

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

STUDENT NAME:

DATE AND TIME:

**01. 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

**02. In what cases is visibility transmitted in kilometers?**

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

**03. What wind conditions should be expected in the vicinity of showers or thunderstorms?**

- a) Calm winds during passage of a shower
- b) Steady wind from direction of shower
- c) Strong gust from variable directions
- d) Steady wind into direction of shower

**04. 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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

## 05. How does the norm height of a gas balloon with maximum differential pressure change by dropping ballast?

---

- a) It increases by 8 m when total mass is reduced by 10%
- b) It increases by 80 m when total mass is reduced by 1%
- c) It decreases by 8 m when total mass is reduced by 10%
- d) It decreases by 80 m when total mass is reduced by 1%

## 06. What phrase is used by a pilot to inform the tower about a go-around?

---

- a) Approach canceled
- b) Going around
- c) No landing
- d) Pulling up

## 07. How does the norm height of a gas balloon with maximum differential pressure change, when its mass is reduced by 1%?

---

- a) Norm height increases by 800 m
- b) Norm height decreases by 800 m
- c) Norm height decreases by 80 m
- d) Norm height increases by 80 m

## 08. What statement is correct with regard to change in temperature?

---

- a) During climb, the carrying gas warms due to thermal exchange with environmental air
- b) During descent, the carrying gas warms adiabatically
- c) During descent, the carrying gas warms due to thermal exchange with environmental air
- d) During climb, the carrying gas warms adiabatically

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

---

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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

## 10. Which stage of a thunderstorm is dominated by updrafts?

---

- a) Upwind stage
- b) Cumulus stage
- c) Mature stage
- d) Dissipating stage

## 11. What is the minimum flight visibility in airspace "C" for an aircraft operating under VFR at FL125?

---

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

## 12. 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

## 13. At time of take-off, ground wind speed is 3 m/s. Along take-off flight path, at a distance of 360 m obstacles erect up to 40 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) 2 m/s
- c) 0.5 m/s
- d) 1.5 m/s

## 14. 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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

## 15. 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

## 16. What is the correct course of action when experiencing a radio failure in class D airspace?

---

- a) The flight has to be continued above 5000 feet complying with VFR flight rules or the airspace has to be left by the shortest route
- b) The flight has to be continued according to the last clearance complying with VFR flight rules or the airspace has to be left using a standard routing
- c) The flight has to be continued according to the last clearance complying with VFR rules or the airspace has to be left by the shortest route
- d) The flight has to be continued above 5000 feet complying with VFR flight rules or the airspace has to be left using a standard routing

## 17. 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

## 18. The emergency opening of a gas balloon is located where?

---

- a) To the side of the appendix
- b) At the upper pole
- c) At the equator
- d) To the side of the valve

## 19. With pressure and temperature given, any gas being heavier or lighter than air depends on what?

---

- a) On the content of water vapour in the gas
- b) On the mean kinetic energy of the molecules
- c) On the number of gas molecules
- d) On the molecule mass of the gas

