

# INSTRUMENTATION - AEROPLANES

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1117	22	The red pointer which is normally on the red line on the EGT (Exhaust Gas Temperature) indicators:	allows the display of the parameter value to be adopted during take-off.	shows the vibration level of the engine under consideration.	moves when the corresponding value is exceeded and remains positioned at the maximum value that has been reached.	shows the limit value not to be exceeded.							0	0	1	0
1118	22	A landing will be considered to be performed in the SEMI-AUTOMATIC mode when:  1- the autopilot maintains the airplane on the ILS beam until the decision height is reached then is disengaged automatically.  2- the autothrottle maintains a constant speed until the decision height is reached then is disengaged automatically.  3- the autopilot maintains the airplane on the ILS beam until the flare.  4- the autothrottle decreases the thrust when the height is approximately 30 ft.  5- the flare and the ground roll are performed automatically.	3, 4 and 5.	1 and 4.	2, 3 and 5.	1 and 2.							0	0	0	1
1119	22	When using the autopilot, the function of the pitch channel automatic trim is to:  1- cancel the hinge moment of the elevator  2- ease as much as possible the load of the servo-actuator  3- restore to the pilot a correctly trimmed airplane during the autopilot disengagement	1 and 2.	1, 2 and 3.	3.	1 and 3.							0	1	0	0
1120	22	Among the following functions of an autopilot, those related to the airplane guidance are:  1- pitch attitude holding  2- horizontal wing holding  3- indicated airspeed or Mach number holding  4- altitude holding  5- VOR axis holding	1, 3, 4 and 5.	3, 4 and 5.	1, 2, and 6.	1, 2, 3 and 6.							0	1	0	0
1121	22	Among the following functions of an autopilot, those related to the airplane stabilization are:  1- pitch attitude holding  2- horizontal wing holding  3- displayed heading or inertial track holding  4- indicated airspeed or Mach number holding  5- yaw damping	2, 4, and 5.	1, 2 and 5.	1, 2, 3 and 6.	3, 4, 5 and 6.							0	1	0	0

1122	22	A pitot blockage of both the ram air input and the drain hole with the static port open causes the airspeed indicator to :	read a little high.	read a little low.	freeze at zero.	react like an altimeter.			0	0	0	1
1123	22	A pitot tube covered by ice which blocks the ram air inlet will affect the following instrument (s) :	airspeed indicator, altimeter and vertical speed indicator.	airspeed indicator only.	altimeter only.	vertical speed indicator only.			0	1	0	0
1124	22	The altimeter is fed by :	differential pressure	static pressure	dynamic pressure	total pressure			0	1	0	0
1125	22	The vertical speed indicator (VSI) is fed by :	differential pressure	static pressure	dynamic pressure	total pressure			0	1	0	0
1126	22	The float type fuel gauges provide information on:	mass whose indication varies with the temperature of the fuel.	mass whose indication is independent of the temperature of the fuel.	volume whose indication varies with the temperature of the fuel.	volume whose indication is independent of the temperature of the fuel.			0	0	1	0
1127	22	Torque can be determined by measuring the :	oil pressure at the fixed crown of an epicycloidal reducer of the main engine gearbox.	phase difference between 2 impulse tachometers attached to a transmission shaft.	frequency of an impulse tachometer attached to a transmission shaft.	quantity of light passing through a rack-wheel attached to a transmission shaft.			1	0	0	0
1128	22	A "close traffic advisory" is displayed on the display device of the TCAS 2 (Traffic Collision Avoidance System) by :	a blue or white full lozenge.	a red full square.	a blue or white empty lozenge.	an orange full circle.			0	0	1	0
1129	22	A "resolution advisory" (RA) is represented on the display system of the TCAS 2 (Traffic Collision Avoidance System) by a :	blue or white empty lozenge.	red full circle.	red full square.	blue or white full lozenge.			0	0	1	0
1130	22	An "intruding traffic advisory" is represented on the display system of the TCAS 2 (Traffic Collision Avoidance System) by displaying :	a red full square.	a yellow full circle.	a blue or white empty lozenge.	a blue or white full lozenge.			0	1	0	0
1131	22	On a TCAS 2 (Traffic Collision Avoidance System) the preventive "resolution advisory" (RA) is a "resolution advisory":	that advises the pilot to avoid certain deviations from the current vertical rate but does not require any change to be made to that rate.	asking the pilot to modify effectively the vertical speed of his aircraft.	asking the pilot to modify the heading of his aircraft.	asking the pilot to modify the speed of his aircraft.			1	0	0	0
1132	22	On a TCAS2 (Traffic Collision Avoidance System), a corrective "resolution advisory" (RA) is a "resolution advisory":	asking the pilot to modify effectively the vertical speed of his aircraft.	which does not require any action from the pilot but on the contrary asks him not to modify his current vertical speed rate.	asking the pilot to modify the heading of his aircraft.	asking the pilot to modify the speed of his aircraft.			1	0	0	0

1133	22	When only one autopilot is used for climbing, cruising and approach, the system is considered:	"fail survival" or without failure effect with function always ensured.	"fail safe" with failure effect without disconnection.	"fail soft" or with minimized failure effect.	"fail passive" or without failure effect but with disconnection.			0	0	1	0
1134	22	The Altitude Select System:	Disengages autopilot Auto Trim at selected altitude	Is annunciated by light and/or sound when airplane is approaching selected altitude	Illuminates a light when selected altitude is attained	Engages autopilot Auto Trim at selected altitude			0	1	0	0
1135	22	The purpose of Auto Trim function in autopilot is to :	tell the pilot when elevator trimming is required	trim throttles to obtain smooth engine power variation	control elevator trim tab in order to relieve elevator load	help Auto Pilot compensate for crosswind influence			0	0	1	0
1136	22	The purpose of Auto Throttle is:	automatic shut down of one engine at too high temperature	to deactivate manual throttles and transfer engine control to Auto Pilot	to synchronize engines to avoid "yawing"	to maintain constant engine power or airplane speed			0	0	0	1
1137	22	The capacity fuel gauges provide information:	on mass whose indication is independent of the temperature of the fuel.	on mass whose indication varies with the temperature of the fuel.	which is independent of the temperature of the fuel.	which varies with the temperature of the fuel.			1	0	0	0
1138	22	The diagram on annex 022-648A shows three gyro assemblies: A, B and C. Among these gyros,  -one is a roll gyro (noted 1)  -one is a pitch gyro (noted 2)  -one is a yaw gyro (noted 3)	1C, 2B, 3A	1B, 2A, 3C	1A, 2B, 3C	1B, 2C, 3A			0	0	0	1
1139	22	An autopilot capable of holding at least altitude and heading mode is compulsory:	for IFR or night flights with only one pilot.	on multipilot airplanes.	for VFR and IFR flights with only one pilot.	on airplanes over 5.7 t.			1	0	0	0
1140	22	If the static source of an altimeter becomes blocked during a descent the instrument will:	gradually indicate zero	under-read	indicate a height equivalent to the setting on the millibar subscale	continue to display the reading at which the blockage occurred			0	0	0	1
1141	22	The primary factor which makes the servo-assisted altimeter more accurate than the simple pressure altimeter is the use of:	a sub-scale logarithmic function	an induction pick-off device	more effective temperature compensating leaf springs	combination of counters/pointers			0	1	0	0

1142	22	If the static source to an altimeter becomes blocked during a climb, the instrument will:	continue to indicate the reading at which the blockage occurred	under-read by an amount equivalent to the reading at the time that the instrument became blocked	over-read	gradually return to zero					1	0	0	0	
1143	22	If the static source to an airspeed indicator (ASI) becomes blocked during a descent the instrument will:	read zero	continue to indicate the speed applicable to that at the time of the blockage	under-read	over-read						0	0	0	1
1144	22	When climbing at a constant Mach number below the tropopause, in ISA conditions, the Calibrated Airspeed (CAS) will:	decrease	increase at a linear rate	remain constant	increase at an exponential rate						1	0	0	0
1145	22	For a constant Calibrated Airspeed (CAS) and a level flight, a fall in ambient temperature will result in a:	lower True Airspeed (TAS) due to a decrease in air density	lower True Airspeed (TAS) due to an increase in air density	higher True Airspeed (TAS) due to a decrease in air density	higher True Airspeed (TAS) due to an increase in air density						0	1	0	0
1146	22	When descending through an isothermal layer at a constant Calibrated Airspeed (CAS), the True Airspeed (TAS) will:	decrease	increase at a linear rate	remain constant	increase at an exponential rate						1	0	0	0
1147	22	A leak in the pitot total pressure line of a non-pressurized aircraft to an airspeed indicator would cause it to:	under-read.	over-read.	over-read in a climb and under-read in a descent.	under-read in a climb and over-read in a descent.						1	0	0	0
1148	22	The airspeed indicator circuit consists of pressure sensors. The pitot tube directly supplies:	the total pressure	the static pressure	the total pressure and the static pressure	the dynamic pressure						1	0	0	0
1149	22	An aeroplane is in steady climb. The autothrottle maintains a constant calibrated airspeed. If the total temperature remains constant, the Mach number :	decreases.	remains constant.	decreases if the static temperature is lower than the standard temperature.	increases.						0	0	0	1
1150	22	The indications on a directional gyroscope or gyrocompass are subject to errors, due to:  1- rotation of Earth. 2- aeroplane motion on Earth. 3- lateral and transversal aeroplane bank angles. 4- north change	2,3,5.	1,2,3,5.	3,4,5.	1,2,4,5.						0	1	0	0
1151	22	For an aircraft flying a true track of 360° between the 005°S and 005°N parallels, the precession error of the directional gyro due to apparent drift is equal to:	depends only on the aircraft's ground speed	0°/hour	+5°/hour	-5°/hour						0	1	0	0

1152	22	While inertial platform system is operating on board an aircraft, it is necessary to use a device with the following characteristics, in order to keep the vertical line with a pendulous system:	without damping and a period of about 84 seconds	with damping and a period of 84 seconds	with damping and a period of about 84 minutes.	without damping and a period of about 84 minutes			0	0	1	0
1153	22	In order to align a strapdown inertial unit, it is required to insert the local geographical coordinates. This is necessary to:	Position the computing trihedron with reference to earth.	Check operation of laser gyros.	Determine magnetic or true heading.	Re-erect laser gyros.			1	0	0	0
1154	22	An automatic pilot is a system which can ensure the functions of:	piloting from take-off to landing without any action from the human pilot.	piloting and guidance of an aircraft in both the horizontal and vertical planes.	piloting only.	navigation.			0	1	0	0
1155	22	An aeroplane is equipped with a Flight Director (with crosshair trend bars), heading 270°, in HDG mode (heading hold). A new heading, of 360°, is selected the vertical trend bar :	deviates to its right stop as long as the aeroplane is more than 10° off the new selected heading.	deviates to the right and will be centred as soon as you roll the aircraft to the bank angle calculated by the flight director.	deviates to the right and remains in that position until the aircraft has reached heading 360°.	disappears, the new heading selection has deactivated the HDG mode.			0	1	0	0
1156	22	Alarms are standardised and follow a code of colours. Those requiring action but not immediately, are signalled by the colour:	flashing red	amber	red	green			0	1	0	0
1157	22	Among the errors of a magnetic compass, are errors:	in North seeking, due to bank angle and magnetic heading	due to cross-wind gusts particularly on westerly or easterly headings	due to Schuler type oscillations	of parallax, due to oscillations of the compass rose			1	0	0	0
1158	22	On an aeroplane equipped with a constant speed propeller, the RPM indicator enables :	control of power.	selection of engine RPM.	on a twin-engine aeroplane, automatic engine synchronisation.	control of the propeller regulator and the display of propeller RPM.			0	0	0	1
1159	22	A stall warning system is based on a measure of :	groundspeed.	aerodynamic incidence.	airspeed.	attitude.			0	1	0	0
1160	22	When the auto-pilot is engaged; the role of the automatic trim is to:	relieve the pressure on the control column and return, the aircraft in-trim at A.P. disconnect	react to altitude changes in Altitude Hold mode	synchronize the longitudinal loop	relieve the A.P. servo motor and return the aircraft in-trim at A.P. disconnect			0	0	0	1

1161	22	The command functions of an autopilot include, among others, the holding of :  1- vertical speed 2- altitude 3- attitude 4- bank	2 - 3 - 4	1 - 2 - 5	1 - 2 - 3 - 5	3 - 5						0	1	0	0
1162	22	Machmeter readings are subject to:	temperature error.	setting error.	position pressure error	density error.						0	0	1	0
1163	22	Sound propagates through the air at a speed which only depends on :	temperature and the pressure.	pressure.	density.	temperature.						0	0	0	1
1164	22	The GPWS (Ground Proximity Warning System) releases a warning in the following cases :  1- excessive rate of descent 2- excessive ground proximity rate 3- loss of altitude after take-off or go-around 4- abnormal gear/flaps configuration 5- excessive deviation under the glidepath	1, 2, 3, 4, 5	2, 4, 5, 6	1, 2, 3, 4, 5, 6	3, 4, 5, 6						1	0	0	0
1165	22	In order to know in which mode the autothrottles are engaged, the crew will check the :	ND (Navigation Display).	TCC (Thrust Control Computer).	throttles position.	PFD (Primary Flight Display)						0	0	0	1
1166	22	According to the JAR-OPS regulations, the Cockpit Voice Recorder of a 50 seat multi-engined aircraft having been granted the airworthiness certificate after 1st April 1998 will record:  1- the radiotelephonic communications transmitted or received by the cockpit crew 2- the audio environment of the cockpit 3- the cabin attendants communications in the cabin via the interphone 4- the flight crew members communications in the cockpit via the interphone 5- the flight crew members communications in the cockpit via the public address system	1,2,3,4,5,6	1	1,3,4,5	1,2,4,5,6						0	0	0	1
1167	22	According to the JAR-OPS regulations, the Cockpit Voice Recorder of a 50 seat multi-engined aircraft, having been granted an airworthiness certificate after 1st April 1998, shall start recording :	Automatically when the wheels leave the ground until the moment when the wheels touch the ground again.	From the first radio contact with Air Traffic Control until radio shutdown after the flight.	When the pilot selects the "CVR: ON" during engine start until the pilot selects the "CVR: OFF" during the engine shutdown.	Automatically prior to the aircraft moving under its own power until flight completion when the aircraft is no longer able to move under its own power.						0	0	0	1

