

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

STUDENT NAME:

DATE AND TIME:

01. Given: Dry operating mass (DOM)= 33000 kg Traffic Load= 8110 kg. Final reserve fuel= 983 kg Alternate fuel= 1100 kg Contingency fuel 102 kg. The estimated landing mass at alternate should be:

- a) 41110 kg.
- b) 42195 kg.
- c) 42312 kg.
- d) 42210 kg.

02. An aeroplane is carrying a traffic load of 10320 kg. Complete the necessary sections of the attached appendix and determine which of the answers given below represents the maximum increase in the traffic load

- a) 7000 kg
- b) 8268 kg
- c) 1830 kg
- d) 655 kg

03. What does the term 'air-ground communication' mean?

- a) One-way communication from aircraft to stations or locations on the surface of the earth
- b) One-way communication from stations or locations on the surface of the earth
- c) Two-way communication between aircraft and stations or locations on the surface of the earth
- d) Any communication from aircraft to ground station requiring handling by the Aeronautical Fixed Telecommunication Network (AFTN)

04. An aeroplane is flying through the transonic range. As the Mach Number increases the centre of pressure of the wing will move aft. This movement requires:

- a) A pitch up input of the stabilizer.
- b) A higher IAS to compensate the nose down effect.
- c) Much more thrust from the engine.
- d) A stability augmentation system to improve dynamic stability.

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

05. A departing aircraft experiencing radio communication failure on an IFR flight under radar vectors has to:

- a) Squawk 7600 and thereafter return to the route indicated in the current flight plan in the most direct manner
- b) Squawk 7600 and thereafter, regardless of any limitation instructed by ATC, return to the route indicated in the current flight plan on the shortest way
- c) Squawk 7600, maintain present heading for 1 minute and thereafter return to the route indicated in the current flight plan on the shortest way
- d) Squawk 7600 and maintain the heading last assigned by ATC for a period of 3 minutes and then return to the flight path in accordance with the current flight plan

06. Information received from the senses is lost:

- a) Within 10 - 20 seconds unless it is rehearsed and deliberately placed in the Long Term Memory.
- b) Only if you suffer from brain damage or disease.
- c) If you choose to store the information in one of the sensory memories (e.g. Iconic or Echoic memories).
- d) If an additional action takes place (e.g.: pulling a circuit breaker or extinguishing a warning light).

07. Which word or phrase shall be used in order to repeat for clarity or emphasis?

- a) Confirm
- b) Read back
- c) I say again
- d) Verify

08. Which is the correct sequence of speeds during take-off?

- a) VMCG, V1, VR, V2
- b) V1, VR, V2, VMCA
- c) V1, VR, VMCG, V2
- d) V1, VMCG, VR, V2

09. The diameter of the Earth is approximately:

- a) 12 700 km
- b) 40 000 km
- c) 18 500 km
- d) 6 350 km

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

10. A braking action given by ATS of 0.25 and below is:

- a) Medium / Poor
- b) Good
- c) Poor
- d) Medium

11. In order to indicate an emergency situation, the aircraft Secondary Surveillance Radar (SSR) transponder should be set to:

- a) 7600
- b) 7700
- c) 7000
- d) 7500

12. The yaw damper system sends a motion order to the rudder if the yawing rate of the aircraft:

- a) Is > 1 only.
- b) Is not constant.
- c) Is constant.
- d) Is > 0 only.

13. What is decompression sickness?

- a) A disorder which is solely encountered below 18,000 ft
- b) A frequent disorder in commercial aviation due to the pressurisation curve of modern aircraft
- c) The formation of air bubbles in bodily tissues, with no consequences for people's capabilities
- d) A condition resulting from the formation of nitrogen bubbles in bodily tissues and fluids after a cabin pressure loss at high altitude

14. Large transport aeroplane hydraulic systems usually operate with a system pressure of approximately:

- a) 3000 psi
- b) 1000 psi
- c) 2000 psi
- d) 4000 psi

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

15. An island appears 60° to the left of the centre line on an airborne weather radar display. What is the true bearing of the aircraft from the island if at the time of observation the aircraft was on a magnetic heading (MH) of 276° with the magnetic variation (VAR) 10°E?