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations

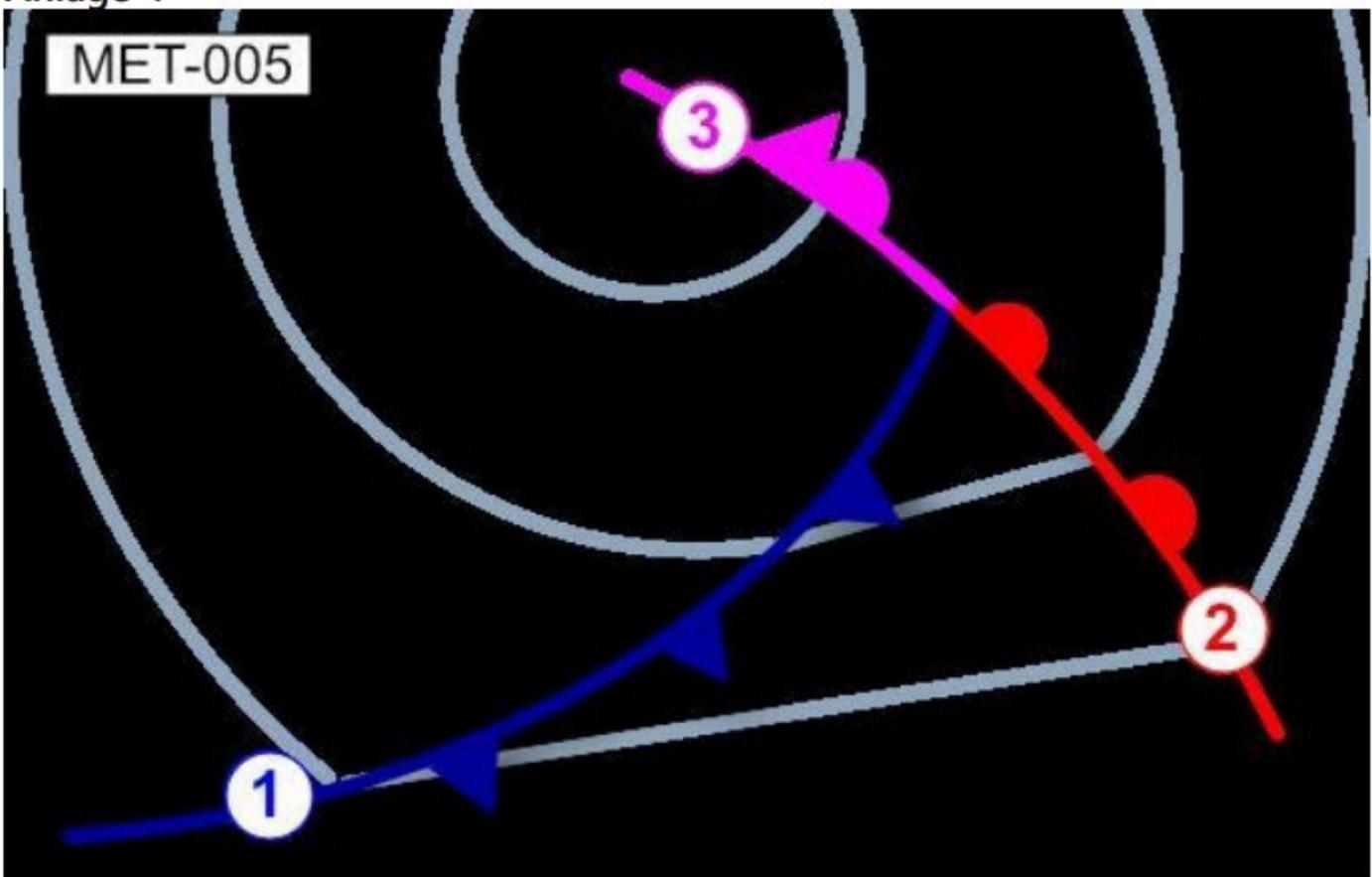


QuizVds.it

**20. Point A on the Earth's surface lies exactly on the parallel of latitude of  $47^{\circ}50'27''N$ . Which point is exactly 240 NM north of A?**

- a)  $53^{\circ}50'27''N$
- b)  $49^{\circ}50'27''N$
- c)  $43^{\circ}50'27''N$
- d)  $51^{\circ}50'27''N$

**21. The symbol labeled (2) as shown in the picture is a / an... See figure (MET-005)**



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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

## 22. What weather phenomena have to be expected around an upper-level trough?

---

- a) Formation of high stratus clouds, ground-covering cloud bases
- b) Calm weather, formation of lifted fog layers
- c) Development of showers and thunderstorms (Cb)
- d) Calm wind, forming of shallow cumulus clouds

## 23. While overflying a waypoint, it is stated that a distance of 2 NM has been taken 10 min. What will be the expected time of endurance for the complete distance of 18 NM?

