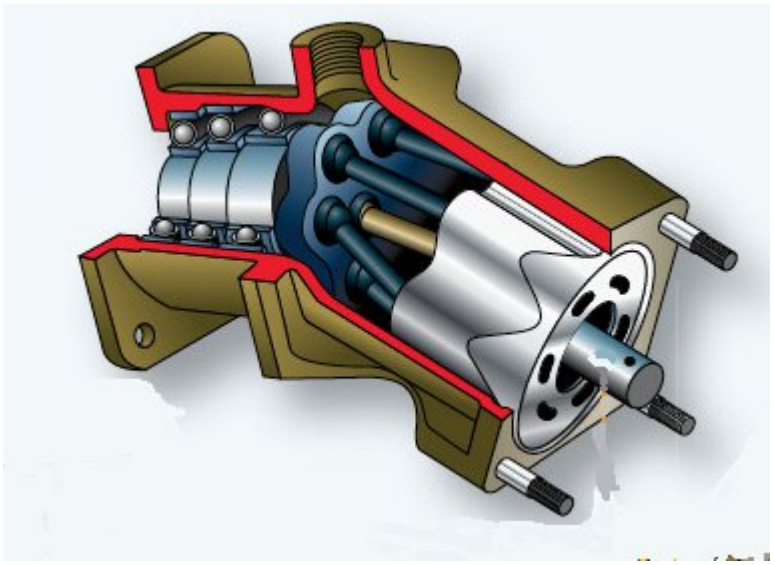
92. The valve shown in the figure is a throttling valve. Which other type of valve has basically the same function?



- (a) Check valve
- (b) Restrictor
- (c) Pressure relief valve

If choice b is selected set score to 1.

93. Which type of actuator operates on the principle shown in the figure?



- o (a) Vane type motor
- • (b) bent-axis rotary actuator
- o (c) double acting balanced actuator

If choice b is selected set score to 1.

94. What is the hydraulic oil temperature limit that most manufacturers employ?

- o (a) 50 degrees Celsius
- • (b) 100 degrees Celsius
- o (c) 250 degrees Celsius

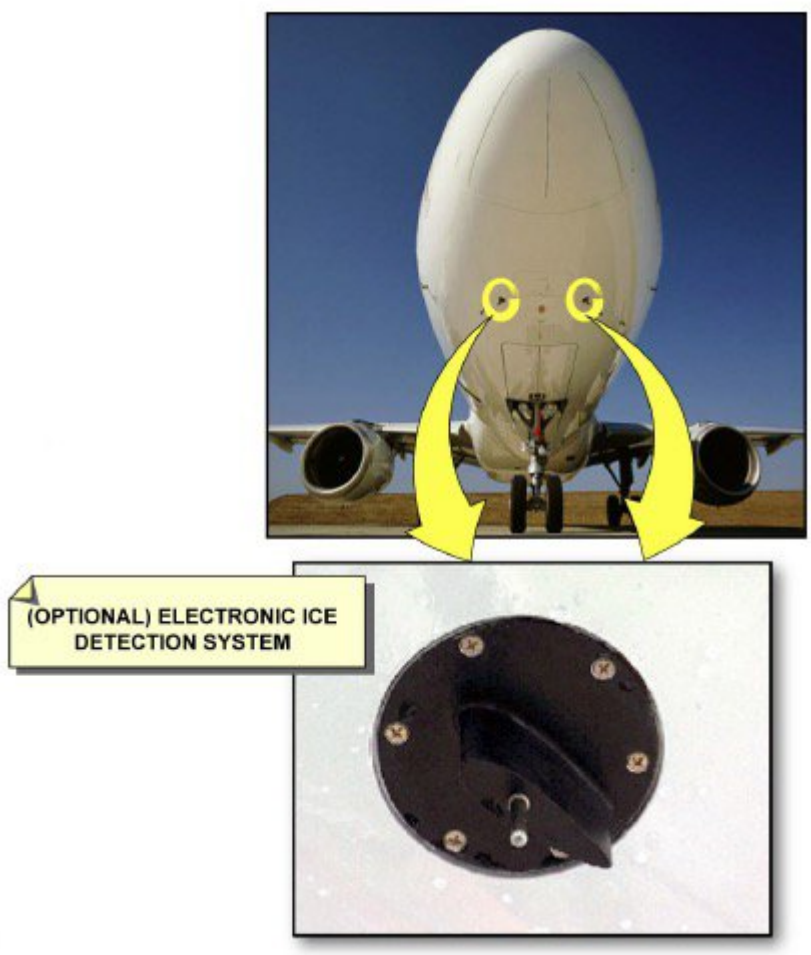
If choice b is selected set score to 1.

