

Simulazione di Esame

Principle of Flight - PPL(A) English - Private Pilot License (Aircraft), 70 domande in 70 minuti!



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NOME ALLIEVO:

DATA & ORA:

01. Which statement about the airflow around an aerofoil is correct if the angle of attack increases?

- a) The stagnation point moves down
- b) The center of pressure moves down
- c) The center of pressure moves up
- d) The stagnation point moves up

02. 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°

03. 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) (1,00 P.) Siehe Anlage 17

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

04. What is the difference between spin and spiral dive?

- a) Spin: stall at outer wing, speed constant; Spiral dive: airflow at both wings, speed increasing rapidly
- b) Spin: stall at inner wing, speed constant; Spiral dive: airflow at both wings, speed increasing rapidly
- c) Spin: stall at outer wing, speed increasing rapidly; Spiral dive: airflow at both wings, speed constant
- d) Spin: stall at inner wing, speed increasing rapidly; Spiral dive: airflow at both wings, speed constant

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05. With regard to flaps, which of the following options provides a lift-increasing effect?

- a) With regard to flaps, which of the following options provides a lift-increasing effect?
- b) Increasing the aerofoil camber
- c) Decreasing the form drag
- d) Lowering the induced drag

06. What describes "wing loading"?

- a) Drag per wing area
- b) Drag per weight
- c) Wing area per weight
- d) Weight per wing area

07. Anemic hypoxia can be caused by...

- a) Carbon monoxide poisoning.
- b) Low pressure
- c) High altitudes.
- d) Alcohol

08. A deceleration during a straight horizontal flight can lead to the illusion of...

- a) A climb.
- b) A descent.
- c) A bank.
- d) An inverted flight.

09. 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

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10. With Central European Summer Time (CEST) given as UTC+2, what UTC time corresponds to 1600 CEST?

- a) 1600 UTC.
- b) 1500 UTC.
- c) 1700 UTC.
- d) 1400 UTC.

11. What does the octane rating or fuel grade describe?

- a) Anti-knock rating
- b) Flame front speed
- c) Ignition timing
- d) Combustion temperature

12. The elevator deflection during take-off rotation...

- a) Is increased for a front centre of gravity.
- b) Is increased for a rear centre of gravity
- c) Is increased at high speeds.
- d) Is independent of the speed.

13. The thickness of the wing is defined as the distance between the lower and the upper side of the wing at the...

- a) Most inner part of the wing.
- b) Thinnest part of the wing.
- c) Thickest part of the wing.
- d) Most outer part of the wing.

14. During an unaccelerated flight...

- a) Drag equals lift and thrust equals gravity.
- b) Thrust equals the sum of drag and gravity.
- c) Thrust equals lift and drag equals gravity.
- d) Thrust equals drag and lift equals gravity.

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15. The pressure which is measured at a ground station and reduced to mean sea level (MSL) by means of the actual atmospheric conditions is called...

- a) QNH
- b) QNE
- c) QFE
- d) QFF

16. The term ,magnetic course' (MC) is defined as...

- a) The angle between magnetic north and the course line.
- b) The angle between true north and the course line.
- c) The direction from an arbitrary point on Earth to the geographic North Pole.
- d) The direction from an arbitrary point on Earth to the magnetic north pole.

17. What does "WATER PATCHES" mean regarding the reported runway condition?

- a) A large part of the surface is flooded
- b) Patches of standing water are visible
- c) Wet surface, but no significant patches are visible
- d) The runway is clear of water, ice, and snow

18. (For this question, please use annex PFP-063) According ICAO, what symbol indicates a general spot elevation? (2,00 P.) Siehe Anlage 24

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

19. Which of the following is NOT a risk factor for hypoxia?

- a) Smoking
- b) Menstruation
- c) Blood donation
- d) Diving

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20. In straight and level flight with constant performance of the engine, the angle of attack at the wing is...

- a) Greater than in a climb.
- b) Greater than at take-off
- c) Smaller than in a descent
- d) Smaller than in a climb

21. An aircraft is flying at a pressure altitude of 7000 feet with an outside air temperature (OAT) of +11°C. The QNH altitude is 6500 ft. The true altitude equals...

- a) 6500 ft.
- b) 7000 ft.
- c) 6750 ft.
- d) 6250 ft.

22. 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.

23. How should departures near villages be carried out?

- a) Slow with a low propeller rotation speed
- b) Low and fast between the villages
- c) Climb and changes in direction should be done as slow as possible
- d) Villages should be circumnavigated and crossed in a sufficient altitude

24. Under which conditions "back side weather" ("Rückseitenwetter") can be expected?

- a) Before passing of an occlusion
- b) During Foehn at the lee side
- c) After passing of a warm front
- d) After passing of a cold front

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25. How are two parallel runways designated?