---

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

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

---

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

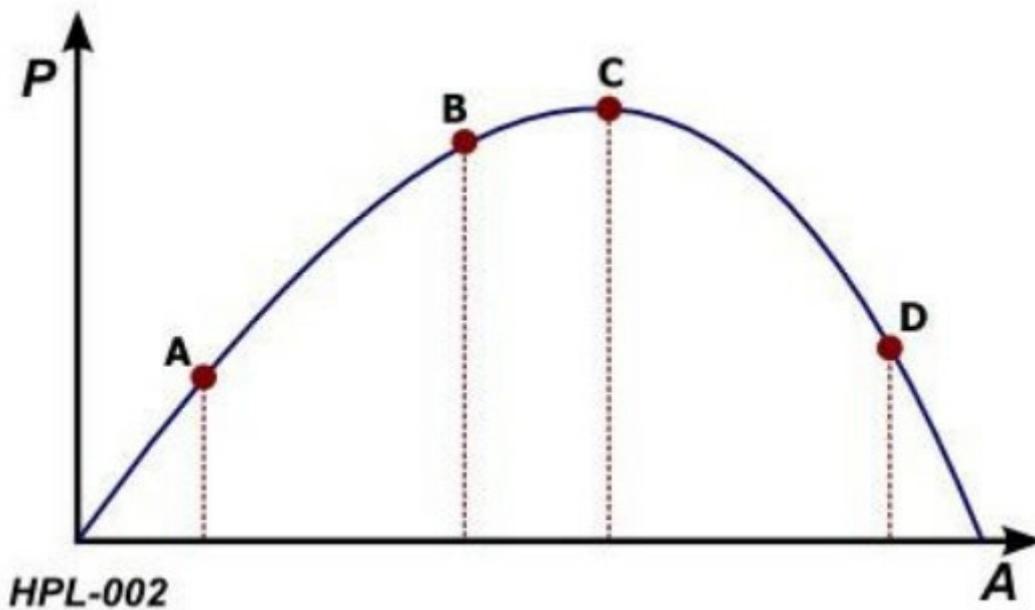
# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

25. At which point in the diagram will a pilot find himself to be overstrained? See figure (HPL-002) P = Performance A = Arousal / Stress



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

26. With regard to thunderstorms, strong up- and downdrafts appear during the...

- a) Mature stage
- b) Dissipating stage
- c) Thunderstorm stage
- d) Initial stage

27. With other factors remaining constant, decreasing temperature results in...

- a) Decreasing spread and decreasing relative humidity
- b) Decreasing spread and increasing relative humidity
- c) Increasing spread and decreasing relative humidity
- d) Increasing spread and increasing relative humidity

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

## 28. What must be considered for cross-border flights?

---

- a) Transmission of hazard reports
- b) Approved exceptions
- c) Regular location messages
- d) Requires flight plans

## 29. The majority of aviation accidents are caused by...

---

- a) Human failure
- b) Technical failure
- c) Geographical influences
- d) Meteorological influences

## 30. 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

## 31. What is the primary purpose of an aircraft accident investigation?

---

- a) To determine the guilty party and draw legal consequences
- b) To identify the reasons and work out safety recommendations
- c) To clarify questions of liability within the meaning of compensation for passengers
- d) To work for the public prosecutor and help to follow-up flight accidents

## 32. 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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

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

---

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

## 34. 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

## 35. An ATIS is valid for...

---

- a) 45 minutes
- b) 30 minutes
- c) 60 minutes
- d) 10 minutes

## 36. The density of helium gas under standard conditions is:

---

- a) 0,2 kg / m<sup>3</sup>
- b) 2 kg / m<sup>3</sup>
- c) 0,02 g / m<sup>3</sup>
- d) 0,2 g / m<sup>3</sup>