95. What triggers the ice detection warning on a serrated rotor ice detector?

- o (a) A decrease in temperature of the rotor caused by the ice buildup, triggering a temperature sensitive switch which activates the ice warning
- o (b) An imbalance in the rotor, causing it the wobble slightly while rotating, triggering a switch, that then activates the ice warning
- • (c) An increase in torque to drive the rotor when it is covered with ice while the knife-edge shaves the ice off the surface. This torque increase triggers the ice warning.

If choice c is selected set score to 1.

96. The figure shows an electronic ice detector. What principle does it use to trigger an ice warning?



- o (a) Change in electrical resistance of the protruding probe
- • (b) Change in vibration frequency of the protruding probe
- o (c) Change in temperature of the protruding probe

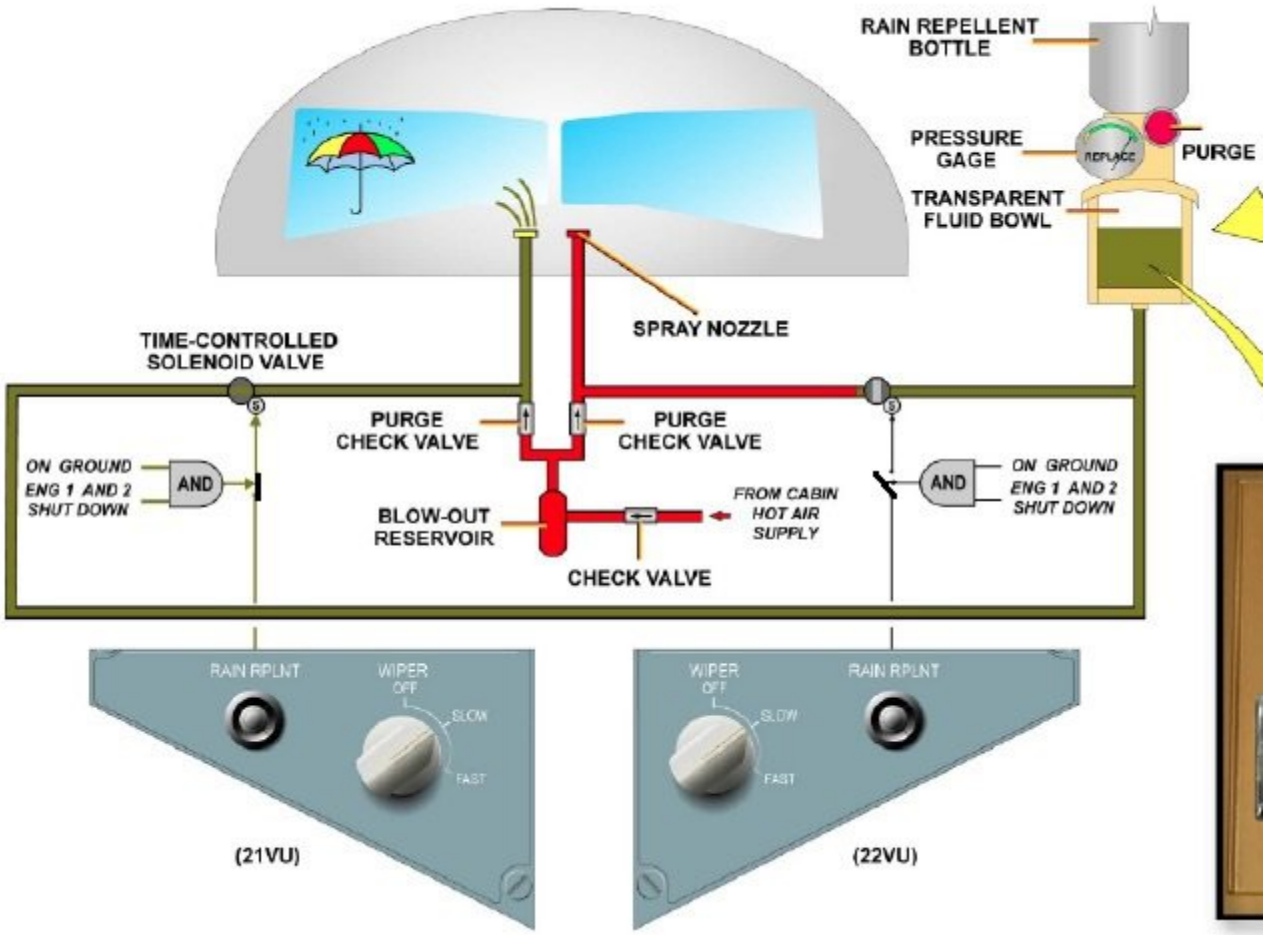
If choice b is selected set score to 1.

