

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

STUDENT NAME:

DATE AND TIME:

## 01. What needs to be observed in particular when performing a slope landing?

- a) Direction of rotation of the main rotor
- b) Slipping of the helicopter
- c) Width of the landing skids.
- d) Faulty navigation lights.

## 02. What clouds and weather can typically be observed during the passage of a cold front?

- a) In coastal areas during daytime wind from the coast and forming of cumulus clouds, dissipation of clouds during evening and night
- b) Cirrus, thickening altostratus and altocumulus clouds, lowering cloud base with rain, nimbostratus
- c) Wind becoming calm, dissipation of clouds and warming during summer; formation of extended high fog layers during winter
- d) Strongly developed cumulus clouds (Cb) with showers of rain and thunderstorms, gusting wind followed by cumulus clouds with isolated showers of rain

## 03. What does the dynamic pressure depend directly on?

- a) Lift- and drag coefficient
- b) Air pressure and air temperature
- c) Air density and airflow speed squared
- d) Air density and lift coefficient

## 04. Which statement about the required force to change the pitch angle is correct?

- a) It is the smallest by using an advance angle of  $90^\circ$
- b) It is the smallest by using a delta-three-hinge
- c) It must be greater than the rotor disc loading
- d) It must be greater than the tangential force

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

**05. A transponder with the ability to send the current pressure level is a...**

---

- a) Pressure-decoder
- b) Transponder approved for airspace "B"
- c) Mode A transponder
- d) Mode C or S transponder

**06. What kind of drag is caused by a lift-producing aerofoil?**

---

- a) Parasite drag
- b) Frictional drag
- c) Interference drag
- d) Induced drag

**07. Why do helicopters with a semi-rigid rotor system react slower than others?**

---

- a) The central flapping hinge does not transmit any moments
- b) The missing lag hinges cause a rotor imbalance
- c) The lowered attachment of the rotor blades allows a transmission of forces
- d) The angled lag hinges prevent the transmission of aerodynamic forces on the helicopter frame

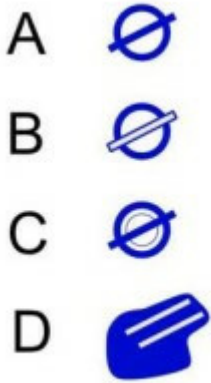
# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

**08. (For this question, please use annex PFP-062) According ICAO, what symbol indicates a civil airport (not international airport) with paved runway? (2,00 P.) Siehe Anlage 17**



- a) B
- b) C
- c) D
- d) A

**09. Smoke enters the cockpit during an engine fire. Which actions have to be taken immediately?**

- a) Switching off the pitot and front window heating
- b) Switching off the master switch and the ignition
- c) Switching off the heating and the ventilating system
- d) Switching off the avionics and the cabin lighting

**10. What should be considered regarding a scheduled flight over water, when land cannot be reached in case of an emergency landing?**

- a) The flight plan has to contain the exact waypoints
- b) Contact to the nearest ATC shall consist during the whole flight
- c) Transponder code 7600 has to be set during the whole flight
- d) For all passengers there must be life jackets or lifeboats present

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

**11. What is the message of the NOTAM shown below? B7938/11 NOTAMN Q) LECB/QMRLC/IV/NBO/A /000/999/3933N00244E005 A) LEPA B) 1111212200 C) 1111220500 E) RWY 24L/06R CLOSED**

---

- a) Runway 24L/06R at Palma de Mallorca (LEPA) airport will be closed from November 21st 2011 2200 local time until November 22nd 2011 0500 local time
- b) Runway 24L/06R at Palma de Mallorca (LEPA) airport will be closed from November 21st 2011 2200 UTC until November 22nd 2011 0500 UTC
- c) Runway 24L/06R at Palma de Mallorca (LEPA) airport will be closed from present time (000) indefinitely (999)
- d) Runway 24L/06R at Cataluña/Barcelona (LECB) airport will be closed from November 21st 2011 2200 UTC until November 22nd 2011 0500 UTC

