

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

STUDENT NAME:

DATE AND TIME:

01. Below maximum differential pressure of a gas balloon, temperature increase of the carrying gas by 1K results in:

- a) Volume decrease by 0.4%
- b) Volume increase by 0.4%
- c) Volume increase by 4%
- d) Volume decrease by 4%

02. How can the vents be checked before take-off with a gas balloon?

- a) Connecting the filling nozzle with the static line loop
- b) Strongly shaking the vent rope
- c) Perform a valve slide
- d) Check if the ropes are clear and working

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

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

04. Where has the ballast aboard a gas balloon to be stored during cruise?

- a) Inside the basket
- b) Below the net ending ropes
- c) At the outside wall of the basket
- d) Inside the tow shield

05. What is an indication for a macho attitude?

- a) Quick resignation in complex and critical situations
- b) Comprehensive risk assessment when faced with unfamiliar situations
- c) Careful workaround procedure
- d) Risky flight maneuvers to impress spectators on ground

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

06. What is the correct way of acknowledging the instruction "DZF after lift-off climb straight ahead until 2500 feet before turning right heading 220 degrees, wind 090 degrees, 5 knots, runway 12, cleared for take-off"?

- a) DZF after lift-off climb straight ahead 2500 feet, then turn right heading 220, runway 12, cleared for take-off
- b) DZF after lift-off climb straight ahead 2500 feet, then turn right heading 220, 090 degrees, 5 knots, cleared for take-off
- c) DZF after lift-off climb straight ahead 2500 feet, wilco, heading 220 degrees, 090 degrees, 5 knots, cleared for take-off
- d) DZF after lift-off climb straight ahead 2500 feet, then turn right heading 220, 090 degrees, 5 knots

07. Which distances to clouds have to be maintained during a VFR flight in airspaces C, D and E?

- a) 1000 m horizontally, 300 m vertically
- b) 1000 m horizontally, 1500 ft vertically
- c) 1500 m horizontally, 1000 m vertically
- d) 1500 m horizontally, 1000 ft vertically

08. Which conditions are likely for the formation of advection fog?

- a) Cold, humid air moves over a warm ocean
- b) Humidity evaporates from warm, humid ground into cold air
- c) Warm, humid air cools during a cloudy night
- d) Warm, humid air moves over a cold surface

09. In what case is the pilot allowed to abbreviate the call sign of his aircraft?

- a) After the ground station has used the abbreviation
- b) Within controlled airspace
- c) If there is little traffic in the traffic circuit
- d) After passing the first reporting point

10. A wind shear is...

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

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

11. What has to be expected when diving into an inversion layer from above?

- a) Rate of descent increases
- b) Rate of descent decreases
- c) Sudden drop onto the ground
- d) Uncontrollable oscillation of the basket

12. Which instrument can be affected by the hysteresis error?

- a) Tachometer
- b) Altimeter
- c) Vertical speed indicator
- d) Direct reading compass

13. The ongoing process to monitor the current flight situation is called...

- a) Anticipatory check procedure
- b) Situational thinking
- c) Constant flight check
- d) Situational awareness

14. Where can the type of restriction for a restricted airspace be found?

- a) ICAO chart 1:500000
- b) NOTAM
- c) AIC
- d) AIP

15. The force resulting from the (positive) difference from load-bearing capacity and weight force, is referred to as:

- a) Load force
- b) Upper force
- c) Climb force
- d) Lift force

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

16. During a flight in an air mass with a temperature equal to ISA and the QNH set correctly, the indicated altitude is...

- a) Higher than the true altitude
- b) Lower than the true altitude
- c) Equal to the standard atmosphere
- d) Equal to the true altitude

17. Which validity does the "Certificate of Airworthiness" have?

- a) 12 years
- b) 12 months
- c) Unlimited
- d) 6 months

18. Point A on the Earth's surface lies exactly on the parallel of latitude of 47°50'27"N. Which point is exactly 240 NM north of A?