97. When switching on the engine anti-ice, the FAULT light comes on for a few seconds and then goes off. What does this indicate?

- • (a) The anti-ice valve has moved to the commanded position. This is the normal condition
- o (b) The anti-ice valve has had a intermittend fault, but has eventually moved to the commanded position. This is an abnormal condition.
- o (c) The anti-ice valve has failed to move to the commanded position. This is an abnormal condition

If choice a is selected set score to 1.

98. Using the figure, which conditions must be fullfilled to make it possible to operate the rain repellant system?



- o (a) Both engines running or aircraft in flight
- o (b) Both engines off and aircraft on the ground
- • (c) Both engines running and aircraft in flight

If choice c is selected set score to 1.

99. What precautions must be made before jacking up an aircraft with regards to drain mast heating?

- o (a) The drain masts must not be used
- • (b) The heating circuit breakers must be pulled
- o (c) The heating must be switched off

If choice b is selected set score to 1.

100. Why must you always wet the windscreen before opening the wipers?

- (a) To prevent damage to the windscreen.

o (b) To prevent unnecessary wear of the wiper blades.
o (c) To prevent wear on the drive mechanism of the wipers.

If choice a is selected set score to 1.

101. What type of landing gear is shown in the figure?

o (a) Direct acting suspension

- (b) Levered suspension

o (c) Semi-levered suspension

If choice b is selected set score to 1.

102. A full strut servicing must be performed on a gas/oil oleo. Must the aircraft be placed on jacks.?

o (a) Yes, with the wheels touching the ground

- (b) Yes, with the wheels clear off the ground

o (c) No, the servicing can be done with the aircaft resting on its wheels

If choice b is selected set score to 1.

