

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

STUDENT NAME:

DATE AND TIME:

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

---

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

**02. 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) Breathing takes place using the mouth only
- c) The Eustachian tube is blocked
- d) All windows are completely closed

**03. 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) Static air pressure is measured and compared against a vacuum
- c) Measuring the vertical acceleration through the displacement of a gimbal-mounted mass
- d) Total air pressure is measured and compared to static pressure

**04. 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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

## 05. Which factor can lead to human error?

---

- a) Double check of relevant actions
- b) To be doubtful if something looks unclear or ambiguous
- c) The bias to see what we expect to see
- d) Proper use of checklists

## 06. What effect has air temperature on the carrying force and on maximum take-off mass of a balloon?

---

- a) Maximum take-off mass is higher at low temperatures
- b) Maximum take-off mass is lower at low temperatures
- c) Carrying force is higher at low temperatures
- d) Carrying force is lower at low temperatures

## 07. Under which conditions, no hazards should be expected for a balloon ride?

---

- a) With high pressure areas before sunset
- b) With a warm front approaching
- c) With a cold front approaching
- d) Close to showers or thunderstorms

## 08. Urgency messages are defined as...

---

- a) Messages concerning aircraft and their passengers which face a grave and imminent threat and require immediate assistance
- b) Messages concerning urgent spare parts which are needed for a continuation of flight and which need to be ordered in advance
- c) Messages concerning the safety of an aircraft, a watercraft or some other vehicle or person in sight
- d) Information concerning the apron personnel and which imply an imminent danger to landing aircraft

## 09. Visual illusions are mostly caused by...

---

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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

**10. What change results from an increase in temperature of the carrying gas and of the environmental air at a gas balloon at maximum differential pressure?**

---

- a) The load capability decreases by 4% per K temperature change
- b) The load capability increases by 4% per K temperature change
- c) The load capability increases by 0.4% per K temperature change
- d) The load capability decreases by 0.4% per K temperature change

**11. How does a gas react when released from a pressurized container?**

---

- a) The gas heats adiabatically due to expansion
- b) The gas cools adiabatically due to expansion
- c) The gas condenses inside the envelope
- d) The gas cools due to thermal contact with environmental air

**12. The minimum length of the towing rope is:**

---

- a) 20 m
- b) 50 m
- c) 100 m
- d) 30 m

**13. QFE is the...**

---

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

**14. The formation of medium to large precipitation particles requires...**

---

- a) An inversion layer
- b) A high cloud base
- c) Strong wind
- d) Strong updrafts

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

---

**15. What does a cloud coverage of "FEW" mean in a METAR weather report?**

---

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

---

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

---

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

---

**17. What is the difference between a gas balloon at or below maximum differential pressure during climb?**

---

- a) The balloon at maximum differential pressure climbs with constant rate to unlimited height
- b) The balloon below maximum differential pressure climbs with constant rate up to maximum differential pressure height
- c) The balloon below maximum differential pressure climbs with constant rate to unlimited height
- d) The balloon at maximum differential pressure climbs with constant rate up to maximum differential pressure height

---

**18. The vertical speed indicator measures the difference of pressure between...**

---

- a) The present dynamic pressure and the dynamic pressure of a previous moment
- b) The present total pressure and the total pressure of a previous moment
- c) The present dynamic pressure and the static pressure of a previous moment
- d) The present static pressure and the static pressure of a previous moment

---

**19. What is the meaning of the phrase "Roger"?**

---

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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

## 20. A true altitude is...

---

- a) A height above ground level corrected for non-standard pressure
- b) An altitude above mean sea level corrected for non-standard temperature
- c) A height above ground level corrected for non-standard temperature
- d) A pressure altitude corrected for non-standard temperature

## 21. Which area could be crossed with certain restrictions?

---

- a) Restricted area
- b) No-fly zone
- c) Prohibited area
- d) Dangerous area

## 22. Aerostatic lift, amongst other factors, depends on...

---

- a) On the speed
- b) Balloon mass
- c) Shape of the envelope
- d) Air density

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

---

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

## 24. 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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

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

---

- a) Traffic information
- b) Taxi instructions
- c) Heading
- d) Altimeter setting

## 26. What is meant by the term "terrestrial navigation"?

---

- a) Orientation by instrument readings during visual flight
- b) Orientation by ground features during visual flight
- c) Orientation by GPS during visual flight
- d) Orientation by ground celestial object during visual flight

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

---

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

## 28. Assume two arbitrary points A and B on the same parallel of latitude, but not on the equator. Point A is located on 010°E and point B on 020°E. The rhumb line distance between A and B is always...