**12. What is the meaning of a flashing red light signal at a controlled aerodrome directed to an aircraft in flight?**

---

- a) Cleared to land
- b) Airport unsafe, do not land
- c) Give way to other aircraft and continue circling
- d) Return for landing, followed by steady green at the appropriate time

**13. What wind conditions can be expected in areas showing large distances between isobars?**

---

- a) Strong prevailing easterly winds with rapid backing
- b) Formation of local wind systems with strong prevailing westerly winds
- c) Variable winds, formation of local wind systems
- d) Strong prevailing westerly winds with rapid veering

**14. Given: QTE: 229° VAR: 10° W The QDM equals...**

---

- a) 239°.
- b) 049°.
- c) 039°.
- d) 059°.

**15. Clouds are basically distinguished by what types?**

---

- a) Layered and lifted clouds
- b) Cumulus and stratiform clouds
- c) Thunderstorm and shower clouds
- d) Stratiform and ice clouds

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

**16. An autorotation in a mountainous area is performed:**

---

- a) Downwind under obstacles observance.
- b) Upslope without any yawing.
- c) Downslope with inclined rotor.
- d) Upwind and across the slope.

**17. What is the percentage of nitrogen in the atmosphere?**

---

- a) 78 %
- b) 21 %
- c) 0.1 %
- d) 1 %

**18. What is the distance between the two parallels of longitude 150°E and 151°E along the equator?**

---

- a) 111 NM
- b) 1 NM
- c) 60 km
- d) 60 NM

**19. How do you call fuel mixtures with a high amount of fuel?**

---

- a) Rich
- b) Empty
- c) Full
- d) Lean

**20. A gyro which is rotating in space responds to forces being applied to it by an evasive movement...**

---

- a) At an angle of 45° to the force being applied.
- b) In a northern direction.
- c) At an angle of 90° to the force being applied.
- d) At an angle of 180° to the force being applied.

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

## 21. Which ratio corresponds to the rotor disc loading?

---

- a) Rotor disc / helicopter mass
- b) Rotor thrust / rotor disc
- c) Rotor thrust / rotor disc
- d) Helicopter mass / rotor disc

## 22. In what cases is visibility transmitted in kilometers?

---

- a) Up to 10 km
- b) Greater than 5 km
- c) Greater than 10 km
- d) Up to 5 km

## 23. Which of the following frequencies is designated for VHF voice communication?

---

- a) 120.50 MHz
- b) 115.15 MHz
- c) 117.30 kHz
- d) 108.80 MHz

## 24. The term "tropopause" is defined as...

---

- a) The boundary area between the mesosphere and the stratosphere.
- b) The boundary area between the troposphere and the stratosphere.
- c) The height above which the temperature starts to decrease.
- d) The layer above the troposphere showing an increasing temperature.

## 25. What kind of information should be included in an urgency message?

---

- a) Intended routing, important information for support, intentions of the pilot, departure aerodrome, destination aerodrome, heading and altitude
- b) Nature of problem or observation, important information for support, intentions of the pilot, information about position, heading and altitude
- c) Nature of problem or observation, important information for support, departure aerodrome, information about position, heading and altitude
- d) Intended routing, important information for support, intentions of the pilot, information about position, departure aerodrome, heading and altitude

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

## 26. $V_y$ is the speed...

---

- a) To rotate.
- b) For the best rate of climb.
- c) For the best angle of climb.
- d) Never to be exceeded.

## 27. What is caused by the movement of the cyclic stick?

---

- a) The swash plate is inclined and thus changes the pitch angle of the blades periodically
- b) The lower scissors are twisted and consequently the pitch angle of the rotor blade is changed periodically
- c) The sliding sleeve is axially moved and thus changes the pitch angle of the rotor blades collectively
- d) The trim panels are inclined and consequently a torque on the rotor blade is produced

## 28. An attitude director indicator (ADI) combines the information provided by...

---

- a) The attitude indicator and the relative bearing indicator.
- b) The directional gyro and the rate gyro.
- c) The attitude indicator and the flight director.
- d) The attitude indicator and the radio magnetic indicator.