1168	22	The TCAS 2 (Traffic Collision Avoidance System) provides :  1- traffic information (TA: Traffic Advisory)  2- horizontal resolution (RA: Resolution Advisory)  3- vertical resolution (RA: Resolution Advisory)  4- ground proximity warning	1, 2, 3	1, 2, 3, 4	1, 3	1, 2					0	0	1	0
1169	22	The aim of the flight director is to provide information to the pilot:	allowing him to return to a desired path according to a 45° intercept angle.	allowing him to return to a desired path according to a 30° intercept angle.	allowing him to return to a desired path in an optimal way.	about his position with regard to a radioelectric axis.					0	0	1	0
1170	22	(For this question use annex 022-9768A)  An aircraft is under guidance mode following a VOR radial. From the ADI and HSI information represented in the enclosed annex, it is possible to deduce that the aircraft is :	located to the left side of the selected radial.	located to the right side of the selected radial.	experiencing rightside wind.	experiencing a leftside wind.					0	0	0	1
1171	22	The correction of the control surface deflection made by the automatic pilot calculator in order to stabilize the longitudinal attitude will be all the more significant as the :  1- difference between the reference attitude and the instantaneous attitude is high.  2- rate of change of the difference between the reference attitude and the instantaneous attitude is high.  3- temperature is low.  4- pressure altitude is high.	1,2.	1, 2, 3, 4.	1, 2, 3.	2, 3, 4.					1	0	0	0
1172	22	The correction of the control surface deflection made by the auto-pilot calculator in order to keep a given altitude will be all the more significant when the :  1- difference between the attitude necessary to keep the given or reference altitude and the instantaneous attitude is high.  2 - variation speed of the difference between the attitude necessary to maintain the altitude and the instantaneous attitude is high.  3 - difference between the altitude of reference and the instantaneous altitude is high.  4 - variation speed of the difference between the reference altitude and the instantaneous altitude is high.	1, 2, 3 and 4.	1 and 2.	3 and 4.	1, 2 and 3.					1	0	0	0
1173	22	(For this question use annex 022-9771A)  The atmospheric pressure at FL 70 in a "standard + 10"	781.85 hPa.	942.13 hPa.	1 013.25 hPa.	644.41 hPa.					1	0	0	0
1174	22	The Ground Proximity Warning System (GPWS) is a system working according to a height span ranging from :	30 ft to 5 000 ft	the ground to 500 ft	50 ft to 2 500 ft	the ground to 1 000 ft					0	0	1	0

1175	22	All the anemometers are calibrated according to:	Bemouilli's limited formula which takes into account the air compressibility.	St-Venant's formula which considers the air as an incompressible fluid.	Bemouilli's limited formula which considers the air as an incompressible fluid.	St-Venant's formula which takes into account the air compressibility.					0	0	0	1
1176	22	In the building principle of a gyroscope, the best efficiency is obtained through the concentration of the mass :	close to the axis and with a low rotation speed.	on the periphery and with a high rotation speed.	close to the axis and with a high rotation speed.	on the periphery and with a low rotation speed.					0	1	0	0
1177	22	The velocity of sound at the sea level in a standard atmosphere is:	644 kt.	332 kt.	661 kt.	1059 kt.					0	0	1	0
1178	22	In a standard atmosphere and at the sea level, the calibrated airspeed (CAS) is :	lower than the true airspeed (TAS).	equal to the true airspeed (TAS).	independent of the true airspeed (TAS).	higher than the true airspeed (TAS).					0	1	0	0
1179	22	The GPWS calculator receives the following signals :  1 - vertical speed 2 - radio altimeter height 3 - pressure altitude 4 - glidepath deviation 5 - gear and flaps position	2,3,4,6	1,2,4,5	1,3,4,5,6	1,2,5,6					0	1	0	0
1180	22	The GPWS calculator is able to operate in the following modes :  1- excessive descent rate 2- excessive rate of terrain closure 3- excessive angle of attack 4- too high descent attitude 5- loss of altitude after take-off	1,2,4,6,7	3,4,5,6	2,3,5,7	1,2,5,6,7					0	0	0	1
1181	22	The GPWS (Ground Proximity Warning System) is active for a height range from:	50 ft to 5 000 ft measured by the radio altimeter.	50 ft to 2 500 ft measured by the radio altimeter.	0 ft to 2 500 ft measured by the radio altimeter.	0 ft to 5 000 ft measured by the radio altimeter.					0	1	0	0
1182	22	For capturing and keeping a preselected magnetic heading, the flight director computer takes into account:  1- track deviation 2- rate of track closure 3- rate of change of track closure 4- wind velocity given by the inertial reference unit	1,2,4	2,3,4	1,3,4	1,2,3					0	0	0	1



1183	22	The TCAS 1 (Traffic Collision Avoidance System) provides :  1- traffic information  2- horizontal resolution (RA: Resolution Advisory)  3- vertical resolution (RA: Resolution Advisory)  4- ground proximity warning	1, 2, 3	1, 2, 3, 4	1	1, 2				0	0	1	0
1184	22	The angle of attack transmitter provides an electric signal varying with:  1- the angular position of a wind vane  2- the deviation between the airplane flight attitude and the path calculated by the inertial unit  3- a probe differential pressure depending on the variation of the angle of attack	1, 2 and 3.	1.	2 and 3.	1 and 3.				0	0	0	1
1185	22	In a selected axis capture mode, the autopilot gives a bank attitude input :	proportional to the deviation between the selected heading and the current heading but not exceeding a given value.	of a fixed value equal to 27°.	of a fixed value equal to 20°.	proportional to the aircraft true airspeed but not exceeding a given value.				1	0	0	0
1186	22	In transport airplanes, the temperatures are generally measured with :  1- resistance thermometers  2- thermocouple thermometers  3- reactance thermometers  4- capacitance thermometers	1, 3, 4, 5	1, 2, 5	2, 3	1, 2				0	0	0	1
1187	22	The QNH is by definition the value of the:	altimeter setting so that the needles indicate zero when the aircraft is on ground at the location for which it is provided.	atmospheric pressure at the level of the ground overflown by the aircraft.	altimeter setting so that the needles of the altimeter indicate the altitude of the location for which it is given.	atmospheric pressure at the sea level of the location for which it is given.				0	0	1	0
1188	22	A synchroscope is used on aircraft to:	reduce the vibration of each engine.	reduce the rpm of each engine.	achieve optimum control of on-board voltages.	set several engines to the same speed.				0	0	0	1

1189	22	<p>A landing will be considered to be performed in the AUTOMATIC mode when:</p> <p>1- the autopilot maintains the airplane on the ILS beam until the decision height is reached then is disengaged automatically.</p> <p>2- the autothrottle maintains a constant speed until the decision height is reached then is disengaged automatically.</p> <p>3- the autopilot maintains the airplane on the ILS beam until the flare.</p> <p>4- the autothrottle decreases the thrust when the height is approximately 30 ft.</p> <p>5- the flare and the ground roll are performed automatically.</p>	1 and 2.	2, 3 and 5.	1 and 4.	3, 4 and 5.						0	0	0	1		
1190	22	When the intruding aircraft is equipped with a transponder without altitude reporting capability, the TCAS (Traffic Collision Avoidance System) issues a :	"traffic advisory" and horizontal "resolution advisory".	"traffic advisory", vertical and horizontal "resolution advisory".	"traffic advisory" only.	"traffic advisory" and vertical "resolution advisory".								0	0	1	0
1191	22	In automatic landing mode, when the 2 autopilots are used, the system is considered:	"fail survival" or without failure effect with function always ensured.	"fail soft" or with minimized failure effect.	"fail passive" or without failure effect but with disconnection.	"fail hard" or with failure effect and disconnection.								1	0	0	0
1192	22	In automatic landing mode, in case of failure of one of the two autopilots, the system is considered:	"fail soft" with minimized failure effect.	"fail passive" or without failure effect but with disconnection.	"fail survival" or without failure effect with function always ensured.	"fail hard" or without failure effect and disconnection.								0	1	0	0
1193	22	The flight director indicates the :	optimum path at the moment it is entered to reach a selected radial.	path permitting reaching a selected radial in minimum time.	path permitting reaching a selected radial over a minimum distance.	optimum instantaneous path to reach selected radial.								0	0	0	1
1194	22	<p>The stall warning system receives information about the :</p> <p>1- airplane angle of attack</p> <p>2- airplane speed</p> <p>3- airplane bank angle</p> <p>4- airplane configuration</p> <p>5- load factor on the airplane</p>	1, 2, 3, 4, 5	2, 3, 4, 5	1, 3, 5	1, 4								0	0	0	1
1195	22	During an automatic landing, from a height of about 50 ft the:	autopilot maintains a vertical speed depending on the radio altimeter height.	glideslope mode is disconnected and the airplane continues its descent until landing.	autopilot maintains an angle of attack depending on the radio altimeter height.	Loc and Glideslope modes are disconnected and the airplane carries on its descent until landing.								1	0	0	0

1196	22	The TCAS (Traffic Collision Avoidance System) computer receives information :  1- about the pressure altitude through the mode S transponder  2- from the radio-altimeter  3- specific to the airplane configuration  4- from the inertial units	1, 2, 4	1, 2	1, 2, 3	1, 2, 3, 4					0	0	1	0
1197	22	An autopilot is selected "ON" in mode "altitude hold," the pilot alters the barometric pressure set on the sub-scale of his altimeter the:	aircraft will remain at the same altitude, the autopilot takes its pressure information from the altimeter corrected to standard pressure, 1013.25 hPa	aircraft will climb or descend in the sense of the change, the autopilot takes its pressure information from the altimeter	mode altitude hold will disengage	aircraft will remain at the same altitude, the autopilot takes its pressure information from the static source					0	0	0	1
1198	22	The white sector of the arc of a temperature gauge corresponds to:	an exceptional operating range.	a forbidden operating range.	a special operating range.	a normal operating range.					0	0	1	0
1199	22	On a modern aircraft, the flight director modes are displayed on the:	control panel of the flight director only.	upper strip of the PFD (Primary Flight Display).	upper strip of the ND (Navigation Display).	upper strip of the ECAM (Electronic Centralized A/C Management).					0	1	0	0
1200	22	All the last generation aircraft use flight control systems. The Flight Management System (FMS) is the most advanced system ; it can be defined as a:	management system optimized in the horizontal plane	global 2-D Flight Management System	global 3-D Flight Management System	management system optimized in the vertical plane					0	0	1	0
1201	22	When the intruding aircraft is equipped with a serviceable mode C transponder, the TCAS II (Traffic Collision Avoidance System) generates a :	"traffic advisory", vertical and horizontal "resolution advisory".	"traffic advisory" and vertical "resolution advisory".	"traffic advisory" and horizontal "resolution advisory".	"traffic advisory" only.					0	1	0	0
1202	22	The airspeed indicator of an aircraft is provided with a moving red and white hatched pointer. This pointer indicates the:	speed indicated on the autothrottle control box, versus temperature	speed indicated on the autothrottle control box versus altitude	maximum speed in VMO operation versus altitude	maximum speed in VMO operation, versus temperature					0	0	1	0
1203	22	An aeroplane is in steady cruise at flight level 270. The autothrottle maintains a constant calibrated airspeed. If the total temperature decreases, the Mach number :	decreases.	increases if the outside temperature is higher than the standard temperature, decreases if lower.	remains constant.	increases.					0	0	1	0
1204	22	At sea level, on a typical servo altimeter, the tolerance in feet from indicated must not exceed :	+/-60 feet	+/-75 feet	+/-30 feet	+/-70 feet					1	0	0	0

