Quiz BPL Gas - Balloon Pilot License - Communication



STUDENT NAME:	DATE AND TIME:

### 01. 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

#### 02. Damages at the basket ropes have to be fixed by:

- a) By the balloon pilot.
- b) Upon the next Aeronautical Recurrence Certification.
- c) By an Aprroved Aeronautical Workshop.
- d) By tying with a part of a spare rope (during cruise)

#### 03. 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

#### 04. What conditions are mandatory for the formation of thermal thunderstorms?

- a) Absolutely stable atmosphere, high temperature and high humidity
- b) Absolutely stable atmosphere, high temperature and low humidity
- c) Conditionally unstable atmosphere, high temperature and high humidity
- d) Conditionally unstable atmosphere, low temperature and low humidity

#### 05. 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

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06. 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 rumb line distance between A and B is always...

on 010°E and point B on 020°E. The rumb 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
07. Doubling the pressure of a dry gas at constant temperature results in a change of the volume to:
a) Double the previous value
b) Four times the previous value.
c) Half the previous value.
d) A quarter of the previous value.
08. Vienna (LOWW) is located at 016° 34'E, Salzburg (LOWS) at 013° 00'E. The latitude of both positions can be considered as equal. What is the difference of sunrise and sunset times, expressed in UTC, between Wien and Salzburg? (2,00 P.)
a) In Vienna the sunrise and sunset are about 4 minutes later than in Salzburg
b) In Vienna the sunrise and sunset are about 14 minutes earlier than in Salzburg
c) In Vienna the sunrise is 4 minutes later and sunset is 4 minutes earlier than in Salzburg
d) In Vienna the sunrise is 14 minutes earlier and sunset is 14 minutes later than in Salzburg
09. The vertical extend of air with pressure changing by 1% with 80 m difference in height is referred to as
a) Unstable
b) Homogene
c) Stable
d) Inhomogene
10. What phrase is used by a pilot if a transmission is to be answered with "no"?
a) Finish

b) Negativec) Nod) Not

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#### 11. During a flight in colder-than-ISA air the indicated altitude is...

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

#### 12. In which way may an altimeter subscale which is set to an incorrect QNH lead to an incorrect altimeter reading?

- a) If the subscale is set to a higher than actual pressure, the indication is too low. This may lead to much greater heights above the ground than intended
- b) If the subscale is set to a lower than actual pressure, the indication is too high. This may lead to much closer proximity to the ground than intended
- c) If the subscale is set to a lower than actual pressure, the indication is too low. This may lead to much closer proximity to the ground than intended
- d) If the subscale is set to a higher than actual pressure, the indication is too high. This may lead to much closer proximity to the ground than intended

#### 13. What has to be considered before a balloon ride across water surfaces?

- a) A transponder has to be installed and carried aboard
- b) For all people inside the basket life jackets have to be carried aboard
- c) A flight plan with detailled routing has to be filed.
- d) Continuous radio communication has to be established with air traffice control

#### 14. In what case is visibility transmitted in meters?

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

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

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

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#### 16. 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.

#### 17. The minimum length of the towing rope is:

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

#### 18. 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.

#### 19. 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.

### 20. 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.

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#### 21. The purpose of the drag lines of the parachute is ...

- a) To transfer the carrying force of the balloon in the top opening area
- b) To transfer the force from the pull rope to the parachute.
- c) To keep the parachute in the center of the top opening.
- d) To transfer the force from the pull rope to the free-balloon hull.

#### 22. How should a landing of a gas balloon be conducted at strong winds?

- a) Drop tow; in sufficient height activate rip panel
- b) Activate rip panel without throwing tow
- c) Drop tow; activate rip panel after ground contact
- d) Drop tow; conduct landing with use of valve

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

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

#### 24. 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

#### 25. 1000 ft equal...

- a) 3000 m.
- b) 300 m.
- c) 30 km.
- d) 30 m.

