

Simulazione di Esame

Human factor and limitations - PPL(A) English - Private Pilot License (Aircraft), 70 domande in 70 minuti!



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NOME ALLIEVO:

DATA & ORA:

01. What is the percentage of nitrogen in the atmosphere?

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

02. The right aileron deflects upwards, the left downwards. How does the aircraft react?

- a) Rolling to the left, no yawing
- b) Rolling to the right, yawing to the right
- c) Rolling to the right, yawing to the left
- d) Rolling to the left, yawing to the right

03. The angle (alpha) shown in the figure is referred to as... See figure (PFA-003) DoF: direction of airflow (1,00 P.) Siehe Anlage 3

- a) Lift angle.
- b) Angle of incidence
- c) Angle of inclination
- d) Angle of attack.

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

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

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05. Which of the following qualities are influenced by stress? 1. Attention 2. Concentration 3. Responsiveness 4. Memory

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

06. The total weight of an aeroplane is acting vertically through the...

- a) Stagnation point.
- b) Neutral point.
- c) Center of pressure.
- d) Center of gravity.

07. From which altitude on does the body usually react to the decreasing atmospheric pressure?

- a) 2000 feet
- b) 7000 feet
- c) 10000 feet
- d) 12000 feet

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

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

09. Which answer states a risk factor for diabetes?

- a) Overweight
- b) Smoking
- c) Sleep deficiency
- d) Alcohol consumption

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10. What has to be considered with regard to the center of gravity position?

- a) The center of gravity's position can only be determined during flight.
- b) Only correct loading can assure a correct and safe center of gravity position
- c) By moving the elevator trim tab, the center of gravity can be shifted into a correct position
- d) By moving the aileron trim tab, the center of gravity can be shifted into a correct position.

11. A wind shear is...

- a) A slow increase of the wind speed in altitudes above 13000 ft.
- b) A wind speed change of more than 15 kt.
- c) A vertical or horizontal change of wind speed and wind direction
- d) A meteorological downslope wind phenomenon in the alps

12. Rotation around the vertical axis is called...

- a) Rolling
- b) Pitching
- c) Yawing
- d) Slipping

13. How are rhumb lines and great circles depicted on a direct Mercator chart?

- a) Rhumb lines: curved lines Great circles: straight lines
- b) Rhumb lines: curved lines Great circles: curved lines
- c) Rhumb lines: straight lines Great circles: curved lines
- d) Rhumb lines: straight lines Great circles: straight lines

14. Which option states a benefit of wing washout?

- a) Structurally the wing is made more rigid against rotation
- b) With the washout the form drag reduces at high speeds
- c) Greater hardness because the wing can withstand more torsion forces
- d) At high angles of attack the effectiveness of the aileron is retained as long as possible

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15. For the purpose of a flight preparation the pilot calculates a total take-off mass of 775 kg and a total moment of 700 mmkg. Which cross marks the center of gravity (CG)? See annex (PFP-005) (1,00 P.) Siehe Anlage 5

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

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

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

17. In a co-ordinated turn, how is the relation between the load factor (n) and the stall speed (Vs)?

- a) N is smaller than 1, Vs is greater than in straight and level flight
- b) N is greater than 1, Vs is greater than in straight and level flight.
- c) N is smaller than 1, Vs is smaller than in straight and level flight.
- d) N is greater than 1, Vs is smaller than in straight and level flight

18. The static pressure of gases work...

- a) Only vertical to the flow direction.
- b) Only in the direction of the total pressure.
- c) In all directions.
- d) Only in flow direction

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

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

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20. Full deflection of the course deviation indicator (CDI) means that the aircraft is located at least...

- a) 2 NM beside the selected course.
- b) 10 NM beside the selected course.
- c) 2° beside the selected course.
- d) 10° beside the selected course.