1205	22	The temperature measured by the CHT (Cylinder Head temperature) probe is the :	temperature within the hottest cylinder, depending on its position in the engine block.	average temperature within the whole set of cylinders.	temperature of the exhaust gases.	temperature of the carburator to be monitored when the outside air temperature is between -5°C and 10°C.					1	0	0	0
1206	22	A transport airplane has to be equipped with an altitude warning device. This system will warn the crew about :  1 - getting close to the preselected altitude , during both climb and descent. 2 - getting close to the preselected altitude , during climb only. 3 - the loss of altitude during take-off or missed approach. 4 - a wrong landing configuration. 5 - a variation higher or lower than a preselected altitude.  The combination regrouping the correct statements is:	2	1,3,4	1,5	3,4					0	0	1	0
1207	22	During the approach, a crew reads on the radio altimeter the value of 650 ft. This is an indication of the true:	height of the aircraft with regard to the runway.	altitude of the aircraft.	height of the lowest wheels with regard to the ground at any time.	height of the aircraft with regard to the ground at any time.					0	0	1	0
1208	22	A transport airplane is compelled to carry on board a Ground Proximity Warning System (GPWS). This system will warn the crew in case of :  1 - keeping the altitude at a lower level than the one shown in the flight plan entered in the FMS. 2 - dangerous ground proximity. 3 - loss of altitude during take-off or missed approach. 4 - wrong landing configuration. 5 - descent below glidepath, within limits.	2,5	2,3,4,5	2	1,3,4					0	1	0	0
1209	22	The turn rate indicator uses a gyroscope:  1 - with one degree of freedom. 2 - with two degrees of freedom 3 - the frame of which is supported by two return springs. 4 - the spinning wheel axis of which is parallel to the pitch axis. 5 - the spinning wheel axis of which is parallel to the yawing axis. 6 - the spinning wheel axis of which is horizontal.	1-3-4	2-5	1-6	1-3					0	0	0	1

1210	22	In case of accidental closing of an aircraft's left static pressure port (rain, birds), the altimeter:	underreads the altitude.	overreads the altitude in case of a sideslip to the left and displays the correct information during symmetric flight.	overreads the altitude in case of a side-slip to the right and displays the correct information during symmetric flight.	keeps on providing reliable reading in all situations					0	1	0	0
1211	22	An aircraft is flying at a 120 kt true airspeed (VV), in order to achieve a rate 1 turn, the pilot will have to bank the aircraft at an angle of:	18°.	12°.	36°.	30°.					1	0	0	0
1212	22	The yellow sector of the temperature gauge corresponds to:	a frequent operating range.	a forbidden operating range.	an exceptional operating range.	a normal operating range.					0	0	1	0
1213	22	The pendulum type detector system of the directional gyro feeds :	a torque motor on the sensitive axis	2 torque motors arranged horizontally	a levelling erection torque motor	a nozzle integral with the outer gimbal ring					0	0	1	0
1214	22	The altitude indicated on board an aircraft flying in an atmosphere where all atmosphere layers below the aircraft are warm is:	equal to the standard altitude.	higher than the real altitude.	the same as the real altitude.	lower than the real altitude.					0	1	0	0
1215	22	Mach Trim is a device to compensate for :	weight reduction resulting from fuel consumption during the cruise	backing of the aerodynamic center at high Mach numbers by moving the elevator to nose-up	the effects of fuel transfer between the main tanks and the tank located in the horizontal tail	the effects of temperature variation during a climb or descent at constant Mach					0	1	0	0
1216	22	In some configurations, modern aircraft do not respect the regulatory margins between stall and natural buffet.  The warning system supplies the corresponding alarm. The required margin related to the stall speed is:	10%	3%	7%	5%					0	0	1	0
1217	22	The Mach number is :	the ratio of the aircraft true airspeed to the sonic velocity at the altitude considered	a direct function of temperature ; it varies in proportion to the square root of the absolute temperature	the ratio of the indicated airspeed to the sonic velocity at the altitude considered	the ratio of the aircraft conventional airspeed to the sonic velocity at the altitude considered					1	0	0	0
1218	22	The use of the TCAS (Traffic Collision Avoidance System) for avoiding an aircraft in flight is now general. TCAS uses for its operation :	both the replies from the transponders of other aircraft and the ground-based radar echoes	the replies from the transponders of other aircraft	the echos from the ground air traffic control radar system	the echos of collision avoidance radar system especially installed on board					0	1	0	0

1219	22	Different pressure sensors are used according to the intensity of the pressure measured (low, medium or high)  Classify the following sensors by order of increasing pressure for which they are suitable :  1- bellows type  2- Bourdon tube type	2,1,3	3,1,2	1,2,3	3,2,1						0	1	0	0
1220	22	The measurement of the turbine temperature or of the EGT (Exhaust Gas Temperature) is carried out at the :	combustion chamber outlet.	combustion chamber intake.	high pressure chamber intake.	high pressure turbine outlet.						0	0	0	1
1221	22	The sensors used to measure the exhaust gas temperature on an aircraft equipped with turbojets are:	thermocouples.	based on metallic parts whose expansion/contraction is measured.	based on metallic conductors whose resistance increases linearly with temperature.	capacitors whose capacity varies proportionally with temperature.						1	0	0	0
1222	22	The aircraft radio equipment which emits on a frequency of 4400 MHz is the :	weather radar.	primary radar.	radio altimeter.	high altitude radio altimeter.						0	0	1	0
1223	22	A rate integrating gyro is a detecting element used in  1. An inertial attitude unit  2. An automatic pilot  3. A stabilizing servo system  4. An inertial navigation system	1,4.	1,2,3,4,5.	2,3,5.	2,3,4.						1	0	0	0
1224	22	In An Air Data Computer (ADC), aeroplane altitude is calculated from:	The difference between absolute and dynamic pressure at the fuselage	Measurement of outside air temperature (OAT)	Measurement of elapsed time for a radio signal transmitted to the ground surface and back	Measurement of absolute barometric pressure from a static source on the fuselage						0	0	0	1
1225	22	The gimbal error of the directional gyro is due to the effect of :	a bank or pitch attitude of the aircraft	an apparent weight and an apparent vertical	too slow precession on the horizontal gimbal ring	the aircraft's track over the earth						1	0	0	0
1226	22	An Air Data Computer (ADC) :	Measures position error in the static system and transmits this information to ATC to provide correct altitude reporting	Transforms air data measurements into electric impulses driving servo motors in instruments	Is an auxiliary system that provides altitude information in the event that the static source is blocked	Converts air data measurements given by ATC from the ground in order to provide correct altitude and speed information						0	1	0	0
1227	22	The directional gyro axis spins about the local vertical by 15°/hour :	in the latitude 30°	in the latitude 45°	on the equator	on the North pole						0	0	0	1
1228	22	The directional gyro axis no longer spins about the local vertical when it is located :	on the equator	in the latitude 30°	in the latitude 45°	on the North pole						1	0	0	0

1229	22	A gravity type erector is used in a vertical gyro device to correct errors on :	an artificial horizon	a directional gyro unit	a turn indicator	a gyromagnetic indicator			1	0	0	0
1230	22	When an aircraft has turned 90 degrees with a constant attitude and bank, the pilot observes the following on a classic artificial horizon :	too much nose-up and bank correct	too much nose-up and bank too high	too much nose-up and bank too low	attitude and bank correct			0	0	1	0
1231	22	When an aircraft has turned 360 degrees with a constant attitude and bank, the pilot observes the following on a classic artificial horizon :	too much nose-up and bank correct	too much nose-up and bank too high	attitude and bank correct	too much nose-up and bank too low			0	0	1	0
1232	22	When an aircraft has turned 270 degrees with a constant attitude and bank, the pilot observes the following on a classic artificial horizon :	too much nose-up and bank too high.	too much nose-up and bank too low.	attitude and bank correct.	too much nose-up and bank correct.			1	0	0	0
1233	22	The pressure altitude is the altitude corresponding :	in standard atmosphere, to the reference pressure Ps	in ambient atmosphere, to the pressure Ps prevailing at this point	in standard atmosphere, to the pressure Ps prevailing at this point	in ambient atmosphere, to the reference pressure Ps			0	0	1	0
1234	22	The response time of a vertical speed detector may be increased by adding a:	correction based on an accelerometer sensor.	bimetallic strip	return spring	second calibrated port			1	0	0	0
1235	22	The density altitude is :	the altitude of the standard atmosphere on which the density is equal to the actual density of the atmosphere	the temperature altitude corrected for the difference between the real temperature and the standard temperature	the pressure altitude corrected for the relative density prevailing at this point	the pressure altitude corrected for the density of air at this point			1	0	0	0
1236	22	The error in altimeter readings caused by the variation of the static pressure near the source is known as:	position pressure error.	barometric error.	instrument error.	hysteresis effect.			1	0	0	0
1237	22	Under normal operating conditions, when an aircraft is in a banked turn, the rate-of-turn indicator is a valuable gyroscopic flight control instrument ; when it is associated with an attitude indicator it indicates :  1. the angular velocity of the aircraft about the yaw axis  2. The bank of the aircraft  3. The direction of the aircraft turn  4. The angular velocity of the aircraft about the real vertical	3,4.	2,4.	1,3.	1,2.			0	0	1	0

1238	22	The signal supplied by a transmitter fitted with a magnetic sensor, connected to an RPM indicator is :	a three-phase voltage frequency varies with the RPM; the indicator is provided with a motor which drives a magnetic tachometer	a DC voltage varying with the RPM ; the indicator is a simple voltmeter with a rev/min. scale	an AC voltage varying with the RPM ; the indicator rectifies the signal via a diode bridge and is provided with a voltmeter	an AC voltage, the frequency of which varies with the RPM; the indicator converts the signal into square pulses which are then counted					0	0	0	1
1239	22	The TCAS II data display devices can be in the form of:  1- a specific dedicated screen  2- a screen combined with the weather radar  3- a variometer represented on a liquid crystal screen which allows the display of Traffic Advisory (TA) and Resolution Advisory (RA)  4- an EFIS (Electronic Flight Instrument System) screen	1, 2 and 3.	3 and 4.	1 and 3.	1, 2, 3 and 4.					0	0	0	1
1240	22	In a non-pressurized aircraft, if one or several static pressure ports are damaged, there is an ultimate emergency means for restoring a practically correct static pressure intake :	breaking the rate-of-climb indicator glass window	slightly opening a window to restore the ambient pressure in the cabin	descending as much as possible in order to fly at a pressure as close to 1013.25 hPa as possible	calculating the ambient static pressure, allowing for the altitude and QNH and adjusting the instruments					1	0	0	0
1241	22	Today's airspeed indicators (calibrated to the Saint-Venant formula), indicate, in the absence of static (and instrumental) error :	The airspeed, whatever the altitude	The equivalent airspeed, in all cases	The conventional airspeed (CAS) in all cases	The true airspeed					0	0	1	0
1242	22	The principle of the TCAS (Traffic Collision Avoidance Systems) is based on the use of :	F.M.S. (Flight Management System)	air traffic control radar systems	transponders fitted in the aircraft	airborne weather radar system					0	0	1	0
1243	22	In the event of a conflict, the TCAS (Traffic Collision Avoidance System) will give information such as :	turn left/turn right	too low terrain	glide slope	climb/descent					0	0	0	1
1244	22	The TCAS (Traffic Collision Avoidance System) gives avoidance resolutions :	in horizontal and vertical planes	based on speed control	only in the vertical plane	only in the horizontal plane					0	0	1	0
1245	22	Concerning the TCAS (Traffic Collision Avoidance System) :	Resolution Advisory (RA) must not be followed without obtaining clearance from ATC	No protection is available against aircraft not equipped with a serviceable SSR transponder	In one of the system modes, the warning : "TOO LOW TERRAIN" is generated	In one of the system modes, the warning : "PULL UP" is generated					0	1	0	0



1246	22	The operation of the GPWS (Ground Proximity Warning System) is governed by laws taking the aircraft height into account as well as :  1- the descent rate  2- the climb rate  3- the aircraft configuration	2,3	1,3	1,2,4	2,4				0	1	0	0
1247	22	The indication of a fuel float gauge varies with :  1- aircraft attitude  2- accelerations  3- atmospheric pressure	4	1,2	1,2,4	1,2,3,4				0	0	1	0
1248	22	The transmitter of RPM indicator may consist of :  1- a magnetic sensor supplying an induced AC voltage  2- a DC generator supplying a DC voltage  3- a single-phase AC generator supplying an AC voltage  4- a three-phase AC generator supplying a three-phase voltage	1,2,3	1,2,3,4	2,3,4	1,4				0	1	0	0
1249	22	The yaw damper indicator supplies the pilot with information regarding the:	yaw damper action on the rudder	rudder displacement by the rudder pedals	yaw damper action only on the ground	rudder position				1	0	0	0
1250	22	A vibration indicator receives a signal from different sensors (accelerometers). It indicates the :	vibration period expressed in seconds	vibration amplitude at a given frequency	acceleration measured by the sensors, expressed in g	vibration frequency expressed in Hz				0	1	0	0
1251	22	The altitude indicated on board an aircraft flying in an atmosphere where all the atmosphere layers below the aircraft are cold is :	equal to the standard altitude.	lower than the real altitude.	the same as the real altitude.	higher than the real altitude.				0	1	0	0
1252	22	The signal supplied by a transmitter fitted with a 3-phase AC generator, connected to RPM indicator, is :	a DC voltage varying with the RPM; the indicator is a plain voltmeter with a rev/min. scale	an AC voltage, the frequency of which varies with the RPM; the indicator converts the signal into square pulses which are then counted	an AC voltage varying with the RPM; the indicator rectifies the signal via a diode bridge and is provided with a voltmeter	a three-phase voltage, the frequency of which varies with the RPM; the indicator is provided with a motor which drives a magnetic tachometer				0	0	0	1
1253	22	Given :  - Ts the static temperature (SAT)  - Tt the total temperature (TAT)  - Kr the recovery coefficient	$Tt = Ts(1+0.2 Kr M^2)$	$Tt = Ts(1+0.2 Kr M^2)$	$Tt = Ts/(1+0.2 Kr M^2)$	$Tt = Ts(1+0.2 Kr M^2)$				0	0	0	1
1254	22	The TCAS (Traffic Collision Avoidance System) is a proximity alarm system which detects a "traffic" when the conflicting traffic is equipped with a :	serviceable SSR transponder	serviceable weather radar	SELCAL system	DME system				1	0	0	0