## 29. The effective angle of attack is the angle between...

---

- a) Chord line and tip path plane.
- b) Effective airflow and chord line.
- c) Tip path plane and rotor blade.
- d) Effective airflow and tip path plane.

## 30. Which are the advantages of sandwich structures?

---

- a) Low weight, high stiffness, high stability, and high strength
- b) Good formability and high temperature durability
- c) High temperature durability and low weight
- d) High strength and good formability

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

**31. In a METAR, "heavy rain" is designated by the identifier...**

---

- a) RA
- b) .+RA.
- c) SHRA.
- d) .+SHRA.

**32. What is indicated by a pattern of longitudinal stripes of uniform dimensions disposed symmetrically about the centerline of a runway?**

---

- a) A ground roll could be started from this position
- b) Do not touch down before them
- c) Do not touch down behind them
- d) At this point the glide path of an ILS hits the runway

**33. Wake turbulence is particularly strong...**

---

- a) When flying at low speeds.
- b) When flying at high altitudes.
- c) When flying at low altitudes.
- d) When flying at high speeds.

**34. What weather conditions may be expected during conditionally unstable conditions?**

---

- a) Layered clouds up to high levels, prolonged rain or snow
- b) Towering cumulus, isolated showers of rain or thunderstorms
- c) Sky clear of clouds, sunshine, low winds
- d) Shallow cumulus clouds with base at medium levels



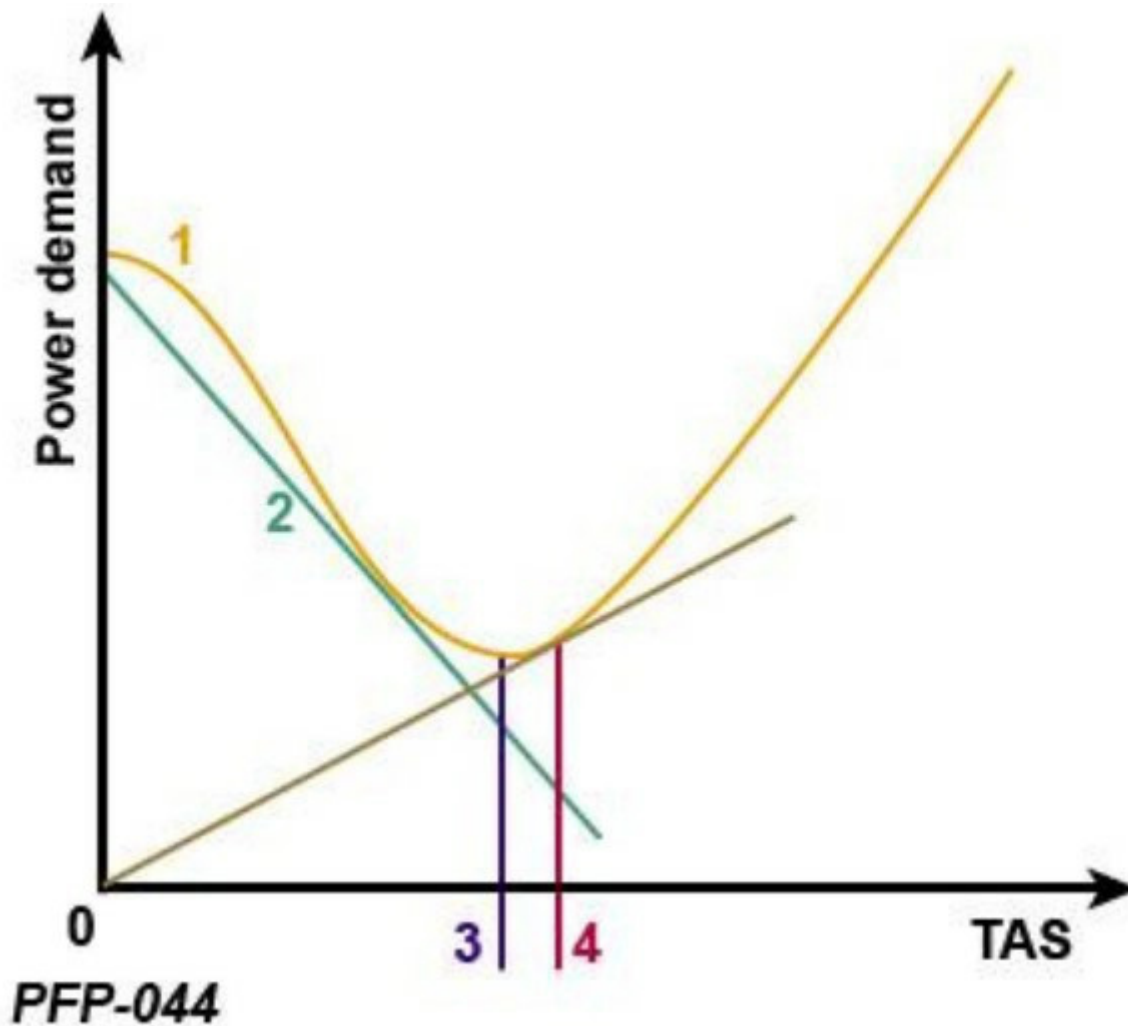
# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