- a) 046°
- b) 026°
- c) 226°
- d) 086°

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

16. Complete line 3 of the 'FLIGHT NAVIGATION LOG', positions 'E' to 'F'. What is the HDG°(M) and ETA?

Line No.	Time	Course/ Track (T)	W/V	HDG (T)	VAR	HDG (M)	POSITION FROM TO	CAS/ MACH	FL OAT	TAS	GS	DIST	TIME	ETA
1	1015	270	050/40		7E		A B	210	180 -20			300		
2	1050	180	320/50		5W		C D	175	160 -10			480		
3	1125	090	140/60		10W		E F	M 0.82	350 -40			300		
4	1210	360	315/70		10E		G H	M 0.78	310 -35			600		
5	1245	330	240/30		17W		J K	150	100 -10			275		
6	1355	070	020/60		11W		L M	M 0.84	390 -55			495		

- a) HDG 095° - ETA 1155 UTC
- b) HDG 105° - ETA 1205 UTC
- c) HDG 115° - ETA 1145 UTC
- d) HDG 106° - ETA 1215 UTC

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

17. On what data is a VOR/DME Area Navigation system operating in the dead reckoning mode?

- a) TAS from the Air Data Computer
- b) Heading from the aircraft compass
- c) TAS from the Air Data Computer
- d) Radial from one VOR; distances from two DMEs

18. What is the minimum field length required for the worst wind situation, landing a twin jet aeroplane with the anti-skid inoperative? Elevation: 2000 ft QNH: 1013 hPa Landing mass: 50 000 kg Flaps: as required for minimum landing distance Runway condition: dry Wind: Maximum allowable tailwind: 15 kt Maximum allowable headwind: 50 kt

- a) 2600 m.
- b) 3100 m.
- c) 2900 m.
- d) 2700 m.

19. Decision making in emergency situations requires firstly:

- a) Speed of reaction
- b) Delegation of tasks and crew coordination
- c) The whole crew to focus on the problem
- d) Informing ATC thoroughly about the situation

20. With regard to the practice of English, which of the following statements is correct?

- a) All pilots should master it because the aeronautical world needs one common language.
- b) The composition of every crew should be geared to a command of the official aeronautical language of the destination country.
- c) It is necessary and sufficient to have a command of any of the official languages of the ICAO.
- d) Be familiar with normal procedures in English since only this allows for effective management of any flight's communication.

21. A flight control surface actuator is said to be "reversible" when:

- a) The pilot does not feel any force when moving that flight control surface in flight.
- b) There is feedback to the pilot's controls of the aerodynamic forces acting on the control surface.
- c) The flight control system has an alternate means of control in case of a control jam.
- d) There is a need to have an artificial feel system.

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

22. The pressoreceptors are located in

- a) The intestines
- b) The carotid and aortic arterial vessels
- c) The lungs
- d) The heart

23. A line drawn on a chart which joins all points where the value of magnetic variation is zero is called an:

- a) Isogonal
- b) Aclinic line
- c) Isotach
- d) Agonic line

24. Which of the following is the correct suffix for the ATC unit controlling the traffic on the ground at an airport?

- a) Radar
- b) Approach
- c) Ground
- d) Delivery

25. Considering an airspeed indicator, a second striped needle, if installed, indicates:

- a) Never-exceed speed (VNE)
- b) Maximum operating speed (VMO)
- c) Never-exceed speed (VNE) or maximum operating speed (VMO), depending on which is the higher
- d) Never-exceed speed (VNE) or maximum operating speed (VMO), depending on which is the lowest

26. What does the term 'broadcast' mean?

- a) A radiotelephony transmission from ground station to aircraft in flight
- b) A transmission where no reply is required from the receiving station
- c) A transmission of information relating to air navigation that is not addressed to a specific station or stations
- d) A transmission containing meteorological and operational information to aircraft engaged in flights over remote and oceanic areas out of range of VHF ground stations

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

27. Regarding take-off, the take-off decision speed V1?

- a) Is the airspeed on the ground at which the pilot is assumed to have made a decision to continue or discontinue the take-off.
- b) Is the airspeed of the aeroplane upon reaching 35 feet above the take-off surface.
- c) Is an airspeed at which the aeroplane is airborne but below 35 ft and the pilot is assumed to have made a decision to continue or discontinue the take-off.
- d) Is always equal to VEF (Engine Failure speed).