1255	22	When being engaged, and without selecting a particular mode, an automatic pilot enables :	a constant speed on track, wings horizontal.	all aeroplane piloting and guidance functions except maintaining radio-navigation on course lines.	aeroplane stabilisation with attitude hold or maintaining vertical speed and possibly automatic trim.	aeroplane piloting and guidance functions.					0	0	1	0
1256	22	On an autopilot coupled approach, GO AROUND mode is engaged:	by the pilot pushing a button located on the throttles.	by the pilot selecting G.A. mode on the thrust computer control panel.	automatically in case of an autopilot or flight director alarm.	if the aircraft reaches the decision height selected on the radio altimeter at a higher speed than the one selected.					1	0	0	0
1257	22	Mode "Localizer ARM" active on Flight Director means:	Localizer ALARM, making localizer approach not authorized	Coupling has occurred and system provides control data to capture the centerline	Localizer is armed and coupling will occur when flag warning disappears	System is armed for localizer approach and coupling will occur upon capturing center line					0	0	0	1
1258	22	A Stand-by-horizon or emergency attitude indicator:	Is automatically connected to the primary vertical gyro if the alternator fails	Is fully independent of external energy resources in an emergency situation	Only works if there is a complete electrical failure	Contains its own separate gyro					0	0	0	1
1259	22	If an aircraft is equipped with one altimeter which is compensated for position error and another altimeter which is not ; and all other factors being equal..	At high speed the non-compensated altimeter will indicate a lower altitude	There will be no difference between them if the air data computer (ADC) is functioning normally	ATC will get an erroneous altitude report SSR	At high speed, the non-compensated altimeter will indicate a higher altitude					0	0	0	1
1260	22	For most radio altimeters, when a system error occurs during approach the ..	Height indication is removed	DH lamp flashes red and the audio signal sounds	DH lamp flashes red	Audio warning signal sounds					1	0	0	0

1261	22	Indication of Mach number is obtained from:	Indicated speed and altitude using a speed indicator equipped with an altimeter type aneroid	An ordinary airspeed indicator scaled for Mach numbers instead of knots	A kind of echo sound comparing velocity of sound with indicated speed	Indicated speed (IAS) compared with true air speed (TAS) from the air data computer					1	0	0	0
1262	22	The altimeter consists of one or several aneroid capsules located in a sealed casing.  The pressures in the aneroid capsule (i) and casing (ii) are respectively :	(i) static pressure (ii) total pressure	(i) vacuum (or a very low pressure) (ii) static pressure	(i) static pressure at time t (ii) static pressure at time t - t	(i) total pressure (ii) static pressure					0	1	0	0
1263	22	In low altitude radio altimeters, the height measurement (above the ground) is based upon:	a triangular amplitude modulation wave, for which modulation phase shift between transmitted and received waves after ground reflection is measured.	a frequency modulation wave, for which the frequency variation between the transmitted wave and the received wave after ground reflection is measured.	a pulse transmission, for which time between transmission and reception is measured on a circular scanning screen.	a wave transmission, for which the frequency shift by DOPPLER effect after ground reflection is measured.					0	1	0	0
1264	22	On board an aircraft the altitude is measured from the:	standard altitude	pressure altitude	density altitude	temperature altitude					0	1	0	0
1265	22	The limits of the yellow scale of an airspeed indicator are :	VLO for the lower limit and VNE for the upper limit	VLE for the lower limit and VNE for the upper limit	VFE for the lower limit and VNE for the upper limit	VNO for the lower limit and VNE for the upper limit					0	0	0	1
1266	22	During a straight and uniform climb, the pilot maintains a constant calibrated airspeed (CAS) :	The Mach number increases and the true airspeed (TAS) increases.	The Mach number increases and the true airspeed (TAS) is constant.	The Mach number is constant and the true airspeed (TAS) is constant.	The Mach number is constant and the true airspeed (TAS) decreases.					1	0	0	0
1267	22	The RPM indicator (or tachometer) of a piston engine can include a small red arc within the arc normally used (green arc)  In the RPM range corresponding to this small red arc the :	rating is the minimum usable in cruise	propeller efficiency is minimum at this rating	propeller generates vibration, continuous rating is forbidden	rating is the maximum possible in continuous mode					0	0	1	0
1268	22	The airspeed indicator of a twin-engined aircraft comprises different sectors and color marks. The blue line corresponds to the :	maximum speed in operations, or VMO	optimum climbing speed with one engine inoperative, or Vy	speed not to be exceeded, or VNE	minimum control speed, or VMC					0	1	0	0

1269	22	The interception of a localizer beam by the autopilot takes place :	according to an interception versus radio deviation law	according to an interception versus range and angular	at a constant heading	at a constant magnetic course					0	0	1	0
1270	22	The "heading hold" mode is selected on the flight director (FD) with a course to steer of 180°. Your aircraft holds a heading of 160°. The vertical bar of the FD:	cannot be centered	is centered if the aircraft is on optimum path to join heading 180°	is centered if the aircraft has a starboard drift of 20°	is centered if the aircraft has a port drift of 20°					0	1	0	0
1271	22	The calibrated airspeed (CAS) or Mach holding mode is carried out by:  1- the autopilot pitch channel in the climb mode at a constant calibrated airspeed (CAS) or Mach number  2- the autothrottles in the climb mode at a constant calibrated airspeed (CAS) or Mach number  3- the autopilot pitch channel in the altitude or glide path holding mode  4- the autothrottles in the altitude or glide path holding mode	2 and 4.	1 and 3.	2 and 3.	1 and 4.					0	0	0	1
1272	22	A gyromagnetic compass or heading reference unit is an assembly which always consists of :  1- a directional gyro  2- a vertical axis gyro  3- an earth's magnetic field detector	2,5	1,3,5	2,3,5	1,4					0	1	0	0
1273	22	A radio altimeter can be defined as a :	ground radio aid used to measure the true height of the aircraft	ground radio aid used to measure the true altitude of the aircraft	self-contained on-board aid used to measure the true height of the aircraft	self-contained on-board aid used to measure the true altitude of the aircraft					0	0	1	0
1274	22	The limits of the white scale of an airspeed indicator are :	VSI for the lower limit and VFE for the upper limit	VSO for the lower limit and VLE for the upper limit	VSI for the lower limit and VLE for the upper limit	VSO for the lower limit and VFE for the upper limit					0	0	0	1
1275	22	When an automatic landing is interrupted by a go-around :  1- the autothrottle reacts immediately upon the pilot action on the TO/GA (Take-off/Go-around) switch in order to recover the maximum thrust  2- the autopilot monitors the climb and the rotation of the airplane  3- the autopilot retracts the landing gear and reduces the flap deflection in order to reduce the drag  4- the pilot performs the climb and the rotation of the airplane  5- the pilot retracts the landing gear and reduces the flap deflection in order to reduce the drag	1, 3 and 4.	1, 2 and 3.	1, 2 and 5.	1, 4 and 5.					0	0	1	0

1276	22	The velocity maximum operating (V.M.O.) is a speed expressed in :	true airspeed (TAS).	computed airspeed (COAS).	calibrated airspeed (CAS).	equivalent airspeed (EAS).			0	0	1	0
1277	22	A failed RMI rose is locked on 090° and the ADF pointer indicates 225°. The relative bearing to the station is :	225°.	135°.	Impossible to read, due to failure RMI.	315°.			0	1	0	0
1278	22	An airplane is in steady descent. The autothrottle maintains a constant Mach number. If the total temperature remains constant, the calibrated airspeed:	remains constant.	decreases if the static temperature is lower than the standard temperature, increases if above.	increases.	decreases.			0	0	1	0
1279	22	A ground proximity warning system (GPWS), when mandatorily installed on board an aircraft, must in all cases generate :	a sound alarm or a visual alarm	a sound and visual alarm	a visual alarm to which a sound alarm can be	at least one sound alarm to which a visual alarm can be added			0	0	0	1
1280	22	The essential components of a flight director are : 1- a computer 2- an automatic pilot 3- an autothrottle	2,4	2,3	1,4	1,2			0	0	1	0
1281	22	A pilot has to carry out a single-pilot IFR flight on a light twin-engined aircraft for cargo transport. The purpose of the automatic pilot is at least to hold the:	heading	altitude	heading, to hold the altitude and to have a radio axis tracking function	heading and to hold the altitude			0	0	0	1
1282	22	An automatic landing is carried out when the automatic pilot :	and the autothrottle ensure a correct final approach, at least up to ground roll	ensures a correct final approach, at least up to ground roll while the human pilot controls the power	and the autothrottle ensure a correct final approach, at least up to flare-out	and the autothrottle ensure a correct final approach, at least up to flare-out while the human pilot controls the power			1	0	0	0
1283	22	Considering the maximum operational Mach number (MMO) and the maximum operational speed (VMO), the captain of a pressurized aircraft begins his descent from a high flight level. In order to meet his scheduled time of arrival, he decides to use the maximum ground speed at any time of the descent. He will be limited :	initially by the VMO, then by the MMO below a certain flight level	by the MMO	by the VMO in still air	initially by the MMO, then by the VMO below a certain flight level			0	0	0	1
1284	22	The pressure measured at the forward facing orifice of a pitot tube is the :	total pressure plus static pressure.	dynamic pressure.	total pressure.	static pressure.			0	0	1	0

1285	22	An airplane is in steady cruise at flight level 290. The autothrottle maintains a constant Mach number. If the total temperature decreases, the calibrated airspeed:	increases.	decreases.	decreases if the outside temperature is lower than the standard temperature, increases if higher.	remains constant.					0	0	0	1
1286	22	An airplane is in steady cruise at flight level 290. The autothrottle maintains a constant Mach number. If the total temperature increases, the calibrated airspeed:	decreases.	increases if the static temperature is higher than the standard temperature, decreases if lower.	remains constant.	increases.					0	0	1	0
1287	22	The Ground Proximity Warning System (GPWS) generates the following sound signal or signals when the aircraft is sinking after a take-off or a go-around :	WHOO WHOO PULL UP repetitive only	DON'T SINK always followed by WHOO PULL UP	DON'T SINK followed by WHOO WHOO PULL UP if the sink rate overshoots a second level	DON'T SINK repetitive only					0	0	0	1
1288	22	The basis properties of a gyroscope are :  1. The gyro's weight.  2. The rigidity in space.  3. The inertia.	3,4	2,5	2,3,5	1,3,5					0	1	0	0
1289	22	The static pressure error of the static vent on which the altimeter is connected varies substantially with the:	static temperature	Mach number of the aircraft	deformation of the aneroid capsule	aircraft altitude					0	1	0	0
1290	22	The purpose of the vibrating device of an altimeter is to:	allow damping of the measurement in the unit	reduce the hysteresis effect	reduce the effect of friction in the linkages	inform the crew of a failure of the instrument					0	0	1	0
1291	22	The hysteresis error of an altimeter varies substantially with the:	time passed at a given altitude.	mach number of the aircraft.	aircraft altitude.	static temperature.					1	0	0	0
1292	22	VLE is the maximum :	speed authorized in flight	flight speed with landing gear down	speed at which the landing gear can be operated with full safety	speed with flaps extended in a given position					0	1	0	0
1293	22	VLO is the maximum :	speed at which the landing gear can be operated with full safety.	flight speed with landing gear down.	speed with flaps extended in a given position.	cruising speed not to be exceeded except in still air with caution.					1	0	0	0

1294	22	VNE is the maximum speed :	at which the flight controls can be fully deflected	with flaps extended in landing position	which must never be exceeded	not to be exceeded except in still air and with caution				0	0	1	0
1295	22	VNO is the maximum speed :	which must never be exceeded.	at which the flight controls can be fully deflected.	with flaps extended in landing position.	not to be exceeded except in still air and with caution.				0	0	0	1
1296	22	The vertical speed indicator of an aircraft flying at a true airspeed of 100 kt, in a descent with a slope of 3 degrees, indicates :	- 300 ft/min	- 150 ft/min	- 250 ft/min	- 500 ft/min.				0	0	0	1
1297	22	The advantages provided by an air data computer to indicate the altitude are :  1. Position/pressure error correction  2. Hysteresis error correction  3. Remote data transmission capability  4. Capability of operating as a conventional altimeter in the	1,2,3,4	2,3,4	1,2,3	1,3,4				0	0	0	1
1298	22	The calibrated airspeed (CAS) is obtained by applying to the indicated airspeed (IAS) :	a compressibility and density correction.	an instrument and position/pressure error correction.	an antenna and compressibility correction.	and instrument and density correction.				0	1	0	0
1299	22	The limits of the green scale of an airspeed indicator are :	VS1 for the lower limit and VNE for the upper limit	VS1 for the lower limit and VLO for the upper limit	VS1 for the lower limit and VNO for the upper limit	VS0 for the lower limit and VNO for the upper limit				0	0	1	0
1300	22	Among the flight control instruments, the artificial horizon plays an essential part. It uses a gyroscope with :  Note : in this question, the degrees of freedom of a gyro are determined by the number of gimbal rings it comprises.	two degrees of freedom, whose axis is oriented and continuously maintained to local vertical by an automatic erecting system.	two degrees of freedom, whose horizontal axis corresponding to a reference direction is maintained in a horizontal plane by an automatic erecting system	one degree of freedom, whose horizontal axis is maintained in a horizontal plane by an automatic erecting system	one degree of freedom, whose vertical axis oriented in the direction of the real vertical to the location is maintained in this direction by an automatic erecting system				1	0	0	0
1301	22	With a pitot probe blocked due to ice build up, the aircraft airspeed indicator will indicate in descent a :	increasing speed.	fluctuating speed.	decreasing speed.	constant speed.				0	0	1	0