- a) 53°50'27"N
- b) 49°50'27"N
- c) 43°50'27"N
- d) 51°50'27"N

19. What may be the cause of controller icing?

- a) A cloud has been entered at temperature between +5 and -10°C
- b) Temperature in the controller is between -1 °C and -5 °C
- c) Relative humidity is higher than 50%
- d) Liquid gas has entered the controller

Exam simulation

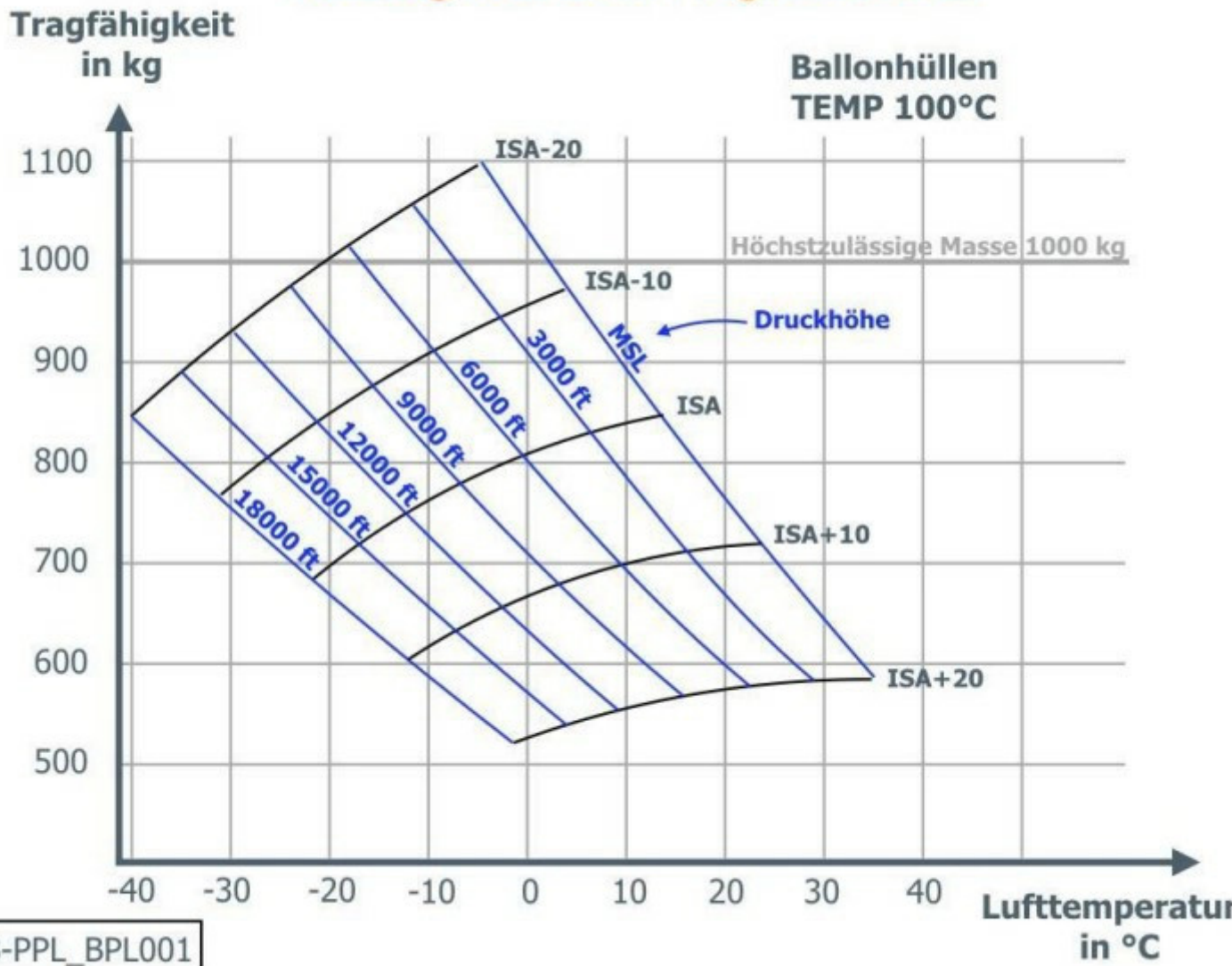
Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

20. Given the following masses: Empty mass 260 kg Instruments 20 kg per gas container (full): 30 kg per person: 80 kg Assuming ISA temperatures, how many persons may be carried in the basket at maximum, if the balloon with 4 gas containers has to climb up to pressure altitude 9.000 ft ? (use attachment ECQB-PPL_BPL001)