28. Which of the following statements is applicable to the acceleration height at the beginning of the 3rd climb segment?

- a) There is no requirement for minimum climb performance when flying at the acceleration height
- b) The minimum legally allowed acceleration height is at 1500'
- c) The minimum one engine out acceleration height must be maintained in case of all engines operating
- d) The maximum acceleration height depends on the maximum time take-off thrust may be applied

29. With all engines out, a pilot wants to fly for maximum time. Therefore he has to fly the speed corresponding to:

- a) The minimum power required
- b) The maximum lift
- c) The minimum angle of descent
- d) The critical Mach number

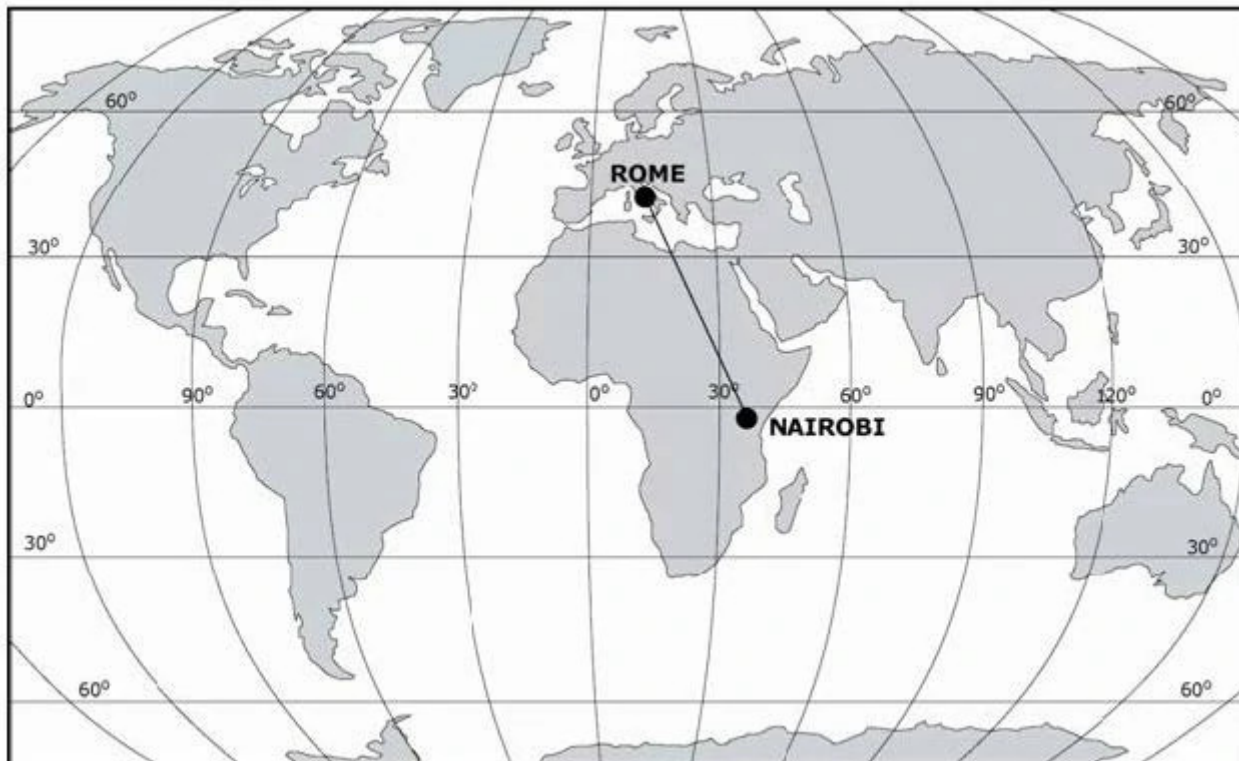
Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

30. Considering the sector from 10°N to Nairobi of the route indicated, during January the upper winds at the 300 hPa level are most likely to be



- a) Easterly jet streams in excess of 70 kt
- b) Light easterlies
- c) Westerlies at 40 kt
- d) Westerlies in excess of 60 kt

31. Interception. If any instructions received by radio from any sources conflict with those given by the intercepting aircraft by visual signals, the intercepted aircraft shall:

- a) Ignore the signals of the intercepting aircraft and request instructions from the appropriate ATS unit.
- b) Follow the instructions of the intercepting aircraft and request immediate clarification.
- c) Select transponder mode A, squawk 7600, fly holding patterns until having received instructions from the appropriate ATS unit.
- d) Ignore the signals of the intercepting aircraft and continue in accordance with the last clearance received and confirmed by the appropriate ATS unit.