---

- a) More than 300 NM
- b) Less than 300 NM
- c) Less than 600 NM
- d) More than 600 NM

## 29. 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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

## 30. The burst of a hydrogen pressure line may result in what risk?

---

- a) The risk of hydrogen collecting in the basket and causing breath shortness
- b) The risk of hydrogen self-igniting and burning with a bright flame
- c) The risk of hydrogen dissipating to the atmosphere and poisoning the air
- d) The risk of hydrogen self-igniting and burning with invisible flame

## 31. Given: TC: 179°; WCA: -12°; VAR: 004° E; DEV: +002° What are MH and MC?

---

- a) MH: 167°. MC: 175°
- b) MH: 167°. MC: 161°
- c) MH: 163°. MC: 175°
- d) MH: 163°. MC: 161°

## 32. 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

## 33. What has to be expected during descent above a heated water surface?

---

- a) The rate of descent decreases
- b) The horizontal speed decreases
- c) The horizontal speed increases
- d) The rate of descent increases

## 34. Where are the two polar circles?

---

- a) 23.5° north and south of the poles
- b) 23.5° north and south of the equator
- c) At a latitude of 20.5°S and 20.5°N
- d) 20.5° south of the poles

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

## 35. 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

## 36. The "spread" is defined as...

---

- a) Difference between dew point and condensation point
- b) Relation of actual to maximum possible humidity of air
- c) Difference between actual temperature and dew point
- d) Maximum amount of water vapour that can be contained in air

## 37. Which phrase is to be used when a pilot wants the tower to know that he is ready for take-off?

---

- a) Ready for start-up
- b) Ready for departure
- c) Ready
- d) Request take-off

## 38. In what situation is it appropriate to set the transponder code 7600?

---

- a) Hijacking
- b) Loss of radio
- c) Flight into clouds
- d) Emergency

## 39. 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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

**40. 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

**41. What difference will be experienced during take-off in presence of a strong surface inversion, compared to a take-off with decreasing temperature with height?**

---

- a) During climb through an inversion, less ballast must be released and/or less heating is required
- b) During climb through an inversion, less ballast must be released and/or more heating is required
- c) During climb through an inversion, more ballast must be released and/or more heating is required
- d) During climb through an inversion, more ballast must be released and/or less heating is required

**42. How can expanding filling gas be released in case the filling port of a gas balloon cannot be opened during cruise?**

---

- a) By activating the pull rope
- b) Through the emergency opening
- c) By releasing the filling port cables
- d) By turning the Poeschelring

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

---

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

**44. A flight level is a...**

---

- a) True altitude
- b) Density altitude
- c) Pressure altitude
- d) Altitude above ground

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

**45. The movement of air flowing apart is called...**

---

- a) Divergence
- b) Concordance
- c) Convergence
- d) Subsidence

**46. The movement of air flowing together is called...**

---

- a) Subsidence
- b) Convergence
- c) Divergence
- d) Confluence

**47. 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

**48. While overflying a waypoint, it is stated that a distance of 3 NM has been taken 10 min. What will be the expected time of endurance for the remaining distance of 18 NM?**

---

- a) 60 min
- b) 12 min
- c) 90 min
- d) 180 min

**49. The average decrease of blood alcohol level for an adult in one hour is approximately...**

---

- a) 0.3 percent
- b) 0.03 percent
- c) 0.01 percent
- d) 0.1 percent

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

## 50. The measurement of altitude is based on the change of the...

---

- a) Dynamic pressure
- b) Static pressure
- c) Differential pressure
- d) Total pressure