21. Given a visibility of 12 km, what is the correct way to transmit this visibility?

- a) One-two kilometers
- b) Twelve kilometers
- c) One-zero kilometers or more
- d) One-zero kilometers.

22. The airspeed indicator is unservicable. The airplane may only be operated...

- a) When the airspeed indicator is fully functional again.
- b) When a GPS with speed indication is used during flight.
- c) If no maintenance organisation is around
- d) If only airfield patterns are flown.

23. Which altitude is displayed on the altimeter when set to a specific QFE?

- a) Altitude in relation to the 1013.25 hPa datum
- b) Altitude in relation to the air pressure at the reference airfield
- c) Altitude in relation to the highest elevation within 10 km
- d) Altitude in relation to mean sea level

24. Which gas is most dangerous during an engine fire?

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

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25. What does the term "Red-out" mean?

- a) "Red vision" during negative g-loads
- b) Rash during decompression sickness
- c) Anaemia caused by an injury
- d) Falsified colour perception during sunrise and sunset

26. Carbon monoxide poisoning can be caused by...

- a) Little sleep.
- b) Alcohol
- c) Smoking.
- d) Unhealthy food.

27. Given the following conditions, the take-off distance equals... Outside air temperature: -20° C Pressure Altitude: 5000 ft Aeroplane mass: 750 kg Headwind: 10 kt

- a) 450 m.
- b) 380 m
- c) 410 m
- d) 310 m.

28. Which factor can be changed by deploying flaps for landing?

- a) The position of the center of gravity
- b) The effectiveness of the ailerons
- c) The twist effect of the engine
- d) The trim condition

29. After a precautionary landing the brakes and wheels are very hot. In which way should the pilot approach them?

- a) From the right or left side
- b) At an angle of 45°
- c) From the front or back side
- d) From the front, right or left side

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30. How does wind affect the take-off performance?

- a) Tailwind aids the aircraft in overcoming the initial drag at the commencement of the take-off roll. The take-off distance will decrease
- b) Tailwind reduces the relative wind on the airfoil. The take-off distance will increase
- c) Headwind causes an increased airflow around the wing. The take-off distance will increase
- d) Headwind imposes an increased drag on the aircraft. The take-off distance will increase

31. What is the principle of a Fowler flap?

- a) A profile-like flap is extended from the trailing edge of the wing
- b) A flap from the rear bottom side of the wing is folded down
- c) At high angles of attack a part of the leading edge lifts
- d) At high angles of attack a part of the leading edge lifts

32. Which area is suitable for an off-field landing?

- a) Harvested cornfield
- b) Glade with long dry grass
- c) Plowed field
- d) Sports area in a village

33. What is the best combination of traits with respect to the individual attitude and behaviour for a pilot?

- a) Introverted - unstable
- b) Introverted - stable
- c) Extroverted - unstable
- d) Extroverted - stable

34. Pressure drag, interference drag and friction drag belong to the group of the...

- a) Induced drag
- b) Parasite drag.
- c) Main resistance
- d) Total drag

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35. What values are usually marked with a red line on instrument displays?

- a) Operational limits
- b) Caution areas
- c) Recommended areas
- d) Operational areas

36. What should be observed when taxiing behind a commercial airliner?

- a) To avoid wake turbulence, a minimum distance of 700 m should be maintained
- b) To avoid the jet blast, a minimum distance of 600 m should be maintained
- c) To avoid wake turbulence, a minimum distance of 300 m should be maintained
- d) To avoid the jet blast, a minimum distance of 200 m should be maintained

37. Which of the following options are possible SSR-Transponder modes?

- a) A, C, S
- b) A, C, R
- c) B, C, V
- d) B, R, S

38. The dry adiabatic lapse rate has a value of...

- a) 1,0° C / 100 m.
- b) 2° / 1000 ft.
- c) 0,6° C / 100 m.
- d) 0,65° C / 100 m.