1302	22	The indication of the directional gyro as an on-board instrument are valid only for a short period of time. The causes of this inaccuracy are :  1. The earth's rotation  2. The longitudinal acceleration  3. The aircraft's motion over the surface of the earth.  4. The mechanical defects of the gyro  5. The scale weight	1,3,4	1,2,3,4,5,6	2,5,6	1,3,4,6					0	0	0	1
1303	22	With a constant weight, irrespective of the airfield altitude, an aircraft always takes off at the same :	calibrated airspeed.	ground speed.	true airspeed.	equivalent airspeed.					1	0	0	0
1304	22	During a climb after take-off from a contaminated runway, if the total pressure probe of the airspeed indicator is blocked, the pilot finds that indicated airspeed :	decreases abruptly towards zero	increases steadily	increases abruptly towards VNE	decreases steadily					0	1	0	0
1305	22	The mach number is the:	indicated airspeed (IAS) divided by the local speed of sound	equivalent airspeed (EAS) divided by the local speed of sound	true airspeed (TAS) divided by the local speed of sound	corrected airspeed (CAS) divided by the local speed of sound					0	0	1	0
1306	22	The principle of the Mach indicator is based on the computation of the ratio :	$(P_t + P_s) \text{ to } P_s$	$(P_t - P_s) \text{ to } P_s$	$P_t \text{ to } P_s$	$(P_t - P_s) \text{ to } P_t$					0	1	0	0
1307	22	After an aircraft has passed through a volcanic cloud which has blocked the total pressure probe inlet of the airspeed indicator, the pilot begins a stabilized descent and finds that the indicated airspeed :	increases steadily	decreases abruptly towards zero	decreases steadily	increases abruptly towards VNE					0	0	1	0
1308	22	The reading of a Mach indicator is independent of :	the outside temperature	the static pressure	the total pressure	the differential pressure measurement					1	0	0	0
1309	22	The calculator combined with the stick shaker system of a modern transport airplane receives information about the:  1- angle of attack  2- engine R.P.M.  3- configuration  4- pitch and bank attitude  5- sideslip	1, 2, 3 and 4.	1 and 3.	1, 2, 3, 4 and 5.	1 and 5.					0	1	0	0
1310	22	A Ground Proximity Warning System (GPWS) generates automatically a distinct warning to the flight crew with aural and/or light warning signals in the case of:  1- an excessive rate of descent with respect to terrain  2- a dangerous proximity to the ground  3- a loss of altitude following take-off or go-around  4- an abnormal flight attitude  5- an abnormal landing configuration  6- an abnormal deviation below ILS glide slope	1, 2, 3, 5 and 6.	1, 2, 3, 4 and 5.	1,2 and 4.	3, 4, 5 and 6.					1	0	0	0



1311	22	A VMO-MMO warning device consists of an alarm connected to :	a barometric aneroid capsule and an airspeed sensor subjected to dynamic pressure.	a barometric aneroid capsule and an airspeed sensor subjected to a static pressure.	a barometric aneroid capsule subjected to a static pressure and an airspeed sensor subjected to a dynamic pressure.	a barometric aneroid capsule subjected to a dynamic pressure and an airspeed sensor subjected to a static pressure.					0	0	1	0
1312	22	The characteristics of the directional gyro (DG) used in a gyro stabilised compass system are :	one degree of freedom, whose vertical axis, aligned with the real vertical to the location is maintained in this direction by an automatic erecting system.	two degrees of freedom, whose horizontal axis corresponding to the reference direction is maintained in the horizontal plane by an automatic erecting system.	two degrees of freedom, whose axis aligned with the vertical to the location is maintained in this direction by an erecting system.	one degree of freedom, whose horizontal axis is maintained in the horizontal plane by an automatic erecting system.					0	1	0	0
1313	22	The electromotive force of a thermocouple is not modified if one or several intermediate metals are inserted in the circuit provided that:	these metals are maintained at a temperature higher than that of the cold source.	these metals are maintained at a temperature lower than that of the cold source.	contact points are maintained at equal temperature between these different metals.	these metals are not the same as those constituting the thermocouple.					0	0	1	0
1314	22	An aeroplane is in a steady climb. The autothrottle maintains a constant Mach number. If the total temperature remains constant, the calibrated airspeed :	decreases if the static temperature is lower than the standard temperature, increases if higher.	decreases.	increases.	remains constant.					0	1	0	0
1315	22	A "TCAS II" (Traffic Collision Avoidance System) provides:	the intruder relative position and possibly an indication of a collision avoidance manoeuvre within both the vertical and horizontal planes.	the intruder relative position and possibly an indication of a collision avoidance manoeuvre within the horizontal plane only.	the intruder relative position and possibly an indication of a collision avoidance manoeuvre within the vertical plane only.	a simple intruding airplane proximity warning.					0	0	1	0
1316	22	A "Bourdon Tube" is used in:	pressure sensors	vibration detectors	smoke detectors	turbine temperature probes					1	0	0	0

1317	22	The heading read on the dial of a directional gyro is subject to errors, one of which is due to the movement of the aircraft.  This error...	is at its greatest value when the aircraft follows a meridional track	shows itself by an apparent rotation of the horizontal axis of the gyroscope which seems to turn at 15° per hour to the right in the northern hemisphere	is dependent on the ground speed of the aircraft, its true track and the average latitude of the flight	is, in spite of this, insignificant and may be neglected						0	0	1	0
1318	22	A closed loop control system in which a small power input controls a much larger power output in a strictly proportionate manner is known as :	an amplifier.	a feedback control circuit.	an autopilot.	a servomechanism.						0	0	0	1
1319	22	(Use the appendix to answer this question)  The diagram which shows a 40° left bank and 15° nose	1	2	3	4						1	0	0	0
1320	22	The operating principle of the vertical speed indicator (VSI) is based on the measurement of the rate of change of:	Kinetic pressure	Static pressure	Dynamic pressure	Total pressure						0	1	0	0
1321	22	When turning onto a northerly heading the rose of a magnetic compass tends to "undershoot;" when turning onto a southerly heading it tends to "overshoot":  1)these compass indications are less reliable in the northern hemisphere than in the southern hemisphere.  2)these compass oscillations following a lateral gust are not identical if the aircraft is heading north or south.  3) this behaviour is due to the mechanical construction of the compass.  4) this behaviour is a symptom of a badly swung compass.	2, 3, and 4.	1 and 3.	2 and 3.	1, 2, and 4.						0	0	1	0
1322	22	A turn indicator is an instrument which indicates rate of turn.  Rate of turn depends upon :  1 : bank angle  2 : aeroplane speed  3 : aeroplane weight	1, 2, and 3.	1 and 2.	1 and 3.	2 and 3.						0	1	0	0
1323	22	The pressure probe used to measure the pressure of a low pressure fuel pump is:	an aneroid capsule.	a bellows sensor.	a Bourdon tube.	a differential capsule.						1	0	0	0
1324	22	The probe used to measure the air intake pressure of a gas turbine engine powerplant is:	a differential capsule.	a Bourdon tube.	a bellows sensor.	an aneroid capsule.						0	0	0	1
1325	22	The advantages of an electrical induction tachometer are:  1- the display is not sensitive to line resistance  2- the measurement is independent of aircraft power supply  3- the measurement is independent of temperature variations  4- the option to use without restriction several indicators connected in parallel to a single transmitter  The combination regrouping all the correct statements is:	1, 3, 4.	1, 2, 3, 4.	2, 3, 4.	1, 2, 4.						0	0	0	1

1326	22	A millivoltmeter measuring the electromotive force between the "hot junction" and the "cold junction" of a thermocouple can be directly graduated in temperature values provided that the temperature of the:	cold junction is maintained constant.	hot junction is maintained constant.	cold junction is maintained at 15 °C.	hot junction is maintained at 15 °C.					1	0	0	0
1327	22	Compared with a conventional gyro, a laser gyro :	consumes a lot of power	has a longer life cycle	is influenced by temperature	has a fairly long starting cycle					0	1	0	0
1328	22	Among the following engine instruments, the one operating with an aneroid pressure diaphragm is the :	oil pressure gauge.	fuel pressure gauge.	oil thermometer.	manifold pressure gauge.					0	0	0	1
1329	22	Heading information from the gyromagnetic compass flux gate is transmitted to the :	amplifier.	error detector.	erecting system.	heading indicator.					0	1	0	0
1330	22	The principle of capacitor gauges is based on:	the variation of capacity by volumetric measurement exercised on the sensor	the variation of flow and torque exercised in a supply line	the variation in capacity of a condenser with the nature of the dielectric	the current variation in a Wheatstone bridge					0	0	1	0
1331	22	A paddle-wheel placed in a the fuel circuit of a gas turbine engine initially measures:	volumetric flow by a tally of the impulses	mass flow by a tally of the impulses	volumetric flow by measure of a voltage proportional to the rotational speed	mass flow by measure of a voltage proportional to the rotational speed					1	0	0	0
1332	22	The purpose of a compass swing is to attempt to coincide the indications of:	compass north and the lubber line.	compass north and magnetic north.	compass north and true north.	true north and magnetic north.					0	1	0	0
1333	22	The position of a Flight Director command bars:	indicates the manoeuvres to execute, to achieve or maintain a flight situation.	repeats the ADI and HSI information	enables the measurement of deviation from a given position.	only displays information relating to radio-electric deviation.					1	0	0	0
1334	22	In a steep tum, the northerly turning error on a magnetic compass on the northern hemisphere is:	equal to 180° on a 090° heading in a right turn.	none on a 270° heading in a left turn.	none on a 090° heading in a right turn.	equal to 180° on a 270° heading in a right tum.					1	0	0	0
1335	22	(For this question use appendix )  The diagram representing a left turn with insufficient rudder is:	2	3	4	1					0	0	1	0
1336	22	The advantages of an electric float gauge are:  1- ease of manufacture  2- independence of the indication relative to the variations of the aircraft power system if the measurement is made by a ratiometer  3- independence of the indication relative to the variations of the aircraft power system if the measurement is made by a galvanometer  4- independence of the indication relative to temperature variations	1, 2, 4	1, 2, 3, 4	1, 3, 4	2, 3, 4					1	0	0	0

1337	22	The gauge indicating the quantity of fuel measured by a capacity gauging system can be graduated directly in weight units because the dielectric constant of fuel is:	twice that of air and varies directly with density.	the same as that of air and varies directly with density.	twice that of air and varies inversely with density.	the same as that of air and varies inversely with density.					1	0	0	0
1338	22	Flight Director Information supplied by an FD computer is presented in the form of command bars on the following instrument:	ADI Attitude Display Indicator.	BDHI Bearing Distance Heading Indicator.	RMI Radio Magnetic Indicator.	HSI Horizontal Situation Indicator.					1	0	0	0
1339	22	The main advantage of a ratiometer-type temperature indicator is that it:	is simple.	can operate without an electrical power supply.	is very accurate.	carries out an independent measurement of the supply voltage.					0	0	0	1
1340	22	Given : M is the Mach number  <del>Ts is the static temperature</del>	$T_s = T_t(1+0.2 \cdot M^2)$	$T_s = T_t(0.2 \cdot M^2)$	$T_s = T_t / (0.2 \cdot M^2)$	$T_s = T_t / (1+0.2 \cdot M^2)$					0	0	0	1
1341	22	Regarding Electronic Instrument System (EFIS):  1- the Navigation Display (ND) displays Flight Director Bars.  2- the altimeter setting is displayed on the PFD (Primary Flight Display).  3- the PFD is the main flying instrument.  4- the FMA (Flight Mode Annunciator) is part of the ND.	1, 2.	2, 3.	3, 4.	1, 4.					0	1	0	0
1342	22	The data supplied by a radio altimeter:	indicates the distance between the ground and the aircraft.	concerns only the decision height.	is used only by the radio altimeter indicator.	is used by the automatic pilot in the altitude hold mode.					1	0	0	0
1343	22	The low-altitude radio altimeters used in precision approaches:  1 operate in the 1540-1660 MHz range.  2 are of the pulsed type.  3 are of the frequency modulation type.  4 have an operating range of 0 to 5000 ft.	3, 5	3, 4	2, 3, 4	1, 2, 5					1	0	0	0
1344	22	In low altitude radio altimeters, the reading is zero when main landing gear wheels are on the ground. For this, it is necessary to:	change the display scale in short final, in order to have a precise readout.	compensate residual altitude due to antennas height above the ground and coaxial cables length.	account for signal processing time in the unit and apply a correction factor to the reading.	place the antennas on the bottom of the aeroplane.					0	0	1	0