35. Which point indicates the speed for maximum range? See figure (PFP-044) Siehe Anlage 15



- a) 1
- b) 4
- c) 2
- d) 3

36. When transmitter and receiver are moving towards each other...

- a) The perceived frequency equals the transmitted frequency.
- b) The perceived frequency decreases.
- c) The perceived frequency increases.
- d) The frequency varies, but the wavelength remains constant.

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

## 37. What condition has to be met during a Special VFR flight?

---

- a) Visual reference to the terrain
- b) A minimum distance to clouds of 2000 m
- c) At least 500 m ground visibility
- d) Speed not above 115 kt IAS

## 38. A precautionary landing is a landing...

---

- a) Conducted in response to circumstances forcing the aircraft to land.
- b) Conducted with the flaps retracted.
- c) Conducted in an attempt to sustain flight safety.
- d) Conducted without power from the engine.

## 39. What does a cloud coverage of "BKN" mean in a METAR weather report?

---

- a) 3 to 4 eighths
- b) 1 to 2 eighths
- c) 8 eighths
- d) 5 to 7 eighths

## 40. Which abbreviation is used for the term "visual flight rules"?

---

- a) VMC
- b) VFR
- c) VRU
- d) VFS

## 41. What is the minimum flight visibility in airspace "C" for an aircraft operating under VFR at 5000 ft MSL?

---

- a) 5000 m
- b) 8000 m
- c) 3000 m
- d) 1500 m

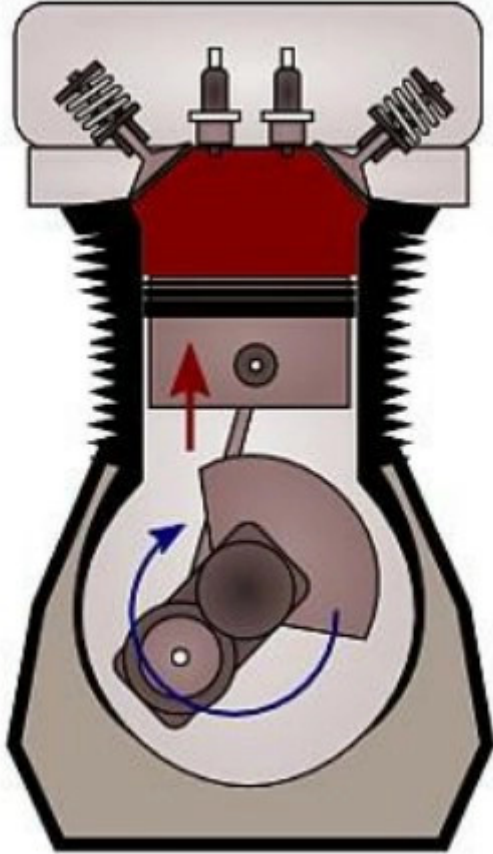
# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