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

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

#### 27. Which instrument can be affected by the hysteresis error?

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

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

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

#### 29. What is the correct way to transmit the call sign HB-YKM?

- a) Hotel Bravo Yuliett Kilo Mikro
- b) Home Bravo Yuliett Kilo Mike
- c) Home Bravo Yankee Kilo Mikro
- d) Hotel Bravo Yankee Kilo Mike

#### 30. What is the correct way of acknowledging "You are now entering airspace Delta"?

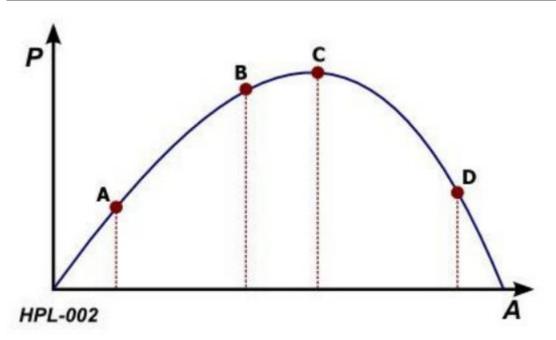
- a) Entering
- b) Airspace Delta
- c) Wilco
- d) Roger

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QuizVds.it

### 31. The ideal level of arousal is at which point in the diagram? See figure (HPL- 002) P = Performance A = Arousal / Stress Siehe Anlage 1



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

32. 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.

#### 33. 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

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#### 34. 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 aircraf

#### 35. 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

#### 36. 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.

#### 37. 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.

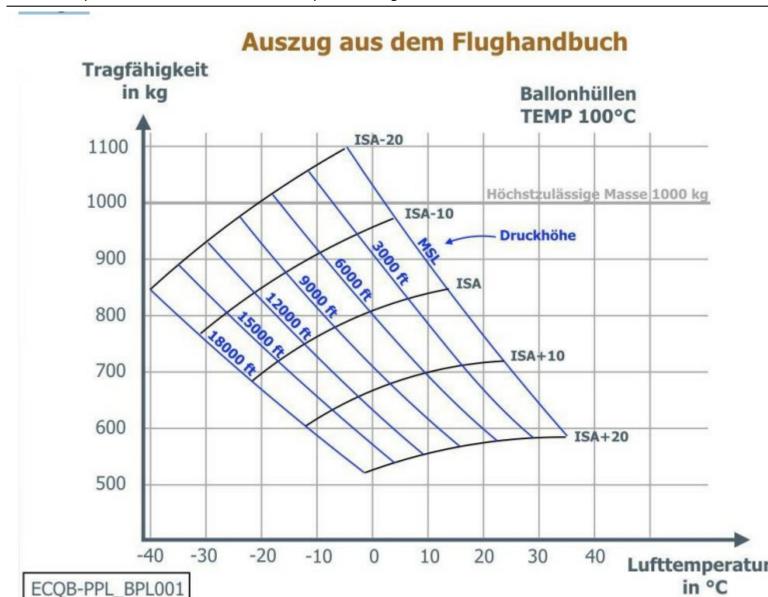
#### 38. The ratio between air pressures at different heights is referred to as:

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

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39. Given the following masses: Empty mass 240 kg Instruments 20 kg per gas container (full): 30 kg per person: 80 kg l which pressure altitude can the balloon climb with 5 persons and 4 gas containers in the basket, assuming temperatures below ISA? (use attachment ECQB-PPL\_BPL001) Siehe Anlage 1





b) 17000 ft

d) 7000 ft

c) 13000 ft

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### 40. 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

#### 41. The "swiss cheese model" can be used to explain the...

- a) Optimal problem solution
- b) State of readiness of a pilot
- c) Procedure for an emergency landing
- d) Error chain.

#### 42. The standard state of gases refers to which temperature?

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

#### 43. 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) Evaporation from warm, moist ground area into very cold air
- d) Cold, moist air mixes with warm, moist air

44. 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

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#### 45. 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.

#### 46. What does a readability of 1 indicate?

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

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

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

#### 48. An aerodrome beacon (ABN) is a...

- a) Rotating beacon installed at an airport or aerodrome to indicate its location to aircraft pilots from the ground.
- b) Rotating beacon installed at the beginning of the final approach to indicate its location to aircraft pilots from the air.
- c) Fixed beacon installed at an airport or aerodrome to indicate its location to aircraft pilots from the air
- d) Rotating beacon installed at an airport or aerodrome to indicate its location to aircraft pilots from the air.

#### 49. What can be expected for the prevailling wind with isobars on a surface weather chart showing large distances?

- a) Low pressure gradients resulting in low prevailling wind
- b) Strong pressure gradients resulting in strong prevailling wind
- c) Strong pressure gradients resulting in low prevailling wind
- d) Low pressure gradients resulting in strong prevailling wind

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#### 50. 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

#### 51. What change of wind direction can be expected during the passage of a polar front low in Central Europe?

- a) Backing wind during passage of the warm front, veering wind during passage of the cold front
- b) Backing wind during passage of the warm front, backing wind during passage of the cold front
- c) Veering wind during passage of the warm front, backing wind during passage of the cold front
- d) Veering wind during passage of the warm front, veering wind during passage of the cold front

#### 52. What is the percentage of nitrogen in the atmosphere?

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

#### 53. During a flight, a flight plan can be filed at the...

- a) Search and Rescue Service (SAR).
- b) Next airport operator en-route.
- c) Flight Information Service (FIS).
- d) Flight Information Service (FIS).