103. Some extension/retraction systems have restricters fitted. Why is this?

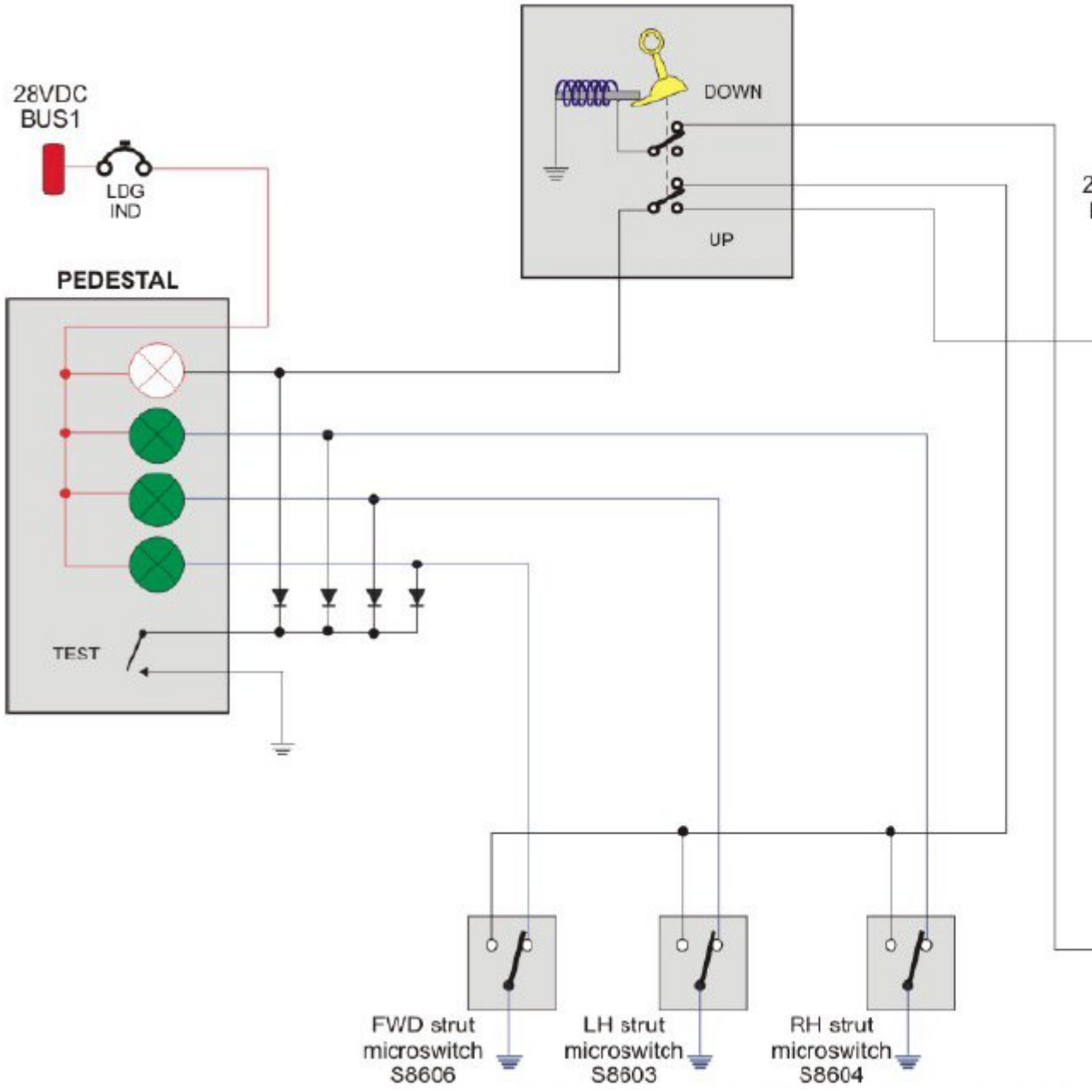
o (a) To prevent the gear locking up or down to violently.

- (b) To reduce the speed at which the gear retracts

o (c) To prevent the airflow pushing the gear down faster during extension

If choice b is selected set score to 1.

104. What is the function of the highlighted switch S8605 in the figure?



- (a) It is a switch that will allow the movement of the gear selector when the gear is down and the aircraft is on the ground

- (b) It is a switch that will de-energize a lock solenoid in the gear selector and prevent the movement of the gear selector when the aircraft is on the ground

- (c) It is a switch that will energize a lock solenoid in the gear selector and prevent the movement of the gear selector when the aircraft is on the ground

If choice b is selected set score to 1.