39. The pressure at MSL in ISA conditions is...

- a) 113.25 hPa.
- b) 15 hPa.
- c) 1013.25 hPa
- d) 1123 hPa.

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40. Which of the following options states the working principle of a vertical speed indicator?

- a) Measuring the present static air pressure and comparing it to the static air pressure inside a reservoir
- b) Total air pressure is measured and compared to static pressure
- c) Measuring the vertical acceleration through the displacement of a gimbal-mounted mass
- d) Static air pressure is measured and compared against a vacuum

41. A light aircraft intends to land behind a commercial airliner belonging to wake turbulence category "medium" or "heavy" on a long runway. How can the wake turbulence of the commercial aircraft be avoided?

- a) By making a steep approach and a long landing, touching down behind the touchdown point of the airliner's nose gear
- b) By making a steep approach and a very short landing. The light aircraft should be able to stop before reaching the airliner's touchdown point
- c) By making a shallow approach and a long landing, touching down behind the touchdown point of the airliner's nose gear
- d) By making a shallow approach and a very short landing. The light aircraft should be able to stop before reaching the airliner's touchdown point

42. An inversion is a layer ...

- a) With increasing pressure with increasing height.
- b) With decreasing temperature with increasing height.
- c) With constant temperature with increasing height.
- d) With increasing temperature with increasing height.

43. Wake turbulence is particularly strong...

- a) At a high aeroplane weight.
- b) When flying with high thrust.
- c) When flying with low thrust.
- d) At a low aeroplane weight.

44. What does the dynamic pressure depend directly on?

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

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45. Cold air inflow in high tropospheric layers may result in...

- a) Showers and thunderstorms.
- b) Stabilisation and calm weather
- c) Frontal weather.
- d) Calm weather and cloud dissipation.

46. It is possible that the surface wind speed at an airport is reduced due to friction. When a surface area with a minor tailwind condition is left during the initial climb, the pilot might expect...

- a) An increase in airspeed and rate of climb due to decreasing tailwind
- b) A decrease in airspeed and climb performance due to decreasing tailwind
- c) An increase in airspeed and rate of climb due to increasing tailwind.
- d) A decrease in airspeed and rate of climb due to increasing tailwind.

47. A pilot wants to take off on runway 36, the reported wind is 240 degrees 12 knots. What are the wind components acting on the aircraft on take-off and landing?

- a) Crosswind from the right 10.4 kt. Tailwind 6 kt.
- b) Crosswind from the right 6 kt. Headwind 10.4 kt.
- c) Crosswind from the left 10.4 kt. Tailwind 6 kt.
- d) Crosswind from the left 6 kt. Tailwind 10.4 kt.

48. What is the meaning of "risky shift"?

- a) Crossing of rudder and ailerons on short final
- b) The tendency to accept higher risks in groups
- c) Spontaneous change of landing direction when the runway has an upslope
- d) Seat adjustment in flight

49. Assume calm wind and an aircraft descending from 9000 ft to 1500 ft. The rate of descent (ROD) equals 1200 ft/min. The elapsed time will be...

- a) 6 min.
- b) 15 min
- c) 12 min
- d) 8 min.

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50. The angle indicated by arrow number 1 shows the propeller's... See figure (AGK-011) D: Direction of air flow C: Chord line R: Direction of rotation (1,00 P.) Siehe Anlage 7

- a) Angle of incidence.
- b) Angle of attack.
- c) Geometric wing twist
- d) Aerodynamic wing twist

51. Which statement concerning the angle of attack is correct?

- a) The angle of attack cannot be negative
- b) Increasing the angle of attack results in decreasing lift
- c) The angle of attack is constant throughout the flight
- d) A too large angle of attack may result in a loss of lift

52. Rudder deflections result in a turn of the aeroplane around the...

- a) Rudder axis
- b) Lateral axis
- c) Vertical axis.
- d) Longitudinal axis.