### 54. 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 complete distance of 18 NM?

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- b) 90 min.
- c) 12 min
- d) 180 min.

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#### 55. Under which conditions, no harzards should be expected for a balloon ride?

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

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

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

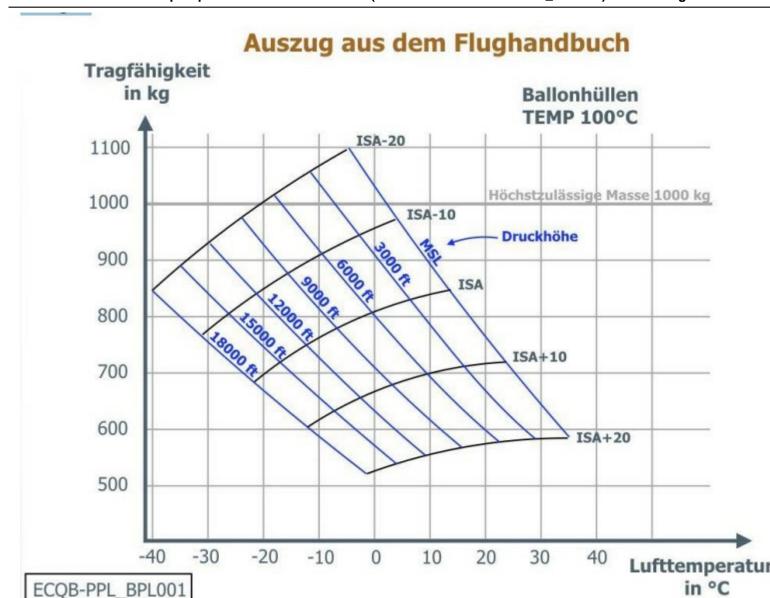
#### 57. Which are the different parts of the Aeronautical Information Publication (AIP)?

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

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58. 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) Siehe Anlage 1





b) 5

c) 2

d) 3

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#### 59. Before buildup, the buildup team has to be informed about correct behaviour at sudden critical situations how?

- a) Only at gusty winds
- b) Twice
- c) At least zwo days before
- d) By the balloon pilot

#### 60. 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.

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

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

#### 62. What is the meaning of an area marked as "TMZ"?

- a) Touring Motorglider Zone
- b) Traffic Management Zone
- c) Transponder Mandatory Zone
- d) Transportation Management Zone

#### 63. 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





64. (For this question, please use annex PFP-062) According ICAO, what symbol indicates a civil airport (not international airport) with paved runway? Siehe Anlage 6

















PFP-062

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

#### 65. The character of an air mass is given by what properties?

- a) Wind speed and tropopause height
- b) Environmental lapse rate at origin
- c) Temperatures at origin and present region
- d) Region of origin and track during movement

#### 66. In a METAR, "(moderate) showers of rain" are designated by the identifier...

- a) .+TSRA.
- b) TS.
- c) SHRA.
- d) .+RA.

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#### 67. Which of the stated surfaces will reduce the wind speed most due to ground friction?

- a) Flat land, lots of vegetation cover
- b) Oceanic areas
- c) Mountainous areas, vegetation cover
- d) Flat land, deserted land, no vegetation

#### 68. What is the minimum flight visibility in airspace "C" below FL 100 for an aircraft operating under VFR?

- a) 5 km
- b) 1.5 km
- c) 10 km
- d) 8 km

#### 69. What is the meaning of the abbreviation "ARC"?

- a) Airspace Restriction Criteria
- b) Airworthiness Recurring Control
- c) Airworthiness Review Certificate
- d) Airspace Rulemaking Committee

#### 70. What visual flight conditions can be expected after the passage of a cold front?

- a) Poor visibility, formation of overcast or ground-covering stratus clouds, snow
- b) Medium visibility with lowering cloud bases, onset of prolonged precipitation
- c) Good visiblity, formation of cumulus clouds with showers of rain or snow
- d) Scattered cloud layers, visbility more than 5 km, formation of shallow cumulus clouds

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# Response Scheme Compare your answers with the following diagram and mark your score!

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

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# 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:		