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STUDENT NAME:	DATE AND TIME:
01. Which information from a ground station d	oes not require readback?
a) SSR-Code	<u> </u>
b) Wind	
c) Altitude	
d) Runway in use	
, , , , , , , , , , , , , , , , , , , ,	
02. At time of take-off, ground wind speed is 3 up to 40 m. What is the minimum rate of climb the ground wind speed for the flight path)	m/s. Along take-off flight path, at a distance of 360 m obstacles erect to keep a clearance of 50 m above the obstacles? (Consider double
a) 1 m/s	
b) 2 m/s	
c) 0.5 m/s	
d) 1.5 m/s	
03. 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).	
04. While overflying a waypoint, it is stated that expected time of endurance for the remaining	at a distance of 3 NM has been taken 10 min. What will be the distance of 18 NM?
a) 60 min.	
b) 12 min.	
c) 90 min.	

d) 180 min.

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

- a) At 6.500 m
- b) At 11.000 m
- c) At 18.000 m
- d) At 1.500 m

06. 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

07. 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

08. 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

09. What is the purpose of the closing rope of a gas balloon?

- a) To close the sand disposer
- b) To close the appendix
- c) To close the emergency opening
- d) To secure the towing rope

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10. A cross-country flight is made using the ICAO 1 : 500.000 aeronautical chart. An overflight crosscheck shows that a distance of 6 cm in the chart has been passed within 9 minutes. After how many more minutes, the overflight of another waypoint at a chart distance of additional 4 cm can be expected?

a) 18 min.
b) 6 min.
c) 12 min
d) 9 min.
11. 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.
12. 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
13. 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.
a, contrary a photor arrandonal operating agency which have an immunity meaning for another in hight.
14. From which altitude on does the body usually react to the decreasing atmospheric pressure?
a) 7000 feet

b) 12000 feetc) 2000 feetd) 10000 feet

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15. After take-off with a balloon, obstacles at a distance of 300 m erect in expected flight path up to 40 m height. Rate of climb is expected with 1.5 m/s. What maximum actual wind speed can be accepted to maintain a clearance of 50 m above obstacles, assuming double the actual wind speed for calculation?

of 50 m above obstacles, assuming double the actual wind speed for calculation?
a) 8 m/s
b) 2.5 m/s
c) 10 m/s
d) 1 m/s
16. Which transponder code indicates a radio failure?
a) 7700
b) 7600
c) 7500
d) 7000
17. Distress messages are messages
a) Sent by a pilot or an aircraft operating agency which have an imminent meaning for aircraft in flight.
b) Concerning aircraft and their passengers which face a grave and imminent threat and require immediate assistance.
c) Concerning the safety of an aircraft, a watercraft or some other vehicle or person in sight.
d) Concerning the operation or maintenance of facilities which are important for the safety and regularity of flight operations
18. Environmental air temperature and filling gas temperature are the same. Now, the free balloon descents into warmer air. What statement is correct?
a) Descent force increases.
b) Descent force decreases.
c) Weight force increases.
d) Weight force decreases.
19. 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

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20. 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

21. A vertical speed indicator connected to a too big equalizing tank results in...

- a) Mechanical overload
- b) No indication
- c) Indication too low
- d) Indication too high

22. 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

23. How may passengers assist the balloon pilot during landing preparation?

- a) By activating the emergency opening
- b) By stowing of loose parts
- c) By activating the vents
- d) By activating the pull rope

24. Aerostatic lift, amongst other factors, depends on...

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

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25. Regarding the communication model, how can the use of the same code during radio communication be ensured?

- a) By the use of proper headsets
- b) By a particular frequency allocation
- c) By the use of radio phraseology
- d) By using radios certified for aviation use only

26. What is the relationship between pressure and volume of a dry gas at constant temperature?

- a) The volume increases by a factor of 4 with double pressure
- b) The volume is inversely proportional to pressure
- c) The ration between pressure and volume is constant
- d) The volume increases proportional with pressure

27. A flight level is a...

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

28. 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

29. 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 eustachien tube is blocked
- d) All windows are completely closed

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30. The altimeter is switched from local QNH to 1013.25 hPa...

a)	When	climbing	above	the	transition	altitude
α_{I}	V V I I C I I	CHILIDHIA	above	uic	แผมงแบบ	ailituuc.

- b) At 4000 ft.
- c) At the decision height.
- d) When descending below FL 100.

31. Above the friction layer, with a prevailing pressure gradient, the wind direction is...

- a) At an angle of 30° to the isobars towards low pressure.
- b) Perpendicular to the isobars.
- c) Parallel to the isobars.
- d) Perpendicular to the isohypses.

32. At which altitude is the atmospheric pressure approximately half the MSL value (1013 hPa)?

- a) 5000 ft
- b) 18000 ft
- c) 22000 ft
- d) 10000 ft

33. Which of the following options states a correct position report?

- a) DEABC over "N" in FL 2500 ft
- b) DEABC over "N" at 35
- c) DEABC, "N", 2500 ft
- d) DEABC reaching "N"

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

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

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35. A wind shear is...

 a) A slow increase of the wind speed in altitudes above 	13000 ft
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- 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.