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

32. The MIDDLE MARKER of an Instrument Landing System (ILS) facility is identified audibly and visually by a series of:

- a) Two dashes per second and a blue light flashing
- b) Dots and a white light flashing
- c) Alternate dots and dashes and an amber light flashing
- d) Dashes and an amber light flashing

33. Urgency is defined as:

- a) A condition concerning the safety of an aircraft, other vehicles or of a person on board, but which does not require immediate assistance
- b) A condition of being threatened by serious and/or imminent danger and of requiring immediate assistance
- c) A condition concerning the attitude of an aircraft when intercepting the localizer during an ILS approach
- d) A condition concerning the safety of a person on board or within sight and requiring immediate assistance

34. On the display of a TCAS II (Traffic alert and Collision Avoidance System), a traffic advisory (TA) is represented by:

- a) A white or cyan empty lozenge.
- b) A white or cyan solid lozenge.
- c) An amber solid circle.
- d) A red full square.

35. The retina of the eye

- a) Is the light-sensitive inner lining of the eye containing the photoreceptors essential for vision
- b) Only regulates the light that falls into the eye
- c) Is the muscle, changing the size of the crystalline lens
- d) Filters the UV-light

36. A signal sent by radiotelephony consisting of the spoken word MAYDAY MAYDAY MAYDAY means:

- a) The aircraft has a very urgent message to transmit concerning the safety of a ship, aircraft or vehicle
- b) The aircraft has a message to transmit concerning adverse weather conditions along its route of flight
- c) Imminent danger threatens the aircraft and immediate assistance is required
- d) The aircraft is forced to perform a fuel dumping procedure

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

37. The term drift refers to the wander of the axis of a gyro in:

- a) the vertical plane
- b) the vertical and horizontal plane
- c) the horizontal plane
- d) any plane

38. 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:

- a) (i) static pressure at time t (ii) static pressure at time t - dt
- b) (i) total pressure (ii) static pressure
- c) (i) vacuum (or a very low pressure) (ii) static pressure
- d) (i) static pressure (ii) total pressure

39. The frequency which corresponds to a wavelength of 12 cm is:

- a) 2500 MHz.
- b) 3600 MHz.
- c) 360 MHz.
- d) 2500 kHz.

40. What is the correct way of expressing visibility?

- a) Visibility 1200 feet
- b) Visibility 1.2 nautical miles
- c) Visibility 1200 metres
- d) Visibility 1.2 kilometres

41. What are the modulation frequencies of the two overlapping lobes that are used on an ILS approach?

- a) 90 Hz, 150 Hz
- b) 63 MHz, 123 MHz
- c) 328 MHz, 335 MHz
- d) 75 kHz, 135 kHz

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

42. 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:

- a) 160°
- b) 170°
- c) 200°
- d) 190°

43. The mass of an item multiplied by its distance from the datum is its

- a) Moment
- b) Force
- c) Moment arm
- d) Centre of gravity

44. If the centre of gravity is near the forward limit the aeroplane will:

- a) Benefit from reduced drag due to the decrease in angle of attack.
- b) Require less power for a given airspeed.
- c) Require elevator trim which will result in an increase in fuel consumption.
- d) Tend to over rotate during take-off.

45. Overcast layer of stratus clouds with bases at 200 ft AGL is observed at sunrise at an aerodrome in the north of France. The QNH is 1028 hPa and there is a variable wind of 3 kts. What change in these clouds is likely at 12:00 UTC in summer and winter?

- a) Winter: clear sky / Summer: BKN CB base 1500 ft AGL.
- b) Winter: SCT base 3000 ft AGL / Summer: OVC base 500 ft AGL.
- c) Winter: BKN base 2500 ft AGL / Summer: BKN base 3500 ft AGL.
- d) Winter: OVC base 500 ft AGL / Summer: SCT base 3000 ft AGL.