1345	22	(For this question use annex 022-10217A) After having programmed your flight director, you see that the indications of your ADI (Attitude Director Indicator) are as represented in diagram N°1 of the appended annex. On this instrument, the command bars indicate that you must bank your airplane to the left and :	increase the flight attitude until the command bars recentre on the symbolic airplane.	decrease the flight attitude until the command bars recentre on the symbolic airplane.	increase the flight attitude until the command bars recentre on the horizon.	decrease the flight attitude until the command bars recentre on the horizon.					1	0	0	0	
1346	22	During deceleration following a landing in a Southerly direction, the magnetic compass will indicate :	an apparent tum to the East.	an apparent tum to the West.	a heading fluctuating about 180°.	no apparent tum.						0	0	0	1
1347	22	The principle of detection of a vibration monitoring system is based on the use of :	2 accelerometers.	2 high and low frequency amplifiers.	2 high and low frequency filters.	a frequency converter.						1	0	0	0
1348	22	In the Northern hemisphere, during deceleration following a landing in a Westerly direction, the magnetic compass will indicate :	an apparent tum to the South.	an apparent tum to the North.	no apparent tum.	a heading fluctuating about 270°.						1	0	0	0
1349	22	In the Southern hemisphere, during deceleration following a landing in an Easterly direction, the magnetic compass will indicate :	no apparent tum.	a heading fluctuating about 090°.	an apparent tum to the North.	an apparent tum to the South.						0	0	1	0
1350	22	The quadrantal deviation of a magnetic compass is corrected by using :	magnetized needles	soft iron pieces	hard iron pieces	pairs of permanent magnets						0	1	0	0
1351	22	The quadrantal deviation of the magnetic compass is due to the action of :	the hard iron pieces influenced by the geomagnetic field	the hard iron pieces influenced by the mild iron pieces	the soft iron pieces influenced by the geomagnetic field	the hard iron pieces and the soft iron pieces influenced by the hard iron pieces						0	0	1	0
1352	22	In order to measure temperature the cylinder head temperature (CHT) gauge utilises a :	thermocouple consisting of two dissimilar metals.	wheatstone bridge circuit.	ratiometer circuit.	bourdon tube.						1	0	0	0
1353	22	The yaw damper, which suppresses Dutch roll:	controls the ailerons, with the angular rate about the vertical axis as the input signal.	controls the rudder, with the angular rate about the vertical axis as the input signal.	controls the ailerons, with Mach Number as the input signal.	controls the rudder, with Mach Number as the input signal.						0	1	0	0
1354	22	A laser gyro consists of :	two moving cavities provided with mirrors	a laser generating two light waves	2 electrodes (anodes+cathodes)	a gyro with 2 degrees of freedom						0	1	0	0
1355	22	A gravity erector system is used to correct the errors on :	an artificial horizon.	a directional gyro.	a turn indicator.	a gyromagnetic compass.						1	0	0	0
1356	22	A pilot wishes to turn right on to a southerly heading with 20° bank at a latitude of 20° North. Using a direct reading compass, in order to achieve this he must stop the tum on an approximate heading of :	150°	170°	190°	210°						0	0	0	1

1357	22	A pilot wishes to turn left on to a southerly heading with 20° bank at a latitude of 20° North. Using a direct reading compass, in order to achieve this he must stop the turn on an approximate heading of :	190°	160°	200°	170°						0	1	0	0
1358	22	A pilot wishes to turn left on to a northerly heading with 10° bank at a latitude of 50° North. Using a direct reading compass, in order to achieve this he must stop the turn on an approximate heading of :	355°	330°	015°	030°						0	0	0	1
1359	22	A pilot wishes to turn right on to a northerly heading with 20° bank at a latitude of 40° North. Using a direct reading compass, in order to achieve this he must stop the turn on to an approximate heading of :	010°	330°	350°	030°						0	1	0	0
1360	22	An aeroplane is in steady descent. The autothrottle maintains a constant calibrated airspeed. If the total temperature remains constant, the Mach number :	increases if the static temperature is lower than the standard temperature, decreases if higher.	decreases.	increases.	remains constant.						0	1	0	0
1361	22	The purpose of compass swinging is to determine the deviation of a magnetic compass :	on any heading	on a given heading	at any latitude	at a given latitude						1	0	0	0
1362	22	The compass heading can be derived from the magnetic heading by reference to a :	deviation correction curve	map showing the isogonic lines	compass swinging curve	map showing the isoclinic lines						0	0	1	0
1363	22	The magnetic heading can be derived from the true heading by means of a :	compass swinging curve	map showing the isogonal lines	map showing the isoclinic lines	deviation correction curve						0	1	0	0
1364	22	The total air temperature (TAT) is always :	higher than Static Air Temperature (SAT) depending on the Calibrated Air Speed (CAS).	higher lower than Static Air Temperature (SAT) depending on the Calibrated Air Speed (CAS).	higher than Static Air Temperature (SAT) depending on the altitude.	lower than Static Air Temperature (SAT) depending on the altitude.						1	0	0	0
1365	22	The static air temperature (SAT) is :	an absolute temperature expressed in degrees Celsius	a differential temperature expressed in degrees Kelvin	a relative temperature expressed in degrees Celsius	a relative temperature expressed in degrees Kelvin						1	0	0	0
1366	22	The electronic tachometer sensor is composed of:	the rotor of a single phase A.C. generator.	the rotor of a three-phase A.C. generator.	a notched wheel rotating in front of an electro-magnet.	a circular magnet with four poles.						0	0	1	0
1367	22	The "Bourdon tube" is used to measure :	a flow rate.	pressure.	temperature.	quantity.						0	1	0	0
1368	22	An airborne instrument, equipped with a gyro with 2 degrees of freedom and a horizontal spin axis is:	an artificial horizon	a turn indicator	a fluxgate compass	a directional gyro						0	0	0	1
1369	22	When, in flight, the needle and ball of a needle-and-ball indicator are on the left, the aircraft is:	turning right with too much bank	turning right with not enough bank	turning left with too much bank	turning left with not enough bank						0	0	1	0
1370	22	On the ground, during a left turn, the turn indicator indicates :	needle to the left, ball to the left	needle in the middle, ball to the right	needle in the middle, ball to the left	needle to the left, ball to the right						0	0	0	1

1371	22	On the ground, during a right turn, the turn indicator indicates :	needle in the middle, ball to left	needle to the right, ball to left	needle to the right, ball to right	needle in the middle, ball to right			0	1	0	0
1372	22	The rate-of-turn is the:	pitch rate in a tum	change-of-heading rate of the aircraft	yaw rate in a tum	aircraft speed in a tum			0	1	0	0
1373	22	At a low bank angle, the measurement of rate-of-turn actually consists in measuring the :	angular velocity of the aircraft	yaw rate of the aircraft	pitch rate of the aircraft	roll rate of the aircraft			0	1	0	0
1374	22	In a Tum-indicator, the measurement of rate-of-tum consists for :	high bank angles,in measuring the yaw rate	high bank angles, in measuring the roll rate	low bank angles, in measuring the yaw rate	low bank angles , in measuring the roll rate			0	0	1	0
1375	22	In a turn at constant rate, the turn indicator reading is:	proportional to the aircraft true airspeed	independent to the aircraft true airspeed	proportional to the aircraft weight	inversely proportional to the aircraft true airspeed			0	0	0	1
1376	22	An airborne instrument, equipped with a gyro with 2 degrees of freedom and a horizontal spin axis is :	a directional gyro	an artificial horizon	a turn indicator	a flux gate compass			1	0	0	0
1377	22	An airborne instrument, equipped with a gyro with 1 degree of freedom and a horizontal spin axis is a :	fluxgate compass	directional gyro	tum indicator	gyromagnetic compass			0	0	1	0
1378	22	At a constant Mach number, the calibrated air speed (CAS) :	remains unchanged when the outside temperature increases	remains unchanged when the outside temperature decreases	decreases when the altitude increases	increases when the altitude increases			0	0	1	0
1379	22	At a constant calibrated airspeed (CAS), the Mach number :	increases when the altitude increases	decreases when the altitude increases	remains unchanged when the outside temperature increases	remains unchanged when the outside temperature decreases			1	0	0	0
1380	22	When compared with the volumetric fuel flowmeter, the mass fuel flowmeter takes into account the fuel :	temperature.	pressure.	dielectrical constant.	density.			0	0	0	1
1381	22	The heading reference unit of a three-axis data generator is equipped with a gyro with:	2 degrees of freedom and horizontal spin axis	2 degrees of freedom and vertical spin axis	1 degree of freedom and horizontal spin axis	1 degree of freedom and vertical spin axis			1	0	0	0
1382	22	When, in flight, the needle of a needle-and-ball indicator is on the left and the ball on the right, the aircraft is:	tuming left with too much bank	tuming right with not enough bank	tuming right with too much bank	tuming left with not enough bank			0	0	0	1
1383	22	The operation of the radio altimeter of a modern aircraft is based on:	pulse modulation of the carrier wave.	a combination of frequency modulation and pulse modulation.	frequency modulation of the carrier wave.	amplitude modulation of the carrier wave.			0	0	1	0
1384	22	A manifold pressure gauge of a piston engine measures :	fuel pressure leaving the carburettor.	vacuum in the carburettor.	absolute pressure in intake system near the inlet valve.	absolute airpressure entering the carburettor .			0	0	1	0

1385	22	The stick shaker calculator receives the following informations :  1- mass of the airplane  2- angle of attack  3- wing flap deflection  4- position of the landing gear  5- total air temperature	2, 3	2, 3, 5	1, 2, 3, 4	1, 2, 3, 4, 5, 6						1	0	0	0
1386	22	If a manifold pressure gauge consistently registers atmospheric pressure, the cause is probably;	leak in pressure gauge line.	too high float level.	fuel of too low volatility.	ice in induction system.						1	0	0	0
1387	22	A directional gyro is:  1- a gyroscope free around two axis  2- a gyroscope free around one axis  3- capable of self-orientation around an earth-tied direction  4- incapable of self-orientation around an earth-tied direction	1 - 4	2 - 4	2 - 3	1 - 3						1	0	0	0
1388	22	Modern low altitude radioaltimeters emit waves in the following frequency band:	HF (High Frequency).	UHF (Ultra High Frequency).	SHF (Super High Frequency).	VLF (Very Low Frequency).						0	0	1	0
1389	22	The Primary Flight Display (PFD) displays information dedicated to:	engines and alarms.	systems.	piloting.	weather situation.						0	0	1	0
1390	22	(For this question use annex 022-3880A)  The block diagram of an auto-pilot is shown in the annex.  For each control channel (pitch, roll and yaw) the piloting law is the relationship between the deflection of the control surface commanded by the computer (BETA c) and the:	real deflection of the control surface (BETA control surface feedback).	offset EPSILON at the computer input.	pilot command E.	aircraft response S.						0	1	0	0
1391	22	The Decision Height (DH) warning light comes on when an aircraft:	passes over the outer marker.	descends below a pre-set barometric altitude.	passes over the ILS inner marker.	descends below a pre-set radio altitude.						0	0	0	1
1392	22	(For this question use annex 022-11232A)  After having programmed your flight director, you see that the indications of your ADI (Attitude Director indicator) are as represented in diagram N°1 of the appended annex. On this instrument, the command bars indicate that you must :	increase the flight attitude and bank your airplane to the left until the command bars recentre on the symbolic aeroplane.	increase the flight attitude and bank your aeroplane to the right until the command bars recentre on the symbolic aeroplane.	decrease the flight attitude and bank your airplane to the left until the command bars recentre on the symbolic aeroplane.	decrease the flight attitude and bank your airplane to the right until the command bars recentre on the symbolic aeroplane.						1	0	0	0



1393	22	An aeroplane is in steady cruise at flight level 270. The autothrottle maintains a constant calibrated airspeed. If the total temperature increases, the Mach number :	decreases.	decreases if the outside temperature is higher than the standard temperature, increases if lower.	remains constant.	increases.					0	0	1	0
1394	22	The vertical reference unit of a three-axis data generator is equipped with a gyro with :	1 degree of freedom and horizontal spin axis	1 degree of freedom and vertical spin axis	2 degrees of freedom and vertical spin axis	2 degrees of freedom and horizontal spin axis					0	0	1	0
1395	22	The fields affecting a magnetic compass originate from: 1. magnetic masses 2. ferrous metal masses 3. non ferrous metal masses	1, 2, 4	1, 2, 3	1, 2, 3, 4	1, 3, 4					1	0	0	0
1396	22	The purpose of the automatic trim is to:  1- reduce to zero the hinge moment of the entire control surface in order to relieve the load on the servo-actuator  2- ensure the aeroplane is properly trimmed when the autopilot is disengaged  3- maintain the same stability/manoeuvrability trade-off within the whole flight envelope	1, 3.	2, 3.	1, 2, 3.	1, 2.					0	0	1	0
1397	22	The angle of attack transmitters placed laterally on the forward part of the fuselage supply an electrical signal indicating:  1- the angular position of a wind vane  2- a differential pressure in a probe, depending on the variation of the angle of attack  3- a differential pressure in a probe, depending on the variation of the speed	1, 3.	1, 2.	1, 2, 3.	2, 3.					0	1	0	0
1398	22	The purpose of the altitude alert system is to generate a visual and aural warning to the pilot when the:	airplane altitude is equal to the decision altitude.	proximity to the ground becomes dangerous.	altimeter setting differs from the standard setting above the transition altitude.	airplane altitude differs from a selected altitude.					0	0	0	1
1399	22	The advantages of a D.C. generator tachometer are:  1- easy transmission of the information.  2- independence of the information relative to the airborne electrical power supply.  3- freedom from any spurious current due to the commutator.	2, 3.	1, 3.	1, 2.	1, 2, 3.					0	0	1	0