Auszug aus dem Flughandbuch



- a) 4
- b) 5
- c) 2
- d) 3

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

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

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

22. What is the function of the red blood cells (erythrocytes)?

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

23. Which transponder code has to be set unrequested during an emergency?

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

24. The standard state of gases refers to which temperature?

- a) 15° C
- b) 5° C
- c) 25° C
- d) 0° C

25. The assembly of the panels to the hull of a web-less gas balloon is done ...

- a) By vulcanisation
- b) By stitching
- c) By welding
- d) By gluing

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

26. Urgency messages are messages...

- a) Concerning aircraft and their passengers which face a grave and imminent threat and require immediate assistance
- b) Concerning the safety of an aircraft, a watercraft or some other vehicle or person in sight
- c) Concerning the operation or maintenance of facilities essential for the safety or regularity of aircraft operation
- d) Sent by a pilot or an aircraft operating agency which have an imminent meaning for aircraft in flight

27. Where does the inclination reach its lowest value?

- a) At the geographic equator
- b) At the magnetic poles
- c) At the magnetic equator
- d) At the geographic poles

28. At time of take-off, ground wind speed is 2 m/s. Along take-off flight path, at a distance of 320 m obstacles erect up to 30 m. What is the minimum rate of climb to keep a clearance of 50 m above the obstacles? (Consider double the ground wind speed for the flight path)

- a) 1 m/s
- b) 1.5 m/s
- c) 2 m/s
- d) 0.5 m/s

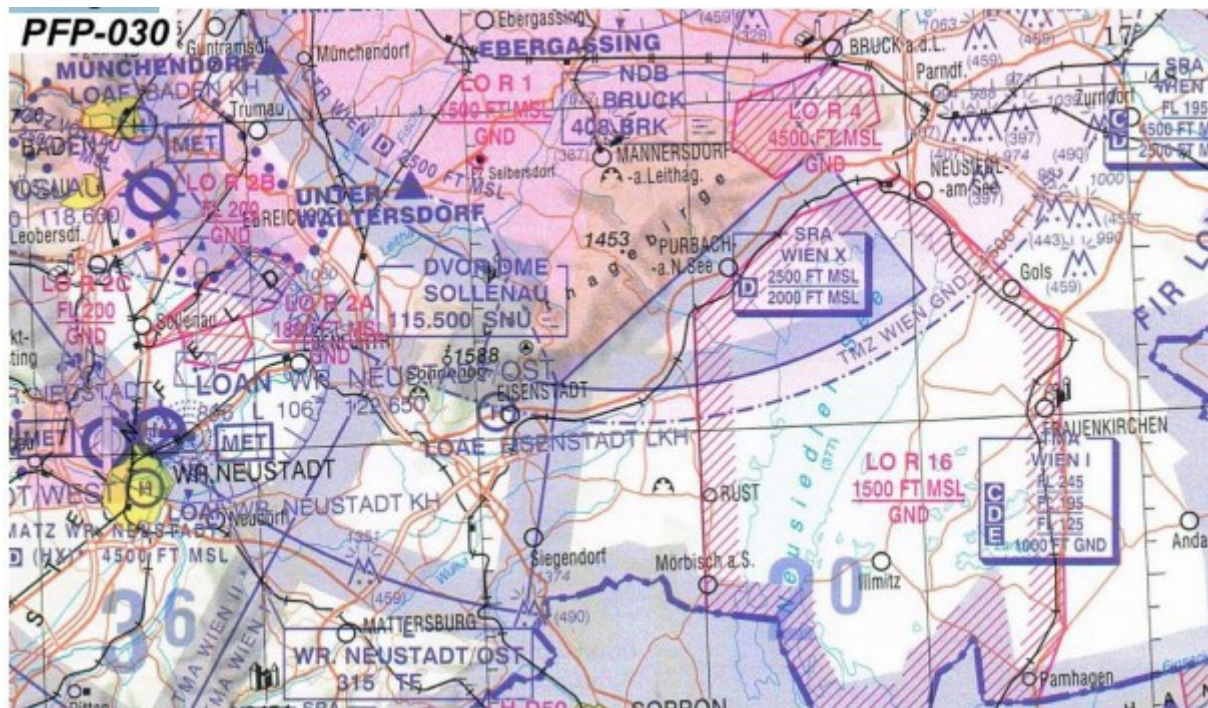
Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

29. The upper limit of LO R 4 equals... See annex (PPF-030)



- a) 1500 ft MSL
- b) 1500 ft AGL
- c) 4500 ft MSL
- d) 4500 ft AGL

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

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

31. What is a latent error?

- a) An error which has an immediate effect on the controls
- b) An error which is made by the pilot actively and consciously
- c) An error which remains undetected in the system for a long time
- d) An error which only has consequences after landing