105. To set the parking brake on a helicopter with unpowered brake system, you must first:

- (a) Depress the brake pedals

o (b) Pull the parking brake handle to set the brakes
o (c) Ensure there is hydraulic pressure in the main hydraulic system

If choice a is selected set score to 1.

106. What is the purpose of the white paint mark on the tyre and rim as can be seen in the figure?

o (a) serves as an alignment mark to ensure the tyre is fitted in the same position when the wheel is re-assembled

- (b) serves as an indicator to show if the tyre has slipped on the rim

o (c) Serves as an overheat indicaton. The paint is heat sensitive and changes color if it gets too hot.

If choice b is selected set score to 1.

107. Which of the following statements is true?

- (a) Tail skids are designed to protect the tail boom and tail rotors from impact with the ground during a flare maneuvre.

- o (b) Some helicopters have a movable tail skid.
- o (c) All helicopters are fitted with a tail skid.

If choice a is selected set score to 1.

108. What is shown in the figure?

- (a) A proximity sensor

- o (b) A weight on wheel microswitch
- o (c) A squat switch

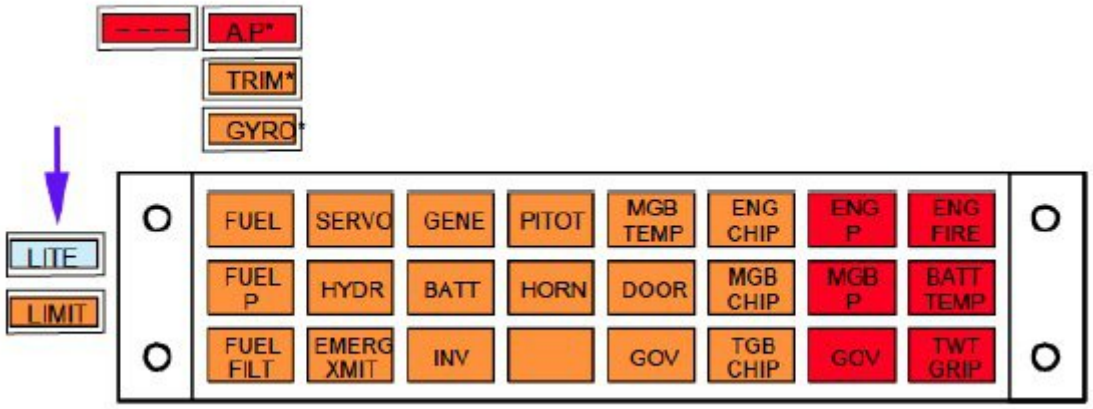
If choice a is selected set score to 1.

109. What is the purpose of a "Bear paw" (See the figure)?

- o (a) Serves as a mounting base for maneuvering wheels
- • (b) Prevents the skis from sinking in soft ground
- o (c) Stabilizes the helicopter in flight

If choice b is selected set score to 1.

110. Some helicopters have a "LITE" annunciator in the cockpit. What is the purpose of this annunciator (See the figure).



- o (a) It warns the pilot that the landing light is extended
- o (b) It warns the pilot that the landing light has failed
- • (c) It warns the pilot that the landing light is switched on

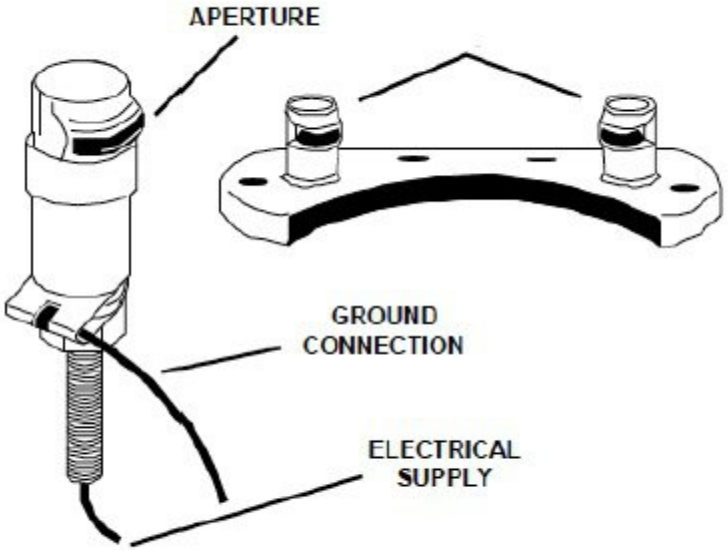
If choice c is selected set score to 1.