1400	22	<p>The advantages of single-phase A.C. generator tachometer are:</p> <p>1- the suppression of spurious signals due to a D.C. generator commutator</p> <p>2- the importance of line resistance on the information value</p> <p>3- the independence of the information in relation to the airborne electrical power supply</p> <p>4- the ease of transmission of the information</p>	1, 3.	1, 2, 3, 4.	2, 3, 4.	2, 4.					1	0	0	0
1401	22	<p>The disadvantages of a single-phase A.C. generator tachometer are:</p> <p>1- the presence of spurious signals due to a D.C. generator commutator</p> <p>2- the importance of line resistance on the information value</p> <p>3- the influence of temperature on the tachometer information</p>	2.	1, 2, 3.	1, 2.	1, 3.					1	0	0	0
1402	22	<p>In a modern airplane equipped with an ECAM (Electronic centralized aircraft monitor), when a failure occurs in a circuit, the centralized flight management system:</p> <p>1- releases an aural warning</p> <p>2- lights up the appropriate push-buttons on the overhead panel</p> <p>3- displays the relevant circuit on the system display</p> <p>4- processes the failure automatically</p>	1, 2.	1, 2, 3.	1, 3, 4.	3, 4.					0	1	0	0
1403	22	<p>The engagement of an autopilot is not possible when:</p> <p>1- there is a fault in the electrical power supply</p> <p>2- the controlled-turn knob is not set to centre-off</p> <p>3- there is a synchronization fault in the pitch channel</p> <p>4- there is a fault in the attitude reference unit</p>	1, 2, 4.	2, 3, 4.	1, 3, 4.	1, 2, 3, 4.					0	0	0	1
1404	22	<p>The oncoming stall of a large transport airplane appears in the form of:</p>	control stick vibrations simulating natural buffeting.	an orange light on the warning display.	a natural buffeting which occurs prior to the simulated buffeting.	a bell type warning.					1	0	0	0
1405	22	<p>The voice recorder records on four different channels the following information:</p> <p>1- aural warnings</p> <p>2- radio communications</p> <p>3- conversations between the crew members through the cockpit interphone</p> <p>4- announcements to the passengers</p>	1, 2, 3, 4.	1, 3.	1, 4.	1, 2, 3.					1	0	0	0

1406	22	The stall warning system of a large transport airplane includes:  1- an angle of attack sensor  2- a computer  3- a transmitter originating from the anemometer  4- an independent pitot probe  5- a transmitter of the flap/slat position indicating system	1, 4.	1, 2, 4, 5.	1, 2, 5.	1, 2, 4.						0	0	1	0
1407	22	When, in flight, the needle and ball of a needle-and-ball indicator are on the right, the aircraft is :	tuning left with too much bank	tuning left with not enough bank	tuning right with too much bank	tuning right with not enough bank						0	0	1	0
1408	22	If an aircraft is flying (with flaps and landing gear retracted) in proximity to terrain and its GPWS (Ground Proximity Warning System) get activated, because it is detecting that the aeroplane has an excessive rate of descent, the system provides the following aural warning signals :	"DONT SINK, DONT SINK"	"TERRAIN, TERRAIN" followed by "WHOOOP WHOOOP PULL UP" (twice)	"TOO LOW, TERRAIN" (twice) followed by "TOO LOW GEAR" (twice)	"SINK RATE, SINK RATE" followed by "WHOOOP WHOOOP PULL UP" (twice)						0	0	0	1
1409	22	When, in flight, the needle of a needle-and-ball indicator is on the right and the ball on the left, the aircraft is :	tuning left with too much bank	tuning right with not enough bank	tuning right with too much bank	tuning left with not enough bank						0	1	0	0
1410	22	A turn indicator is built around a gyroscope with:	1 degree of freedom.	3 degrees of freedom.	2 degrees of freedom.	0 degree of freedom.						0	0	1	0
1411	22	If the GPWS (Ground Proximity Warning System) activates, and alerts the pilot with an aural warning "DONT SINK" (twice times), it is because :	the aircraft experiences an unexpected proximity to terrain, without landing-flap selected.	during take-off or missed approach manoeuvre, the aircraft has started to loose altitude.	the aircraft experiences an unexpected proximity to the terrain, with landing gear retracted.	at too low altitude, the aircraft has an excessive rate of descent.						0	1	0	0
1412	22	In the automatic trim control system of an autopilot, automatic trimming is normally effected about the :	pitch axis only.	roll and yaw axes only.	pitch roll and yaw axes.	pitch and roll axes only.						1	0	0	0
1413	22	Which one of the following statements is true with regard to the operation of a Mach trim system :	It only operates above a pre-determined Mach number.	It operates to counteract the larger than normal forward movements of the wing centre of pressure at high subsonic air speeds.	It only operates when the autopilot is engaged.	It operates over the full aircraft speed range.						1	0	0	0
1414	22	In an engine vibration monitoring system for a turbojet any vibration produced by the engine is :	directly proportional to engine speed.	fed directly to the cockpit indicator without amplification or filtering.	amplified and filtered before being fed to the cockpit indicator.	inversely proportional to engine speed.						0	0	1	0
1415	22	Among the systematic errors of the "directional gyro", the error due to the earth rotation make the north reference turn in the horizontal plane. At a mean latitude of 45°N, this reference turns by...	15°/hour to the right.	7.5°/hour to the right.	7.5°/hour to the left.	10.5°/hour to the right.						0	0	0	1

1416	22	The operating principle of Flowmeters, or "unit flow meters," the most commonly used at the present time, is to measure across their system the :	quantity of fuel movement	pressure and temperature of the fuel	volumetric mass and di-electric resistance of the fuel	volume and viscosity of the fuel			1	0	0	0
1417	22	The quantity of fuel in the tanks is measured by capacitor type contents gauges. The working principle of these sensors is to measure the :	di-electric resistivity of the fuel	height of the fuel	volume of the fuel	charge of condensers			0	0	0	1
1418	22	To permit turbine exit temperatures to be measured, gas turbines are equipped with thermometers which work on the following principle:	gas pressure	thermocouple	bi-metallic strip	liquid expansion			0	1	0	0
1419	22	During an acceleration phase at constant attitude, the resetting principle of the artificial horizon results in the horizon bar indicating a :	nose-down attitude	constant attitude	nose-down followed by a nose-up attitude	nose-up attitude			0	0	0	1
1420	22	An aircraft takes-off on a runway with an alignment of 045°. The isogonic line on the area chart indicates 0°. The compass deviation is 0°.  On a take-off with zero wind, the northerly turning error:	will be nul	is such that the compass will indicate a value noticeably below 045°.	is such that the compass will indicate a value noticeably above 045°.	will be nul if the wings are kept level.			0	1	0	0
1421	22	During deceleration following a landing in Northerly direction, the magnetic compass will indicate :	an apparent tum to the East.	an apparent tum to the West.	a heading fluctuating about 360°.	no apparent tum.			0	0	0	1
1422	22	The inputs to the GPWS (Ground Proximity Warning System), are:  1- Air Data Computer - (Mach number and Vertical Speed)  2- Radio Altimeter  3- NAV/ILS (Glide Slope)  4- NAV/VOR  5- Flap (position)	1,2,5,6,7	1,2,3,5,7	2,3,4,5,7	1,2,5,6,7			0	1	0	0
1423	22	Following 180° stabilized turn with a constant attitude and bank, the artificial horizon indicates :	too high pitch-up and too low banking	too high pitch-up and correct banking	attitude and banking correct	too high pitch up and too high banking			1	0	0	0
1424	22	The disadvantages of an "electric" fuel (float) gauge are :  1- the design is complex  2- the indications are influenced by the airplane attitude variations  3- the indications are influenced by the accelerations  4- the indications are influenced by temperature variations  5- that an alternative current supply is necessary  The combination regrouping all the correct statements is :	1	2, 3, 4	1, 2, 3, 4	2, 3, 4, 5			0	1	0	0
1425	22	In an average or heavy weight transport airplane, generally, the fuel quantity is measured by "capacitor" gauges because these give :  1- indications partly independent of fuel temperature variations  2- indications almost independent of the airplane's attitude and accelerations  3- indications expressed in density	1, 3	1, 2	1, 2, 3	2			0	1	0	0

1426	22	The operating principle of an "electronic" tachometer is to measure the:	rotation speed of an asynchronous motor energized by an alternator.	magnetic field produced by a dynamo or an alternator.	frequency of the electric impulse created by a notched wheel rotating in a magnetic field.	electromotive force (EMF) produced by a dynamo or an alternator.					0	0	1	0
1427	22	The operating principle of the "induction" type of tachometer is to measure the:	electromotive force (EMF) produced by a dynamo or an alternator.	frequency of the electric impulse created by a notched wheel rotating in a magnetic field.	magnetic field produced by a dynamo or an alternator.	rotation speed of an asynchronous motor energized by an alternator.					0	0	0	1
1428	22	An automatic landing system which can keep on operating without deterioration of its performances following the failure of one of the autopilots is called "FAIL...":	"REDUNDANT"	"OPERATIONAL"	"PASSIVE"	"SAFE"					0	1	0	0
1429	22	An automatic landing system necessitating that the landing be continued manually in the case of a system failure during an automatic approach is called "FAIL...":	"OPERATIONAL"	"SAFE"	"REDUNDANT"	"PASSIVE"					0	0	0	1
1430	22	The input signal of the amplifier of the gyromagnetic compass resetting device originates from the:	directional gyro erection device.	error detector.	flux valve.	directional gyro unit.					0	1	0	0
1431	22	The heading information originating from the gyromagnetic compass flux valve is sent to the:	error detector.	erector system.	heading indicator.	amplifier.					1	0	0	0
1432	22	The flight data recorder must start data recording automatically:	when lining up.	before the airplane is able to move by under its own power.	when taking-off.	when the landing gear is retracted.					0	1	0	0
1433	22	VFE is the maximum speed :	at which the flaps can be operated.	with the flaps extended in take-off position.	with the flaps extended in a given position.	with the flaps extended in landing position.					0	0	1	0
1434	22	The operating frequency range of a low altitude radio altimeter is:	2700 MHz to 2900 MHz.	5 GHz.	4200 MHz to 4400 MHz.	5400 MHz or 9400 MHz.					0	0	1	0
1435	22	In the northern hemisphere, during deceleration following a landing in an Easterly direction, the magnetic compass will indicate :	a heading fluctuating about 090°.	an apparent turn to the South.	an apparent turn to the North.	a constant heading.					0	1	0	0
1436	22	If the outside temperature at 35 000 feet is -40°C, the local speed of sound is :	686 kt.	596 kt.	247 kt.	307 kt.					0	1	0	0
1437	22	A semi-automatic landing system disconnects itself automatically:	on ground.	when going around.	at approximately 100 ft.	at the decision height.					0	0	1	0
1438	22	The airplane outside air temperature "probe" measures the :	"static" air temperature minus compressibility effects in order to obtain the total temperature.	"total" air temperature minus kinetic heating effects in order to obtain the static temperature.	"static" air temperature minus kinetic heating effects in order to obtain the total temperature.	"total" air temperature minus compressibility effects in order to obtain the static temperature.					0	1	0	0

1439	22	When an aircraft, operating in the VOR coupled mode, approaches the "cone of confusion" over a VOR station, the roll channel of the autopilot :	remains always coupled to the selected VOR radial.	is temporarily disconnected.	temporarily switches over to the heading mode.	is damped by a trim input signal from the lateral trim system.						0	0	1	0
1440	22	Heading information given by a gyro platform, is given by a gyro at :	2 degrees-of-freedom in the vertical axis	1 degree-of-freedom in the horizontal axis	1 degree-of-freedom in the vertical axis	2 degrees-of-freedom in the horizontal axis						0	0	0	1
1441	22	For this question use annex (022-10179A)  Four scenarios of VOR axis interception are represented in the appended annex. The one corresponding to the optimal interception path calculated by a flight director is number :	3	2	1	4						0	1	0	0
1442	22	The requirement to carry a GPWS (Ground Proximity Warning System) concerns aeroplanes which are, depending on their age, weight and passenger capacity :  1- turboprop-powered 2- piston-powered 3- jet-powered	1, 3	1	1, 2, 3	3						1	0	0	0
1443	22	The gyromagnetic compass torque motor :	causes the directional gyro unit to precess	causes the heading indicator to precess	feeds the error detector system	is fed by the flux valve						1	0	0	0
1444	22	A flux valve senses the changes in orientation of the horizontal component of the earth's magnetic field.  1- the flux valve is made of a pair of soft iron bars 2- the primary coils are fed A.C. voltage (usually 487.5 Hz) 3- the information can be used by a "flux gate" compass or a directional gyro 4- the flux gate valve casing is dependent on the aircraft three inertial axis 5- the accuracy on the value of the magnetic field indication is less than 0,5%	2 - 3 - 5	1 - 3 - 4 - 5	3 - 5	1 - 4 - 5						1	0	0	0
1445	22	The flight data recorders must preserve the conversation and aural warnings of the last :	48 hours of operation	30 minutes of operation	25 hours of operation	flight						0	1	0	0
1446	22	A thermocouple can be made of:	a three wire coil.	a single wire coil.	two metal conductors of different nature fixed together at two points.	two metal conductors of the same nature fixed together at two points.						0	0	1	0