46. A runway is considered damp when:

- a) Its surface is not dry, and when surface moisture does not give it a shiny appearance.
- b) It is covered with a film of water of less than 1 mm.
- c) It is covered with a film of water of less than 3 mm.
- d) Surface moisture gives it a shiny appearance.

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

47. Flutter results from two deformation modes which are:

- a) Torsion and shearing.
- b) Bending and elongation.
- c) Torsion and bending.
- d) Shearing and elongation.

48. An aeroplane whose maximum approved passenger seating configuration is 7 to 30 seats must be equipped with at least:

- a) 2 hand fire-extinguishers conveniently located in the passenger compartment.
- b) 3 hand fire-extinguishers conveniently located in the passenger compartment.
- c) 1 hand fire-extinguisher conveniently located in the passenger compartment.
- d) 4 hand fire-extinguishers conveniently located in the passenger compartment.

49. What are the images of satellites provided daily by the Weather Service used for?

- a) To measure wind currents on the ground
- b) To locate fronts in areas with few observation stations
- c) To locate precipitation zones
- d) To help provide 14-day forecasts

50. A "Bourdon tube" is used in:

- a) Smoke detectors.
- b) Vibration detectors.
- c) Turbine temperature probes.
- d) Pressure sensors.

51. Given: Distance from departure to destination: 210 NM Endurance: 2,5 h True Track: 035 W/V: 250/20 TAS: 105 kt. What is the distance of the PSR from the departure point?

- a) 64 NM
- b) 88 NM
- c) 172 NM
- d) 127 NM

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

52. The Zero Fuel Mass and the Dry Operating Mass

- a) Differ by the sum of the mass of usable fuel plus traffic load mass.
- b) Are the same value.
- c) Differ by the mass of usable fuel.
- d) Differ by the value of the traffic load mass.

53. Which UK Flight Information Services are available to VFR flights in Class G airspace?

- a) Basic Service only.
- b) Traffic Service only.
- c) Basic Service and Traffic Service.
- d) Deconfliction Service and Procedural Service.

54. For the purpose of aeroplane mass and balance calculations, the datum point is defined as:

- a) A point near the centre of the aeroplane. It moves longitudinally as masses are added forward and aft of its location.
- b) The point through which the sum of the mass values (of the aeroplane and its contents) is assumed to act vertically.
- c) A variable point, that is dependent on the load distribution for its location, from which all balance arms are measured
- d) A fixed point from which all balance arms are measured. It may be located anywhere on the aeroplane's longitudinal axis or on the extensions to that axis.

55. Consider the following statements on rhumb lines:

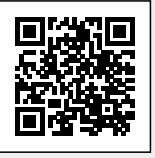
- a) A rhumb line and a great circle will never have the same true direction for some distance.
- b) A rhumb line will never cross a great circle.
- c) The true direction of a rhumb line on the northern hemisphere will increase in true direction, while on southern hemisphere it will decrease.
- d) Most rhumb lines will run spirals from the one polar to another.

56. The distress signal and the distress message to be sent by an aircraft in distress be on:

- a) The emergency frequency in any case
- b) The air-ground frequency in use at the time
- c) The FIS frequency designated for the airspace concerned
- d) The regional guard frequency

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

57. What does the phrase 'Read back' mean:

- a) Repeat all, or the specified part, of this message back to me exactly as received
- b) Check and confirm with originator
- c) Did you correctly receive this message?
- d) Let me know that you have received and understood this message

58. The approximate inclined plane of a warm front is:

- a) 1/150
- b) 1/500
- c) 1/300
- d) 1/50

59. When an aircraft flies into a horizontal tail wind gust the aircraft tends:

- a) To climb
- b) To descend
- c) To climb or descend, depending on the gust strength
- d) Not to change its trajectory

60. In case of accidental closing of an aircraft's left static pressure port (rain, birds), the altimeter:

- a) Overreads the altitude in case of a side-slip to the right and displays the correct information during symmetric flight.
- b) Overreads the altitude in case of a sideslip to the left and displays the correct information during symmetric flight.
- c) Underreads the altitude.
- d) Keeps on providing reliable reading in all situations

61. The most important problem of ice accretion on a transport aeroplane during flight is:

- a) Increase in weight
- b) Increase in drag
- c) Reduction in CLmax
- d) Blocking of control surfaces

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

62. In the ground-air emergency code the symbol "X" means:

- a) Require medical assistance.
- b) Place suitable for helicopter landing.
- c) Yes.
- d) Require assistance.