## 37. Which weather phenomenon is typically associated with wind shear?

---

- a) Invernal warm front
- b) Thunderstorms
- c) Stable high pressure areas
- d) Fog

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

## 38. 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

## 39. 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

## 40. The movement of air flowing apart is called...

---

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

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

---

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

## 42. 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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

**43. The ratio between air pressures at different heights is referred to as:**

---

- a) Height value
- b) Pressure number
- c) Height ratio
- d) Height number

**44. What is the minimum flight visibility in airspace "E" for an aircraft operating under VFR at FL75?**

---

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

**45. What is the purpose of the signal square at an aerodrome?**

---

- a) It is a specially marked area to pick up or drop towing objects
- b) It is an illuminated area on which search and rescue and fire fighting vehicles are placed
- c) It contains special symbols to indicate the conditions at the aerodrome visually to over-flying aircraft
- d) Aircraft taxi to this square to get light signals for taxi and take-off clearance

**46. The altimeter's reference scale is set to airfield pressure (QFE). What indication is shown during the flight?**

---

- a) Airfield elevation
- b) Pressure altitude
- c) Altitude above MSL
- d) Height above airfield

**47. 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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

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

---

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

**49. 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  $\pm 10$  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

**50. What does a readability of 2 indicate?**

---

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

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

---

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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

**52. What phrase is used by a pilot if a transmission is to be answered with "no"?**

---

- a) Finish
- b) Negative
- c) No
- d) Not

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

---

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

**54. Information about operational limits, loading and performance about an aircraft can be taken from which document?**

---

- a) Airworthiness certificate
- b) Operating handbook
- c) Certificate of registration
- d) Flight Log book

**55. 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

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

---

- a) 1.225 g/m<sup>3</sup>
- b) 1225 kg/m<sup>3</sup>
- c) 1.225 kg/m<sup>3</sup>
- d) 12.25 kg/m<sup>3</sup>

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

## 57. What information is broadcasted on a VOLMET frequency?

---

- a) Meteorological information
- b) NOTAMS
- c) Navigational information
- d) Current information

## 58. Which transponder code should be set during a radio failure without any request?

---

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

## 59. 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

## 60. The barometric altimeter with QNH setting indicates...

---

- a) Height above the pressure level at airfield elevation
- b) Height above standard pressure 1013.25 hPa
- c) True altitude above MSL
- d) Height above MSL

## 61. 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 - Human Performance and limitations



QuizVds.it

## 62. 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

## 63. Which are the properties of a Mercator chart?

---

- a) The scale increases with latitude, great circles are depicted as curved lines, rhumb lines are depicted as straight lines
- b) The scale is constant, great circles are depicted as curved lines, rhumb lines are depicted as straight lines
- c) The scale increases with latitude, great circles are depicted as straight lines, rhumb lines are depicted as curved lines
- d) The scale is constant, great circles are depicted as straight lines, rhumb lines are depicted as curved lines

## 64. The dynamic lift created by airflow across the top of the envelope of a balloon on the ground is referred to as?

---

- a) Upper lift
- b) Anti-ballast
- c) Lower lift
- d) False lift

## 65. 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

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

---

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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

## 67. With regard to gases, which statement is correct?

---

- a) Temperature decreases with increasing pressure and constant volume
- b) Volume increases with increasing temperature and constant pressure
- c) Pressure decreases with increasing temperature and constant volume
- d) Temperature increases with increasing volume and decreasing pressure

## 68. 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

## 69. The altimeter is switched from local QNH to 1013.25 hPa...

---

- a) When climbing above the transition altitude
- b) At 4000 ft
- c) At the decision height
- d) When descending below FL 100

## 70. 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

# Exam simulation

Exam BPL Gas - Balloon Pilot License - Human Performance and limitations



QuizVds.it

## Response Scheme

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

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

# Exam simulation

Exam BPL Gas - Balloon 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: _____		