111. What are the differences between LED position lights compared to incandescent position lights

- o (a) LED's are only alowed for daylight (VFR) flights.
- • (b) LED's are cheaper, lighter and produce a brighter light.
- o (c) LED's are less power hungry but don't last so long.

If choice b is selected set score to 1.

112. What is the name of the lighting shown in the figure?



- o (a) Switch lights
- o (b) Wedge lighting

- • (c) Pillar and bridge lights

If choice c is selected set score to 1.

113. Some helicopters have an immersion sensor located on the lower and upper fuselage. What is the function of these sensors?

- • (a) To turn on the Emergency lights in case the helicopter rolls over

- o (b) To turn on the Emergency lights in case the helicopter sinks
- o (c) To turn on the Emergency distress beacon in case the helicopter sinks

If choice a is selected set score to 1.

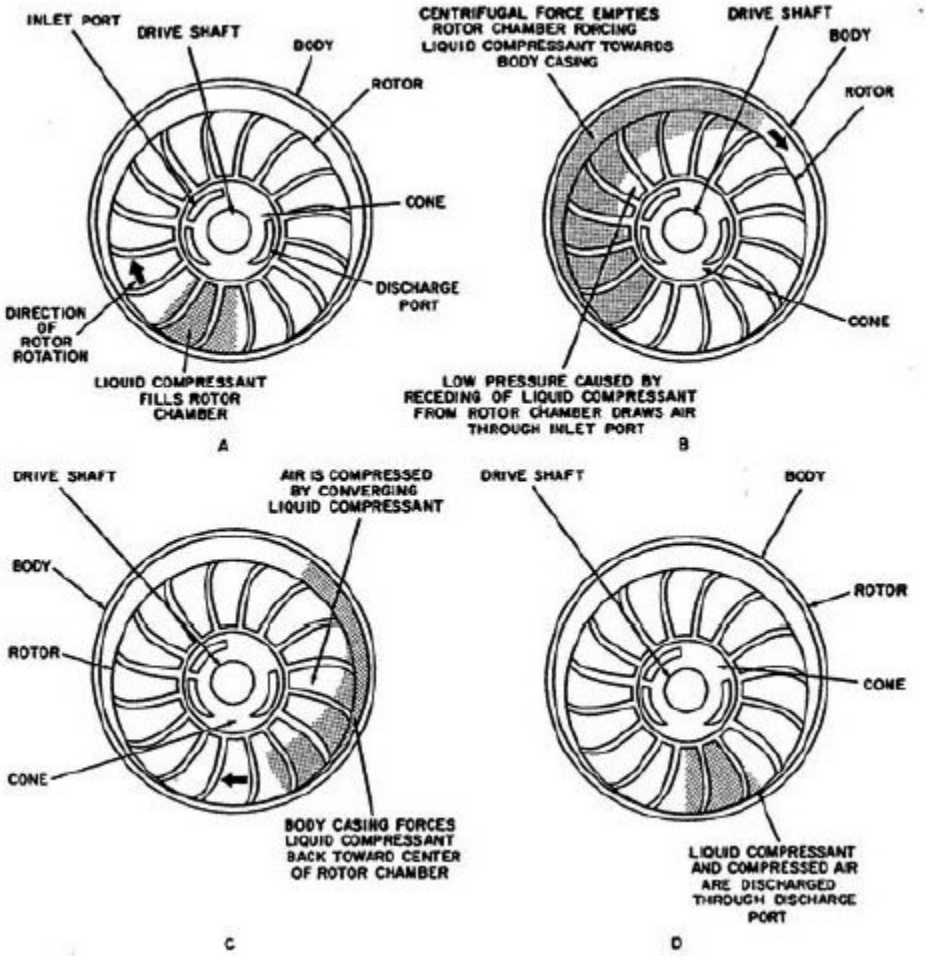
114. What makes a pneumatic system more light weight compared to a hydraulic system