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

---

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

## 52. Which wind system may be dangerous for balloon rides in the Alps?

---

- a) Bora
- b) Mistral
- c) Foehn
- d) Scirocco

## 53. The saturated adiabatic lapse rate should be assumed with a mean value of:

---

- a) 2° C / 1000 ft
- b) 1.0° C / 100 m
- c) 0.6° C / 100 m
- d) 0° C / 100 m

## 54. In which situations should a pilot use blind transmissions?

---

- a) When a transmission containing important navigational or technical information is to be sent to several stations at the same time
- b) When a pilot has flown into cloud or fog unintentionally and therefore would like to request navigational assistance from a ground unit
- c) When no radio communication can be established with the appropriate aeronautical station, but when evidence exists that transmissions are received at that ground unit
- d) When the traffic situation at an airport allows the transmission of information which does not need to be acknowledged by the ground station

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

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

---

- a) Degrees Centigrade (° C)
- b) Degrees Fahrenheit
- c) Gpdam
- d) Kelvin

**56. 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

**57. If there is any doubt about ambiguity, a time of 1620 is to be transmitted as...**

---

- a) One six two zero
- b) Sixteen twenty
- c) One thousand six hundred two zero
- d) Two zero

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

---

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

**59. How will the sag of the pull rope change during descent?**

---

- a) It will remain unchanged
- b) It will increase
- c) It will change periodically
- d) It will decrease

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

**60. What is a direct consequence of increase of the carrying gas temperature at a gas balloon with maximum differential pressure?**

---

- a) Climb force decreases
- b) Weight force increases
- c) Lift force decreases
- d) Load-bearing capability increases

**61. What is the difference in time when the sun moves 20° of longitude?**

---

- a) 1:00 h
- b) 1:20 h
- c) 0:20 h
- d) 0:40 h

**62. 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

**63. A balloon pilot decides to use one or more separate gas containers for initial heating during buildup. To ensure a safe buildup ...**

---

- a) To expedite take-off, the gas containers have to be stored outside
- b) No separate gas containers are allowed during buildup
- c) The gas containers have to be fixed safely inside the basket
- d) Two gas containers (one inside, one outside) are to be used

**64. Under which circumstances is it more likely to accept higher risks?**

---

- a) During check flights due to a high level of nervousness
- b) During flight planning when excellent weather is forecast
- c) Due to group-dynamic effects
- d) If there is not enough information available

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

**65. Under what conditions may class D airspace be entered with a radio failure?**

---

- a) It is the destination aerodrome
- b) Approval has been granted before
- c) It is the aerodrome of departure
- d) There are other aircraft in the aerodrome circuit

**66. What is the correct designation of the frequency band from 118.000 to 136.975 MHz used for voice communication?**

---

- a) VHF
- b) MF
- c) LF
- d) HF

**67. What has to be considered at moderate wind speeds during a balloon ride across mountainous area with cloud-free sky?**

---

- a) Icing conditions
- b) Altimeter indication too low
- c) Lee waves and severe up- and downdrafts
- d) Decreasing burner power

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

---

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

**69. During a balloon ride, visibility continuously becomes poorer, also cloud base decreases in direction of the current track. How should the balloon pilot react to this situation?**

---

- a) Continue ride in remaining altitude
- b) Use next best chance for landing
- c) Use GPS or radio navigation to continue ride in clouds
- d) Break through the clouds and continue above clouds

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

**70. Which phrase is to be repeated three times before transmitting an urgency message?**

---

- a) Pan Pan
- b) Help
- c) Urgent
- d) Mayday

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



QuizVds.it

## Response Scheme

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

01: C

02: C

03: A

04: C

05: C

06: C

07: A

08: C

09: A

10: D

11: B

12: D

13: D

14: D

15: D

16: D

17: C

18: D

19: D

20: B

21: A

22: D

23: C

24: A

25: A

26: B

27: D

28: C

29: D

30: D

31: C

32: D

33: D

34: A

35: A

36: C

37: B

38: B

39: A

40: A

41: C

42: B

43: A

44: C

45: A

46: B

47: D

48: B

49: C

50: B

51: A

52: C

53: C

54: C

55: A

56: B

57: A

58: A

59: D

60: D

61: B

62: C

63: C

64: C

65: B

66: A

67: C

68: A

69: B

70: A

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Aircraft General Knowledge



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: _____		