53. What does the abbreviaton "FIR" stand for?

- a) Flight integrity receiver
- b) Flow information radar
- c) Flight information region
- d) Flow integrity required

54. Deflecting the rudder to the left causes...

- a) Pitching of the aircraft to the right.
- b) Yawing of the aircraft to the right
- c) Yawing of the aircraft to the left.
- d) Pitching of the aircraft to the left

Simulazione di Esame

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55. What extinguishing agent is the least suitable for an aircraft fire?

- a) Powder
- b) Halon
- c) Water
- d) Foam

56. Given: TC: 183°; WCA: +011°; MH: 198°; CH: 200° What are the VAR and the DEV?

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

57. When trimming an aircraft nose up, in which direction does the trim tab move?

- a) Depends on CG position
- b) It moves up
- c) In direction of rudder deflection
- d) It moves down

58. The required data for a mass and balance calculation including masses and balance arms can be found in the...

- a) Performance section of the pilot's operating handbook of this particular aircraft
- b) Mass and balance section of the pilot's operating handbook of this particular aircraft
- c) Documentation of the annual inspection.
- d) Certificate of airworthiness.

59. An altitude of 4500 ft is transmitted as...

- a) Four thousand five hundred.
- b) Four five thousand.
- c) Four thousand five zero zero.
- d) Four five zero zero.

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60. Given the following information, what range can be achieved? Outside air temperature: 22° C Pressure altitude: 2000 ft Power: 55 % See annex (PFP-013) (1,00 P.) Siehe Anlage 12

- a) 550 NM
- b) 480 NM
- c) 450 NM
- d) 500 NM

61. Air traffic control service is conducted by which services?

- a) TWR (aerodrome control service) APP (approach control service) ACC (area control service)
- b) APP (approach control service) ACC (area control service) FIS (flight information service)
- c) ALR (alerting service) SAR (search and rescue service) TWR (aerodrome control service)
- d) FIS (flight information service) AIS (aeronautical information service) AFS (aeronautical fixed telecommunication service)

62. Which are the different parts of the Aeronautical Information Publication (AIP)?

- a) GEN MET RAC
- b) GEN COM MET
- c) GEN AGA COM
- d) GEN ENR AD

63. Which dangerous attitudes are often combined?

- a) Macho and invulnerability
- b) Impulsivity and carefulness
- c) Invulnerability and self-abandonment
- d) Self-abandonment and macho

64. Mountain side updrafts can be intensified by ...

- a) Solar irradiation on the windward side
- b) Solar irradiation on the lee side
- c) By warming of upper atmospheric layers
- d) Thermal radiation of the windward side during the night

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

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

66. Which altitude marks the lower limit where the the body is unable to completely compensate the effects of the low atmospheric pressure?

- a) 12000 feet
- b) 22000 feet
- c) 5000 feet
- d) 7000 feet

67. QFE is the...

- a) Barometric pressure at a reference datum, typically the runway threshold of an airfield.
- b) Barometric pressure adjusted to sea level, using the international standard atmosphere (ISA).
- c) Magnetic bearing to a station
- d) Altitude above the reference pressure level 1013.25 hPa

68. Which answer is correct with regard to separation in airspace "E"?

- a) IFR traffic is separated only from VFR traffic
- b) VFR traffic is separated from VFR and IFR traffic
- c) VFR traffic is separated only from IFR traffic
- d) VFR traffic is not separated from any other traffic

69. The term "center of gravity" is defined as...

- a) The heaviest point on an aeroplane.
- b) Half the distance between the neutral point and the datum line.
- c) Another designation for the neutral point
- d) The point at which the total mass of the aeroplane is considered to act.

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70. Which of the following options is likely to produce large induced drag?

- a) Large aspect ratio
- b) Tapered wings
- c) Small aspect ratio
- d) Low lift coefficients

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Schema Risposte

Confronta le risposte fornite con il seguente schema e segna il tuo punteggio!

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