63. On the ground, during a left turn, the turn indicator indicates:

- a) Needle to the left, ball to the left
- b) Needle to the left, ball to the right
- c) Needle in the middle, ball to the left
- d) Needle in the middle, ball to the right

64. Which one of the following statements concerning the formation of aircraft icing is most correct ?

- a) A cloud consisting of both supercooled water droplets and ice crystals produces aircraft icing
- b) Probability of icing increases when dry snow starts to fall from a cloud.
- c) Risk for icing increases when cloud temperature decreases well below minus 12 degrees
- d) Greatest risk of icing conditions is experienced in cirrus clouds.

65. What is the most effective flap system?

- a) Split flap
- b) Plain flap
- c) Fowler flap
- d) Single slotted flap

66. The surveillance radar approach shall be terminated at a distance of 2 NM from the touchdown except when as determined by the appropriate ATS authority, the accuracy of the radar equipment permits to be continued to a prescribed point less than 2 NM from the touchdown. In this case distance and level information shall be given at each

- a) 1 NM
- b) Half NM
- c) Half mile
- d) 1.5 NM

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

67. When an ATC flight plan is submitted for a flight outside designated ATS routes, points included in Item 15 (route) should not normally be at intervals of more than:

- a) 20 minutes flying time or 150 km
- b) 15 minutes flying time or 100 km
- c) 30 minutes flying time or 370 km
- d) 1 hour flying time or 500 km

68. In which phase of the take-off is the aerodynamic effect of ice located on the wing leading edge most critical?

- a) The last part of the rotation
- b) All phases of the take-off are equally critical
- c) During climb with all engines operating
- d) The take-off run

69. Load factor is:

- a) Lift/Weight
- b) Wing loading
- c) $1/\text{Bank angle}$
- d) Weight/Lift

70. Which of the following statements concerning jet streams is correct?

- a) In the northern hemisphere only westerly jet streams occur
- b) In the northern hemisphere both westerly and easterly jet streams occur
- c) In the southern hemisphere only easterly jet streams occur
- d) In the southern hemisphere no jet streams occur

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

Response Scheme

Compare your answers with the following diagram and mark your score!

01: B	02: C	03: C	04: A
05: A	06: A	07: C	08: A
09: A	10: C	11: B	12: B
13: D	14: A	15: A	16: B
17: B	18: B	19: B	20: A
21: B	22: B	23: D	24: C
25: B	26: C	27: A	28: D
29: A	30: B	31: B	32: C
33: A	34: C	35: A	36: C
37: C	38: C	39: A	40: C
41: A	42: A	43: A	44: C
45: D	46: A	47: C	48: B
49: B	50: D	51: D	52: D
53: C	54: D	55: D	56: B
57: A	58: A	59: A	60: B
61: C	62: A	63: B	64: A
65: C	66: B	67: C	68: A
69: A	70: B		

Exam simulation

ATPL - Airline Transport Pilot license - Human Performance and Limitations



QuizVds.it

Response form

Use this form to mark your answers

01: _____	02: _____	03: _____	04: _____
05: _____	06: _____	07: _____	08: _____
09: _____	10: _____	11: _____	12: _____
13: _____	14: _____	15: _____	16: _____
17: _____	18: _____	19: _____	20: _____
21: _____	22: _____	23: _____	24: _____
25: _____	26: _____	27: _____	28: _____
29: _____	30: _____	31: _____	32: _____
33: _____	34: _____	35: _____	36: _____
37: _____	38: _____	39: _____	40: _____
41: _____	42: _____	43: _____	44: _____
45: _____	46: _____	47: _____	48: _____
49: _____	50: _____	51: _____	52: _____
53: _____	54: _____	55: _____	56: _____
57: _____	58: _____	59: _____	60: _____
61: _____	62: _____	63: _____	64: _____
65: _____	66: _____	67: _____	68: _____
69: _____	70: _____		