**42. Which part of the cycle of a four-stroke Otto engine can be seen in the attachment? See figure (AGK-008) Siehe Anlage 2**



- a) Second stroke - compression
- b) First stroke - induction
- c) Third stroke - power
- d) Fourth stroke - exhaust

**43. A Pre-Flight Information Bulletin (PIB) is a presentation of current...**

- a) ICAO information of operational significance prepared after the flight.
- b) NOTAM information of operational significance prepared prior to flight.
- c) AIC information of operational significance prepared after the flight.
- d) AIP information of operational significance prepared prior to flight.

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

**44. Air consists of oxygen, nitrogen and other gases. What is the approximate percentage of other gases?**

---

- a) 21 %
- b) 1 %
- c) 0.1 %
- d) 78 %

**45. What action has no effect on the rotor RPM in an autorotation?**

---

- a) Utilisation of friction brake.
- b) Centre of gravity displacement.
- c) Pitch angle change.
- d) Transition into a turning flight.

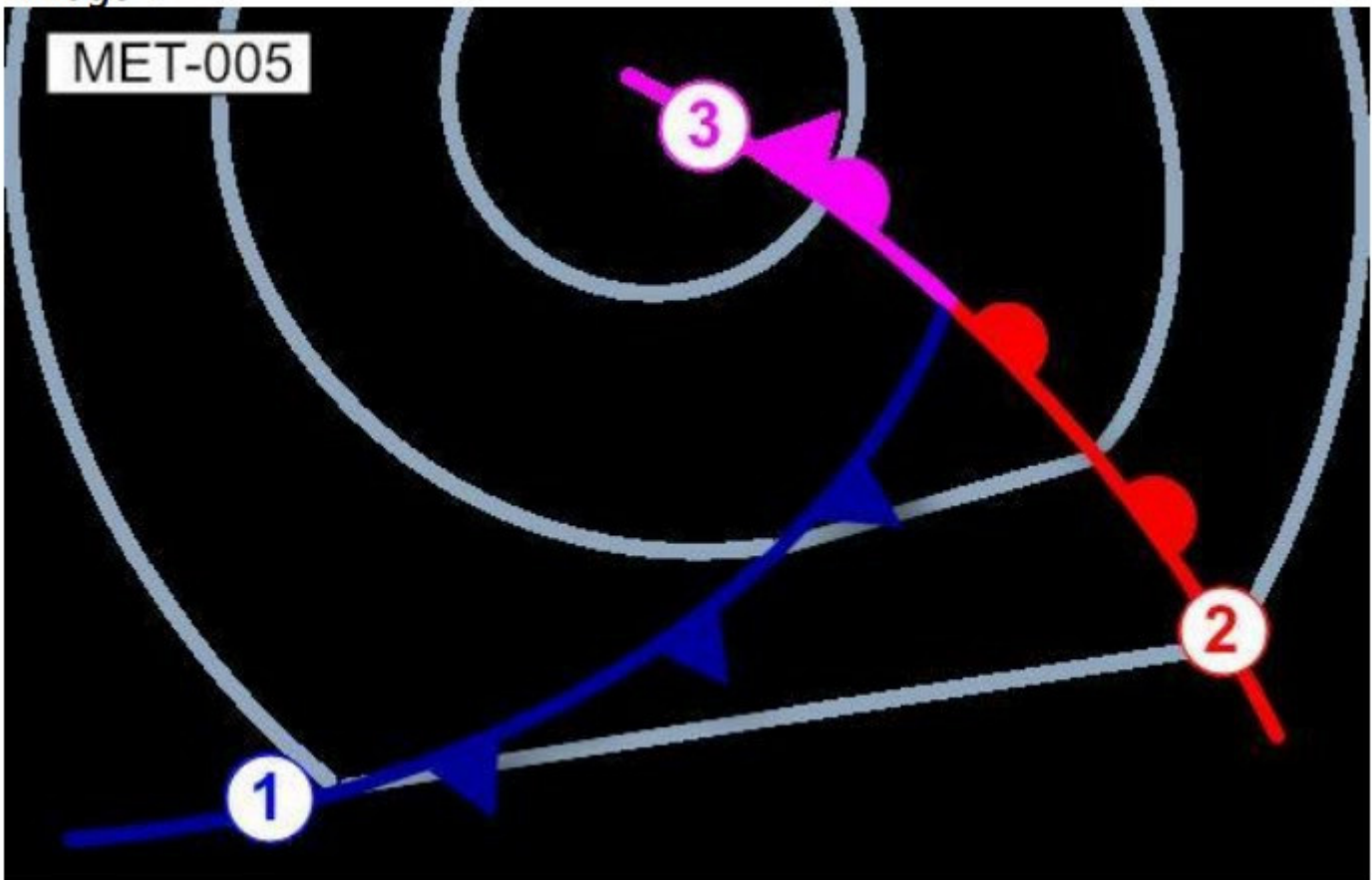
# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