1447	22	The main input data to the Stall Warning Annunciator System are :  1- Mach Meter indication  2- Angle of Attack  3- Indicate Airspeed (IAS)  4- Aircraft configuration (Flaps/Slats)	1,4	1,2	2,4	2,3					0	0	1	0
1448	22	In accordance with (ICAO) Annex 6 part I, the flight data recorder is to be located in the aircraft :	at the right or left wing tip	as far to the rear as practicable	as far forward as practicable	as near to the landing gear as practicable					0	1	0	0
1449	22	Magnetic compass swinging is carried out to reduce as much as possible :	acceleration.	deviation.	variation.	regulation.					0	1	0	0
1450	22	In the Southern hemisphere, during deceleration following a landing in a Westerly direction, the magnetic compass will indicate :	no apparent tum.	a heading fluctuating about 270°.	an apparent tum to the North.	an apparent tum to the South.					0	0	1	0
1451	22	The automatic trim is a component of the autopilot pitch channel. Its function is to:	reset the attitude, after engaging (the autopilot).	set the attitude to an instantaneous value before engaging the autopilot.	automatically disengage the autopilot in the case of an excessive pitch up.	transfer a stabilized aeroplane to the pilot during autopilot disengagement.					0	0	0	1
1452	22	The autothrottle :  1- enable to catch and to maintain the N1 RPM  2- enable to catch and to maintain the N2 RPM  3- enable to catch and to maintain an airplane indicated airspeed (IAS)  4- is always engaged automatically at the same time as the autopilot	1 and 3	2 and 3	1 and 4	1, 3 and 4					1	0	0	0
1453	22	The advantages of an "electric" fuel (float) gauge are :  1- easy construction  2- independence of indications with regard to airplane attitude  3- independence of indications with regard to the accelerations  4- independence of indications with regard to temperature variations  5- independence of indications with regard to vibrations	1	1, 2, 3, 4, 5	2, 3, 4, 5	2, 3, 4					1	0	0	0
1454	22	The maximum directional gyro error due to the earth rotation is:	180°/hour	5°/hour	15°/hour	90°/hour					0	0	1	0
1455	22	Landing shall be considered as having been carried out automatically when the autopilot and the auto-throttle of an aircraft are disengaged by flight crew :	at the outer marker.	during ground roll.	during the flare.	at the decision height.					0	1	0	0

1456	22	When the altitude acquisition mode is engaged on a jet transport airplane equipped with autopilot (AP) and auto-throttle (ATS) systems the:	true airspeed (TAS) is maintained constant by the auto-throttle system.	indicated airspeed (IAS) is maintained constant by the auto-throttle system.	indicated airspeed (IAS) is maintained constant by the autopilot by means of elevator.	true airspeed (TAS) is maintained constant by the autopilot by means of elevator.						0	0	1	0
1457	22	The CVR (Cockpit Voice Recorder) includes: 1. a microphone 2. a recorder in compliance with the shock and fire resistance standards 3. an independent battery	1, 2, 3, 4	2, 4	1, 2	1, 4						0	0	1	0
1458	22	The computers of the electrical flight controls system comply with programs defined by attitude control laws such as :  1- on the longitudinal axis, the law may combine the load factor and the changes in the pitch rate as control data sources  2- the trimming is automatic and ensures neutral stability  3- the protections apply to pitch and bank attitudes depending on the speed  4- these laws do not apply to the whole flight envelope  <del>The combination regrouping all the correct statements is:</del>	1, 3, 4	1, 2, 3	2, 3	1, 2, 3, 4						0	1	0	0
1459	22	The synchronization of the autopilot control channel system :  1- enables the prevention of jerks during disengagement 2- enables the cancellation of rudder control signals 3- enables the prevention of jerks during engagement 4- functions in the heading, navigation, approach modes  The combination regrouping all the correct statements is:	3, 4	2, 4	1, 4	2, 3						1	0	0	0
1460	22	A Full Authority Digital Engine Control (FADEC) has the following functions :  1- flow regulation (fuel, decelerations and accelerations monitoring) 2- automatic starting sequence 3- transmissions of engine data to the pilot's instruments 4- thrust management and protection of operation limits 5- monitoring of the thrust reversers	1, 3, 4, 5	1, 2, 3, 4, 5	2, 4, 5	1, 3, 5						0	1	0	0



1461	22	<p>In a 3-phase synchronous motor type tachometer indicator :</p> <p>1- the transmitter is a direct current generator</p> <p>2- the voltage is proportional to the transmitter drive speed</p> <p>3- the frequency is proportional to the transmitter drive speed</p> <p>4- the speed indicating element is a galvanometer</p> <p>5. the speed indicating element is an asynchronous motor driving a magnetic tachometer</p> <p>The combination regrouping all the correct statements is:</p>	3, 5	1, 2	2, 5	1, 4					1	0	0	0
1462	22	<p>The two main sources of information used to calculate turbojet thrust are the:</p>	fan rotation speed (or N1) or the total pressure at the low pressure turbine outlet.	fan rotation speed (or N1) or the EPR (Engine Pressure Ratio).	high pressure turbine rotation speed or the EPR (Engine Pressure Ratio).	fan rotation speed (or N1) or the total pressure at the high pressure compress or outlet.					0	1	0	0
1463	22	<p>A cockpit voice recorder (CVR) will record :</p> <p>1. the information exchanged by the cabin crew</p> <p>2. the conversations between the crew members and voice communications transmitted from or received on the flight deck by radio</p> <p>3. the announcements made via the public address even if it has not been selected</p> <p>4. the conversations and alarms audible in the cockpit</p> <p>5. the captain conversations only</p>	1, 5	2, 4	3, 4	1, 2					0	1	0	0
1464	22	<p>An "altitude warning system" must at least warn the crew :</p> <p>1- when approaching the pre-selected altitude</p> <p>2- when the airplane is approaching the ground too fast</p> <p>3- in case of a given deviation above or below the pre-selected altitude (at least by an aural warning)</p> <p>4- in case of excessive vertical speed</p> <p>5- when approaching the ground with the gear retracted</p> <p>The combination regrouping all the correct statements is :</p>	1, 2, 3, 4, 5	2, 4, 5	1, 3, 4	1, 3					0	0	0	1
1465	22	<p>In an auto-pilot slaved powered control circuit, the system which ensures synchronisation :</p>	prevents uncommanded surface deflection when the automatic pilot is disengaged.	is inhibited when the automatic pilot is engaged.	can itself, when it fails, prevent the automatic pilot from being engaged.	intervenes only when the automatic pilot has been engaged.					0	0	1	0
1466	22	<p>The purpose of an airplane automatic trim system is to trim out the hinge moment of the :</p>	rudder(s)	elevator(s) and rudder(s)	elevator(s), rudder(s) and ailerons.	elevator(s)					0	0	0	1

1467	22	The automatic power control system (autothrottle) of a transport airplane has the following mode(s) :  1- capture and holding of speeds 2- capture and holding of Mach number 3- capture and holding of flight angle of attack 4- capture and holding of N1 or EPR (Engine Power Ratio) 5- capture and holding of flight paths	1, 2, 4	1, 2, 3, 5	2, 4	1, 4, 5						1	0	0	0
1468	22	A landing is performed automatically when the autopilot and auto-throttle ensure good performance from the final approach :	until the flare.	until reaching decision height.	during the landing roll and sometimes until the aircraft comes to a complete stop.	until reaching 100 ft, height at which point the autopilot is automatically disconnected.						0	0	1	0
1469	22	The flight data recorder must automatically stop data recording when the:	landing gear is extended and locked.	airplane clears the runway.	airplane cannot any longer move by its own power.	main gear shock strut compresses when touching the runway.						0	0	1	0
1470	22	The functions of an autopilot (basic modes) consist of :	guiding the airplane path.	stabilizing and monitoring the movement around the airplane aerodynamic centre.	stabilizing and monitoring the movement around the airplane centre of gravity.	monitoring the movement of the airplane centre of gravity.						0	0	1	0
1471	22	A pilot engages the control wheel steering (CWS) of a conventional autopilot and carries out a manoeuvre in roll. When the control wheel is released, the autopilot will :	restore the flight attitude and the rate of turn selected on the autopilot control display unit.	maintain the flight attitude obtained at that moment.	roll wings level and maintain the heading obtained at that moment.	maintain the track and the flight attitude obtained at that moment.						0	1	0	0
1472	22	A slaved directional gyro derives it's directional signal from :	a direct reading magnetic compass.	the flight director.	the flux valve.	the air-data-computer.						0	0	1	0
1473	22	If the tanks of your airplane only contain water, the capacitor gauges indicate:	a mass equal to the mass of a same volume of fuel.	a mass of water different from zero, but inaccurate.	the exact mass of water contained in the tanks.	a mass equal to zero.						0	1	0	0

1474	22	From a flight mechanics point of view, the "guidance" functions of a transport airplane autopilot consist in:	stabilizing and monitoring the movements around the aerodynamic centre.	monitoring the movements of the centre of gravity in the three dimensions of space (path).	stabilizing and monitoring the movements around the centre of gravity.	monitoring the movements of the aerodynamic centre in the three dimensions of space (path).						0	1	0	0
1475	22	During a Category II automatic approach, the height information is supplied by the :	altimeter.	radio altimeter.	GPS (Global Positioning System).	encoding altimeter.						0	1	0	0
1476	22	Except for airplanes under 5,7 t airworthiness certificate of which is subsequent to 31 march 1998, a flight data recording system must be able to store the recorded data for a minimum of the last :	10 hours.	30 minutes.	60 minutes.	25 hours.						0	0	0	1
1477	22	The autopilot basic modes include, among other things, the following functions :  1- pitch attitude hold 2- pressure altitude hold 3- horizontal wing hold 4- heading hold	1, 4	1, 3	1, 2, 3, 4	1, 2, 3						0	1	0	0
1478	22	The basic principle used for measuring a quantity of fuel in a transport airplane equipped with "capacitor" gauges is that the:	internal resistance of a capacitor depends on the nature of the dielectric in which it is immersed.	capacity of a capacitor depends on the distance between its plates.	electromotive force of a capacitor depends on the nature of the dielectric in which it is immersed.	capacity of a capacitor depends on the nature of the dielectric in which it is immersed.						0	0	0	1
1479	22	The Engine Pressure Ratio (EPR) is computed by :	dividing turbine discharge pressure by compressor inlet pressure.	dividing compressor discharge pressure by turbine discharge pressure.	multiplying compressor inlet pressure by turbine discharge pressure.	multiplying compressor or discharge pressure by turbine inlet pressure.						1	0	0	0
1480	22	The command bars of a flight director are generally represented on an:	HSI (Horizontal Situation Indicator)	RMI (Radio Magnetic Indicator)	ILS (Instrument Landing System)	ADI (Attitude Director Indicator)						0	0	0	1
1481	22	A thermocouple type thermometer consists of:	a single-wire metal winding.	two metal conductors of different type connected at one point.	two metal conductors of the same type connected at two points.	a Wheatstone bridge connected to a voltage indicator.						0	1	0	0

1482	22	The disadvantage of an electronic rpm indicator is the :	necessity of providing a power supply source.	generation of spurious signals at the commutator.	influence of temperature on the indication.	high influence of line resistance on the indication.						1	0	0	0
1483	22	In a transport airplane, an autopilot comprises, in addition to the mode display devices, the following fundamental elements :  1- Airflow valve 2- Sensors 3- Comparators 4- Computers 5- Amplifiers	1, 3, 4, 6	1, 2, 6	2, 3, 4, 5, 6	2, 3, 4, 5						0	0	1	0
1484	22	The principle of capacity gauges is based on the:	capacitance variation by the volume measurement carried out on the sensor.	flow rate and torque variation occurring in a supply line.	capacitance variation of a given capacitor with the type of dielectric.	current variation in the Wheatstone bridge.						0	0	1	0
1485	22	The Head Up Display (HUD) is a device allowing the pilot, while still looking outside, to have:	a monitoring only during Cat III precision approaches.	a synthetic view of the instrument procedure.	a flying and flight path control aid.	a monitoring of engine data.						0	1	0	0
1486	22	The control law of a transport airplane autopilot control channel may be defined as the relationship between the :	computer input deviation data and the signals received by the servactuators.	input and output signals at the amplifier level respectively control deviation data and control deflection signals.	crew inputs to the computer and the detector responses (returned to the airplane).	computer input deviation data and the output control deflection signals.						0	0	0	1
1487	22	Flight recorder duration must be such that flight data, cockpit voice and sound warnings may respectively be recorded during at least:	20 hours for flight data, 15 minutes for cockpit voices and warnings homs.	48 hours for flight data, 60 minutes for cockpit voices and warnings homs	25 hours for flight data, 30 minutes for cockpit voices and warnings homs.	24 hours for flight data, 60 minutes for cockpit voices and warnings homs.						0	0	1	0
1488	22	When flying from a sector of warm air into one of colder air, the altimeter will :	underread.	be just as correct as before.	show the actual height above ground.	overread.						0	0	0	1