- a) The left runway gets the suffix "L", the right runway "R"
- b) The left runway gets the suffix "L", the right runway remains unchanged
- c) The left runway gets the suffix "-1", the right runway "-2"
- d) The left runway remains unchanged, the right runway designator is increased by 1

26. Which part of the cycle of a four-stroke Otto engine can be seen in the attachment? See figure (AGK-008) (1,00 P.) Siehe Anlage 6

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

27. What is the purpose of "interception lines" in visual navigation?

- a) To visualize the range limitation from the departure aerodrome
- b) They help to continue the flight when flight visibility drops below VFR minima
- c) To mark the next available en-route airport during the flight
- d) They are used as easily recognizable guidance upon a possible loss of orientation

28. During an approach the aeroplane experiences a windshear with a decreasing 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

29. Clouds are basically distinguished by what types?

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

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

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

31. What is the required distance to climb to flight level (FL) 75 after a departure from an airfield which is located at a pressure altitude of 3000 ft with an initial mass of 3000 lbs? OAT at airfield: 25° C OAT in FL 75: 0° C See annex (PFP-023) (1,00 P.) Siehe Anlage 14

- a) 10 NM
- b) 6 NM
- c) 4 NM
- d) 7 NM

32. The term "static pressure" is defined as pressure...

- a) Inside the airplane cabin.
- b) Of undisturbed airflow.
- c) Resulting from orderly flow of air particles.
- d) Sensed by the pitot tube.

33. 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

34. What needs to be considered if permissible limitations were exceeded?

- a) The helicopter must be inspected by the pilot in command and if no defect is found, no appropriate entry in the aircraft technical log is necessary
- b) The helicopter must be inspected by at least two pilots licensed on the type, one of whom must be the pilot in command
- c) The helicopter must be inspected by a qualified engineer before the next flight
- d) The helicopter must be subjected to a duplicate inspected by two engineers

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35. Given: QDM: 138° VAR: 10° E The QUJ equals...

- a) 168°
- b) 318°.
- c) 328°.
- d) 148°.

36. Number 3 in the drawing corresponds to the... See figure (PFA-010) (1,00 P.) Siehe Anlage 1

- a) Chord
- b) Thickness
- c) Camber line
- d) Chord line.

37. The transponder code in case of hi-jacking is...

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

38. What is the true airspeed (TAS) [kt] and fuel consumption [l/h] for cruise flight with 70 % power in flight level 60 under the following conditions? Temperature: ISA - 20° C QNH: 980 hPa See annex (PFP-012) (2,00 P.) Siehe Anlage 10

- a) 110 kt. 23.9 l/h.
- b) 100 kt. 19.3 l/h.
- c) 95 kt. 19.6 l/h.
- d) 105 kt. 21.5 l/h

39. The term "balance arm" in the context of a mass and balance calculation defines the...

- a) Distance from the datum to the center of gravity of a mass.
- b) Distance of a mass from the center of gravity.
- c) Point on the longitudinal axis of an aeroplane or its extension from which the centers of gravity of all masses are referenced.
- d) Point through which the force of gravity is said to act on a mass.

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40. What does the abbreviation "HX" stand for?

- a) No specific opening hours
- b) Sunrise to sunset
- c) Sunset to sunrise
- d) 24 h service

41. Which method is appropriate to approach an unprepared landing field?

- a) Flat direct approach to ensure visual ground contact
- b) Steep approach to keep the noise level low
- c) Fast approach, performance check, and landing within a quick stop
- d) Terrain investigation to determine approach points and landing

42. What situation is called "over-development" in a weather report?

- a) Vertical development of Cumulus clouds to rain showers
- b) Widespreading of Cumulus clouds below an inversion layer
- c) Change from blue thermals to cloudy thermals during the afternoon
- d) Development of a thermal low to a storm depression

43. What is the subject of ICAO Annex 1?

- a) Air traffic services
- b) Flight crew licensing
- c) Rules of the air
- d) Operation of aircraft

44. Wet snow on a runway can lead to...

- a) An increase in lift.
- b) A decrease in lift.
- c) Reduced rolling resistance during take-off.
- d) Increased rolling resistance during take-off.

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45. What is the function of the static rudder balance?

- a) To trim the controls almost without any force
- b) To increase the control stick forces
- c) To limit the control stick forces
- d) To prevent control surface flutter

46. What does a readability of 3 indicate?

- a) The transmission is readable now and then
- b) The transmission is perfectly readable
- c) The transmission is readable but with difficulty
- d) The transmission is unreadable

47. What is checked by the marking in the attachment? See figure (AGK-006) (1,00 P.) Siehe Anlage 4

- a) The tread wear of the tire
- b) The operating pressure of the carcass
- c) The correct position of the tire relative to the rim
- d) The correct position of the outer isolation layers

48. What is the function of the blood platelets (thrombocytes)?

- a) Immune defense
- b) Blood coagulation
- c) Blood sugar regulation
- d) Oxygen transport

49. Given the following data for a VFR flight: Take-off fuel: 180 kg including reserve fuel, which is 30% of take off fuel. After half of the distance the remaining fuel is 100 kg. Assume that cruise conditions will remain unchanged. Determine the remaining fuel at the destination:

- a) 80 kg
- b) 40 kg
- c) 10 kg
- d) 20 kg

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50. Which of the following is responsible for the blood coagulation?