46. The symbol labeled (3) as shown in the picture is a / an... See figure (MET-005) Siehe Anlage 4



- a) Cold front.
- b) Occlusion.
- c) Front aloft.
- d) Warm front.

47. The shoreline effect is greatest with radio wave propagation...

- a) At an acute angle to the coast; aircraft below 6000 ft.
- b) At an acute angle to the coast; aircraft above 6000 ft.
- c) At a right angle to the coast; aircraft above 6000 ft.
- d) At a right angle to the coast; aircraft below 6000 ft.

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

**48. Given: QTE: 203° VAR: 10° E The QDR equals...**

---

- a) 013°.
- b) 193°
- c) 213°.
- d) 023°.

**49. The airframe of an accelerating helicopter continues to bend until the...**

---

- a) Horizontal thrust component equals the drag.
- b) Thrust passes in front of the centre of gravity.
- c) Vertical thrust component equals the drag.
- d) Thrust passes behind the centre of gravity.

**50. Visual illusions are mostly caused by...**

---

- a) Colour blindness.
- b) Binocular vision.
- c) Misinterpretation of the brain.
- d) Rapid eye movements.

**51. How often shall a blind transmission be made?**

---

- a) One time
- b) Three times
- c) Two times
- d) Four times

**52. Weather and operational information about the destination aerodrome can be obtained during the flight by...**

---

- a) VOLMET
- b) SIGMET.
- c) ATIS.
- d) PIREP.

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

53. According to the aeronautical chart, Friesach/Hirt (LOKH) has a 707 m grass runway. Prevailing runway is 17 due to a surface wind of 18010KT. The required landing distance for your aircraft under present conditions is 550 m. Considering the NOTAM below, is it safe to plan LOKH as an alternate aerodrome? See figure (PFP-026) Siehe Anlage 9

B1066/11 NOTAMR B0680/11

Q)

LOVV/QMRCM/IV/NBO/A/000/999/4656N01426E005

E) THRESHOLD RWY17 DISPLACED 207M INWARDS  
DUE TO HIGH TREES 300M N OF RWY 17.

LANDING DISTANCE AVAILABLE (LDA) 500M.

TAKE-OFF RUN AVAILABLE (TORA) RWY 17/35

AND LANDING DISTANCE AVAILABLE (LDA)

RWY 35 707M.

MARKINGS ARE INSTALLED AT BOTH EDGES OF THE  
RUNWAY ACCORDING ZFV.

- a) No.
- b) Yes.
- c) Don't know.
- d) Maybe.

54. During an approach the aeroplane experiences a windshear with a decreasing tailwind. If the pilot does not make any corrections, how do the approach path and the indicated airspeed (IAS) change?