- o (a) The tubes are thinner and therefor lighter
- o (b) The components are made of lighter material

- • (c) No need for return lines

If choice c is selected set score to 1.

115. What is the unit shown in the figure?



- (a) Vacuum pump

o (b) Turbo compressor
o (c) Vane type pump

If choice a is selected set score to 1.

116. What is important about the air entering a piston air pump?

- (a) It must be filtered.

o (b) It must be pressure controlled.
o (c) It must be temperature controlled.

If choice a is selected set score to 1.

117. In a helicopter, what is bleed air mostly used for?

o (a) Engine starting
o (b) Windscreen anti-icing

- (c) Cabin heating

If choice c is selected set score to 1.

118. A HELIONIX aircraft management Computer consists of:

- o (a) 2 identical channels with 4 major elements
- o (b) 3 independent channels with 2 major elements

- (c) 2 identical channels with 3 major elements

If choice c is selected set score to 1.

119. How are software uploads to the aircraft management computer (AMC) performed?

- (a) Via a data transfer device (DTD) to both AMCs

- o (b) Via an optic fiber port in the AMC and a laptop
- o (c) Directly into the computer via a card reader slot

If choice a is selected set score to 1.

120. Integrated modular avionics (IMA) software is:

- o (a) Universal to all helicopters fitted with the same type of IMA

- (b) Specific to type and model of helicopter

- o (c) Always specific to each individual helicopter

If choice b is selected set score to 1.

121. In what type of databus are the connectors in the figure used?

- o (a) Fibre-optic
- • (b) Ethernet
- o (c) ARINC 429

If choice b is selected set score to 1.

122. Which page in the Central maintenance system shows the actual flight control trim motor positions and the current condition of the control system?

- o (a) System diagnostics menu
- o (b) Test status and results page
- • (c) Synoptics page

If choice c is selected set score to 1.

123. When data loading is performed to the FMS, what happens to the software that was uploaded?

- o (a) Updates the applicable unit
- o (b) Is transferred to the applicable unit, updates it and is stored in the unit as a backup
- • (c) Is transferred to the applicable unit, updates it and the old data are stored as back-up.

If choice c is selected set score to 1.

124. What type of printer is generally used for the on board maintenance system?

- (a) Thermal printer

o (b) Matrix printer
o (c) Ink jet printer

If choice a is selected set score to 1.

125. Where is HUMS data stored?

o (a) In the digital acquisition unit

- (b) In the Data transfer device (DTD)

o (c) In the central maintenance computer

If choice b is selected set score to 1.

126. The Open Data Network (ODN) is displayed with dark blue arrows. Which component belongs to this system?

- (a) PES (Passenger Entertainment System).

o (b) EFBEU (Electronic Flight Bag Electronic Unit).
o (c) IMA (Integrated Modular Avionics).

If choice a is selected set score to 1.

127. A Class 3 electronic flight bag is:

- (a) Fitted to the aircraft with independent displays

o (b) Integrated into the aircrafts avionics systems using the main multifunction displays
o (c) Portable unit

If choice a is selected set score to 1.

128. On a helicopter, which network can be accessed wireles?

o (a) Isolated date network

- (b) Both open and isolated data networks

o (c) Open data network

If choice b is selected set score to 1.

If assessment score is 75% to 100% Pass
If assessment score is 0% to 74% Fail