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

32. The rotational axis of the Earth runs through the...

- a) Geographic North Pole and on the geographic South Pole
- b) Magnetic north pole and on the magnetic south pole
- c) Geographic North Pole and on the magnetic south pole
- d) Magnetic north pole and on the geographic South Pole

33. According ISA, what is the density of air at MSL?

- a) 1.225 g/m³
- b) 1225 kg/m³
- c) 1.225 kg/m³
- d) 12.25 kg/m³

34. What is the meaning of the abbreviation "SERA"?

- a) Selective Radar Altimeter
- b) Standard European Routes of the Air
- c) Specialized Radar Approach
- d) Standardized European Rules of the Air

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

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

36. How often shall a blind transmission be made?

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

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

37. Which of the following documents have to be on board for an international flight? a) Certificate of aircraft registration b) Certificate of airworthiness c) Airworthiness review certificate d) EASA Form-1 e) Airplane logbook f) Appropriate papers for every crew member g) Technical logbook

- a) a, b, c, e, f
- b) d, f, g
- c) b, c, d, e, f, g
- d) a, b, e, g

38. What effect has the elevation above MSL of an airfield on the carrying force and maximum take-off mass of a balloon?

- a) The lower the elevation, the lower the maximum take-off mass
- b) The lower the elevation, the greater the carrying force
- c) The lower the elevation, the higher the maximum take-off mass
- d) The higher the elevation, the greater the carrying force

39. The barometric altimeter indicates height above...

- a) Mean sea level
- b) Ground
- c) A selected reference pressure level
- d) Standard pressure 1013.25 hPa

40. At which height the load carrying capability of a gas balloon is reduced by approximately 50% compared to MSL?

- a) At 6500 m
- b) At 11000 m
- c) At 18000 m
- d) At 1500 m

41. What process results in the formation of "advection fog"?

- a) Warm, moist air is moved across cold ground areas
- b) Cold, moist air is being moved across warm ground areas
- c) Prolonged radiation during nights clear of clouds
- d) Cold, moist air mixes with warm, moist air

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

42. What weather conditions in Central Europe are typically found in high pressure areas during summer?

- a) Small isobar spacing with strong prevailing northerly winds
- b) Large isobar spacing with calm winds, formation of local wind systems
- c) Large isobar spacing with strong prevailing westerly winds
- d) Small isobar spacing with calm winds, formation of local wind systems

43. Moderate to severe turbulence has to be expected...

- a) On the lee side of a mountain range when rotor clouds are present
- b) Below thick cloud layers on the windward side of a mountain range
- c) With the appearance of extended low stratus clouds (high fog)
- d) Overhead unbroken cloud layers

44. With respect to aircraft accident and incident investigation, what are the three categories regarding aircraft occurrences?

- a) Incident, Serious incident, Accident
- b) Event, Serious event, Accident
- c) Happening, Event, Serious event
- d) Event, Crash, Disaster

45. A gas balloon has to be equipped with which tethers?

- a) 1 at 40 m or 4 at 10 m
- b) 1 at 30 m or 3 at 10 m
- c) 2 at 10 m or 1 at 20 m
- d) 2 at 20 m or 1 at 10 m

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

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

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

47. What statement is correct with regard to the density of a gas?

- a) The density increases with increasing temperature and constant volume
- b) The density decreases with increasing temperature and constant volume
- c) The density decreases with increasing temperature and constant pressure
- d) The density decreases with decreasing volume and constant temperature

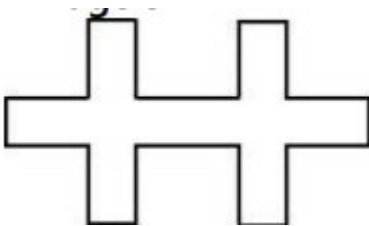
48. The aerostatic lift corresponds to which force?

- a) The dynamic force due to airstream across the top of the hull
- b) The weight of the displaced air
- c) The drag due to airstream around the balloon envelope
- d) The weight of the balloon less ballast

49. Which abbreviation is used for the term "obstacle"?

- a) OBS
- b) OBST
- c) OBTC
- d) OST

50. What is the meaning of this sign at an aerodrome? See figure (ALW-011)



- a) Landing prohibited for a longer period
- b) Glider flying is in progress
- c) After take-off and before landing all turns have to be made to the right
- d) Caution, manoeuvring area is poor

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

51. Lower-than-standard temperature may lead to...

- a) An altitude indication which is too high
- b) A correct altitude indication as long as the altimeter subscale is set to correct for non-standard temperature
- c) An altitude indication which is too low
- d) A blockage of the Pitot tube by ice, freezing the altimeter indication to its present value