- a) Red blood cells (erythrocytes)
- b) Capillaries of the arteries
- c) White blood cells (leucocytes)
- d) Blood plates (thrombocytes)

51. Which information from a ground station does not require readback?

- a) Runway in use
- b) Wind
- c) SSR-Code
- d) Altitude

52. What is the meaning of the red range on the airspeed indicator?

- a) Speed which must not be exceeded within bumpy air
- b) Speed which must not be exceeded with flaps extended
- c) Speed which must not be exceeded regardless of circumstances
- d) Speed which must not be exceeded in turns with more than 45° bank

53. An emergency landing is a landing...

- a) Conducted without power from the engine.
- b) Conducted in an attempt to keep up safety regarding an aircraft and its occupants.
- c) Conducted with the flaps retracted.
- d) Conducted in response to circumstances forcing the aircraft to land

54. What conditions are favourable for the formation of thunderstorms?

- a) Warm humid air, conditionally unstable environmental lapse rate
- b) Calm winds and cold air, overcast cloud cover with St or As
- c) Clear night over land, cold air and patches of fog
- d) Warm and dry air, strong inversion layer

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55. What has to be considered when taking off in a ground inversion?

- a) Climb should be performed with the lowest possible speed and maximum power
- b) Due to low temperatures close to the ground, icing has to be expected
- c) During climb, a sudden decrease in speed and climb performance has to be expected
- d) During the climb, a sudden increase in speed and climb performance has to be expected

56. The primer is...

- a) An auxiliary pump in the fuel system to facilitate engine starting
- b) A mechanical switch in the cockpit to engage the turbocharger.
- c) A valve in the fuel control system for automatic mixture regulation.
- d) A nozzle in the Venturi tube of a carburettor for atomising the fuel

57. What is the function of the white blood cells (leucocytes)?

- a) Oxygen transport
- b) Blood coagulation
- c) Blood sugar regulation
- d) Immune defense

58. What process results in the formation of "orographic fog" ("hill fog")?

- a) Prolonged radiation during nights clear of clouds
- b) Warm, moist air is moved across a hill or a mountain range
- c) Cold, moist air mixes with warm, moist air
- d) Evaporation from warm, moist ground area into very cold air

59. In what different ways can a risk be handled appropriately?

- a) Extrude, avoid, palliate, transfer
- b) Ignore, accept, transfer, extrude
- c) Avoid, reduce, transfer, accept
- d) Avoid, ignore, palliate, reduce

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60. How does inflowing cold air affect the shape and vertical distance between pressure layers?

- a) Increasing vertical distance, raise in height (high pressure)
- b) Decreasing vertical distance, raise in height (high pressure)
- c) Decrease in vertical distance, lowering in height (low pressure)
- d) Increase in vertical distance, lowering in height (low pressure)

61. 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

62. Which of the following states the working principle of an airspeed indicator?

- a) Total air pressure is measured and compared against static air pressure.
- b) Total air pressure is measured by the static ports and converted into a speed indication by the airspeed indicator
- c) Dynamic air pressure is measured by the Pitot tube and converted into a speed indication by the airspeed indicator
- d) Static air pressure is measured and compared against a vacuum

63. In which way should a pilot confirm received light signals in flight?

- a) Apply some changes of RPM
- b) Apply some changes of the rudder
- c) Rock the wings (in the daytime)
- d) Apply some fast pitch changes

64. Which of the following conditions are most favourable for ice accretion?

- a) Temperatures between 0° C and -12° C, presence of supercooled water droplets (clouds)
- b) Temperatures below 0° C, strong wind, sky clear of clouds
- c) Temperatures between +10° C and -30° C, presence of hail (clouds)
- d) Temperatures between -20° C and -40° C, presence of ice crystals (Ci clouds)

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65. In which situation is it NOT possible to achieve a pressure compensation between the middle ear and the environment?

- a) During a light and slow climb
- b) All windows are completely closed
- c) Breathing takes place using the mouth only
- d) The eustachien tube is blocked

66. What is the correct way of using the aircraft call sign at first contact?

- a) Using the first two characters only
- b) Using the last two characters only
- c) Using the first three characters only
- d) Using all characters

67. What mass equals 102 litres of Avgas 100LL?

- a) 142 lbs
- b) 74 lbs
- c) 142 kg
- d) 74 kg

68. What is the call sign of the aerodrome control?

- a) Tower
- b) Airfield
- c) Ground
- d) Control

69. 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

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70. Which of the following options does NOT stimulate motion sickness (disorientation)?

- a) Head movements during turns
- b) Flying under the influence of alcohol
- c) Non-accelerated straight and level flight
- d) Turbulence in level flight

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Schema Risposte

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

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