- a) Path is lower, IAS increases
- b) Path is higher, IAS decreases
- c) Path is lower, IAS decreases
- d) Path is higher, IAS increases

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

---

**55. Which instantaneous information can be obtained from ground radar equipment?**

---

- a) Airspeed (TAS) and heading
- b) Direction and airspeed (TAS)
- c) Distance and direction
- d) Airspeed (TAS) and distance

---

**56. Why does a flare during an autorotation generate higher rotor RPM?**

---

- a) The pitch angle increases
- b) The vertical airflow through the rotor disc increases
- c) The tangential force tilts backwards
- d) The ground effect leads to better performance

---

**57. Which of the following factors could cause an erroneous airspeed indication?**

---

- a) The boost pressure line is defective
- b) The aircraft is covered with adhesive foils
- c) A circuit breaker was pulled
- d) The earth wire is still attached

---

**58. Two aircraft of the same type, same grossweight and same configuration fly at different airspeeds. Which aircraft will cause more severe wake turbulence?**

---

- a) The aircraft flying at lower altitude.
- b) The aircraft flying at slower speed.
- c) The aircraft flying at higher altitude.
- d) The aircraft flying at higher speed.

---

**59. A frequency of 119.500 MHz is correctly transmitted as...**

---

- a) One one niner tousand decimal five zero.
- b) One one niner decimal five zero zero.
- c) One one niner decimal five zero.
- d) One one niner decimal five.



# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

## 60. Which actions shall be taken if the rotor RPM indicator fails during cruise flight?

---

- a) Try to get back an indication by opening and closing the throttle
- b) Increase engine power and continue the flight to the nearest airfield
- c) Continue the flight as long as the engine RPM indicator works
- d) Perform an emergency landing on suitable terrain

## 61. Which statement is correct with regard to the short-term memory?

---

- a) It can store 3 ( $\pm 1$ ) items for 5 to 10 seconds
- b) It can store 5 ( $\pm 2$ ) items for 1 to 2 minutes
- c) It can store 10 ( $\pm 5$ ) items for 30 to 60 seconds
- d) It can store 7 ( $\pm 2$ ) items for 10 to 20 seconds

## 62. Which is the colour of runway end lights?

---

- a) White
- b) Red
- c) Blue
- d) Green

## 63. Which gas is most dangerous during an engine fire?

---

- a) Nitrogen
- b) Carbon monoxide
- c) Carbon dioxide
- d) Oxygen

## 64. Which of the following symptoms may indicate hypoxia?

---

- a) Blue discolouration of lips and fingernails
- b) Muscle cramps in the upper body area
- c) Blue marks all over the body
- d) Joint pain in knees and feet

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

## 65. The altimeter can be checked on the ground by setting...

---

- a) QNE and checking that the indication shows zero on the ground.
- b) QFF and comparing the indication with the airfield elevation.
- c) QNH and comparing the indication with the airfield elevation.
- d) QFE and comparing the indication with the airfield elevation.

## 66. What is meant by "isothermal layer"?

---

- a) An atmospheric layer where temperature increases with increasing height
- b) A boundary area between two other layers within the atmosphere
- c) An atmospheric layer with constant temperature with increasing height
- d) An atmospheric layer where temperature decreases with increasing height

## 67. Given: TC: 183°; WCA: +011°; MH: 198°; CH: 200° What are the VAR and the DEV? (2,00 P.)

---

- a) VAR: 004° E. DEV: -002°
- b) VAR: 004° W. DEV: -002°.
- c) VAR: 004° E. DEV: +002°
- d) VAR: 004° W. DEV: +002°.

## 68. Which energies serve to maintain the rotor rpm in an autorotation?

---

- a) Potential or kinetic energy
- b) Mechanical or chemical energy
- c) Rotational and linear energy
- d) Frictional and flow energy

## 69. What is the meaning of the phrase "Correction"?

---

- a) I understand your message and will comply with it
- b) Permission for proposed action is granted
- c) An error has been made in this transmission. The correct version is...
- d) I have received all of your last transmission

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

## 70. When do you expect wind shear?

---

- a) When passing a warm front
- b) During a summer day with calm winds
- c) During an inversion
- d) In calm wind in cold weather

# Exam simulation

PPL(H) - Private Pilot License - Human Performance and limitations



QuizVds.it

## Response Scheme

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

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

# Exam simulation

PPL(H) - Private 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: _____		