52. What does a cloud coverage of "SCT" mean in a METAR weather report?

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

53. On what frequency shall a blind transmission be made?

- a) On a tower frequency
- b) On a radar frequency of the lower airspace
- c) On the appropriate FIS frequency
- d) On the current frequency

54. How many satellites are necessary for a precise and verified three-dimensional determination of the position?

- a) Four
- b) Five
- c) Two
- d) Three

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

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

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

56. How do dew point and relative humidity change with decreasing temperature?

- a) Dew point increases, relative humidity decreases
- b) Dew point remains constant, relative humidity decreases
- c) Dew point remains constant, relative humidity increases
- d) Dew point decreases, relative humidity increases

57. What is the meaning of the phrase "Approved"?

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

58. The Empty Mass of a gas balloon includes:

- a) Ballast packages, basket, hull, valve and towing rope
- b) Basket, burner, ballast packages, hull, net and towing rope
- c) Basket, basket ring, valve, net, hull and towing rope
- d) Burner, ballast packages, instruments, net and towing rope

59. Temperatures will be given by meteorological aviation services in Europe in which unit?

- a) Degrees Centigrade ($^{\circ}$ C)
- b) Degrees Fahrenheit
- c) Gpdam
- d) Kelvin

60. When using a GPS for tracking to the next waypoint, a deviation indication is shown by a vertical bar and dots to the left and to the right of the bar. What statement describes the correct interpretation of the display?

- a) The deviation of the bar from the center indicates the track error as absolute distance in NM; the scale for full deflection is ± 10 NM
- b) The deviation of the bar from the center indicates the track error as angular distance in degrees; the scale for full deflection depends on the operating mode of the GPS
- c) The deviation of the bar from the center indicates the track error as angular distance in degrees; the scale for full deflection is $\pm 10^{\circ}$
- d) The deviation of the bar from the center indicates the track error as absolute distance in NM; the scale for full deflection depends on the operating mode of the GPS

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

61. 5500 m equal...

- a) 7500 ft
- b) 18000 ft
- c) 10000 ft
- d) 30000 ft

62. The term "runway" is defined as a...

- a) Rectangular area on a land or water aerodrome prepared for the landing and take-off of aircraft
- b) Rectangular area on a land aerodrome prepared for the landing and take-off of helicopters
- c) Round area on an aerodrome prepared for the landing and take-off of aircraft
- d) Rectangular area on a land aerodrome prepared for the landing and take-off of aircraft

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

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

64. Which is the purpose of the altimeter subscale?

- a) To reference the altimeter reading to a predetermined level such as mean sea level, aerodrome level or pressure level 1013.25 hPa
- b) To adjust the altimeter reading for non-standard temperature
- c) To set the reference level for the altitude decoder of the transponder
- d) To correct the altimeter reading for system errors

65. What distance corresponds to one degree difference in latitude along any degree of longitude?

- a) 60 km
- b) 30 NM
- c) 1 NM
- d) 60 NM

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

66. Heavy downdrafts and strong wind shear close to the ground can be expected...

- a) During approach to an airfield at the coast with a strong sea breeze
- b) During cold, clear nights with the formation of radiation fog
- c) During warm summer days with high, flattened Cu clouds
- d) Near the rainfall areas of heavy showers or thunderstorms

67. What is meant by "isothermal layer"?

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

68. The distance between two airports is 220 NM. On an aeronautical navigation chart the pilot measures 40.7 cm for this distance. The chart scale is...

- a) 1 : 2000000
- b) 1 : 1000000
- c) 1 : 500000
- d) 1 : 250000

69. The term "ceiling" is defined as the...

- a) Height of the base of the highest layer of clouds covering more than half of the sky below 20000 ft
- b) Height of the base of the lowest layer of clouds covering more than half of the sky below 10000 ft
- c) Altitude of the base of the lowest layer of clouds covering more than half of the sky below 20000 ft
- d) Height of the base of the lowest layer of clouds covering more than half of the sky below 20000 ft

70. The density of helium gas under standard conditions is:

- a) 0,2 kg / m³
- b) 2 kg / m³
- c) 0,02 g / m³
- d) 0,2 g / m³

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



QuizVds.it

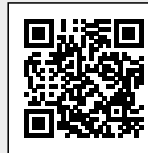
Response Scheme

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

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

Exam simulation

Quiz BPL Gas - Balloon Pilot License - Principles of Flight (Balloon)



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: _____		