36. The correct transponder code for emergencies is.	36.	. The correct	transponder	code for	emergencies is
--	-----	---------------	-------------	----------	----------------

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

37. What process causes latent heat being released into the upper troposphere?

- a) Descending air across widespread areas
- b) Cloud forming due to condensation
- c) Evaporation over widespread water areas
- d) Stabilisation of inflowing air masses

38. What is the distance between the parallels of latitude 48°N and 49°N along a meridian line?

- a) 10 NM
- b) 111 NM
- c) 60 NM
- d) 1 NM

39. Clouds in high layers are referred to as...

- a) Strato-
- b) Alto-.
- c) Cirro-.
- d) Nimbo-.

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40. What clouds and weather may result from an humid and instable air mass, that is pushed against a chain of mountains by the predominant wind and forced to rise?

- a) Embedded CB with thunderstorms and showers of hail and/or rain.
- b) Overcast low stratus (high fog) with no precipitation.
- c) Smooth, unstructured NS cloud with light drizzle or snow (during winter).
- d) Thin Altostratus and Cirrostratus clouds with light and steady precipitation.

41. What ground features should preferrably be used for orientation during visual flight?

- a) Power lines
- b) Rivers, railroads, highways
- c) Border lines
- d) Farm tracks and creeks

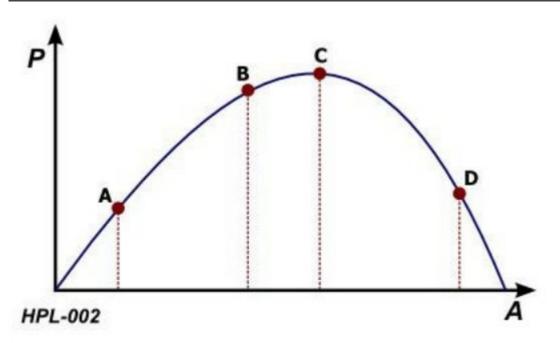
42. Visual illusions are mostly caused by...

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

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43. 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

44. 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

45. Carbon monoxide poisoning can be caused by...

- a) Unhealthy food
- b) Alcohol.
- c) Smoking.
- d) Little sleep.

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46. 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)

- \	4	/-	
a)	1	m/s	١

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

47. A vertical speed indicator measures the difference between...

- a) Instantaneous total pressure and previous total pressure.
- b) Total pressure and static pressure
- c) Dynamic pressure and total pressure.
- d) Instantaneous static pressure and previous static pressure.

48. What has to be expected by the balloon pilot during descent in deeply cooled layers close to the ground?

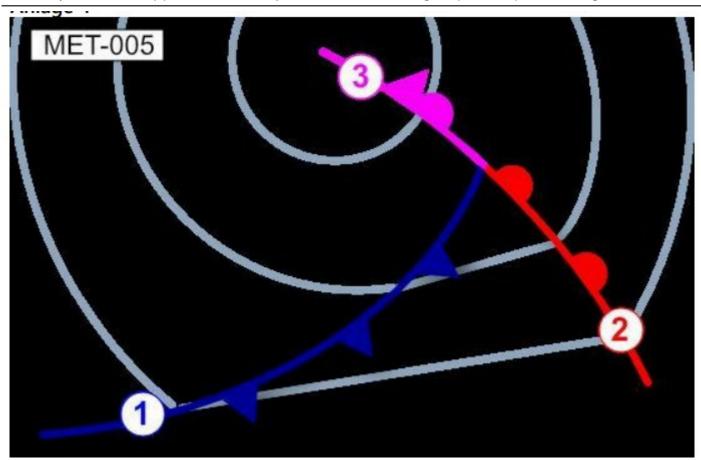
- a) Floating on top of the cold air layer.
- b) Sudden change in airspeed.
- c) Balloon starts to climb.
- d) Increasing descent while entering to ground layers

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49. The symbol labeled (2) as shown in the picture is a / an... See figure (MET-005) Siehe Anlage 4



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

50. At what rate does the temperature change with increasing height according to ISA (ICAO Standard Atmosphere) within the troposphere?

- a) Increases by 2° C / 1000 ft
- b) Decreases by 2° C / 100 m
- c) Decreases by 2° C / 1000 ft
- d) Increases by 2° C / 100 m

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51. 5500 m equal	
------------------	--

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

52. 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.

53. 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

54. What is the minimum flight visibility in airspace "C" at and above FL 100 for an aircraft operating under VFR?

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

55. Which are the official basic units for horizontal distances used in aeronautical navigation and their abbreviations?

- a) Feet (ft), inches (in)
- b) Yards (yd), meters (m)
- c) Nautical miles (NM), kilometers (km)
- d) Land miles (SM), sea miles (NM)

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56. 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?

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

57. 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

58. Given: TC: 183°; WCA: +011°; MH: 198°; CH: 200° What are the TH and the DEV? (2,00 P.)

a) TH: 194°. DEV: +002

b) TH: 172°. DEV: +002°.

c) TH: 172°. DEV: -002°

d) TH: 194°. DEV: -002°.

59. 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

60. 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.

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61. What information can be obtained from satallite images?

- a) Flight visibility, ground visibility, and ground contact
- b) Overview of cloud covers and front lines
- c) Turbulence and icing
- d) Temperature and dew point of environmental air

62. 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

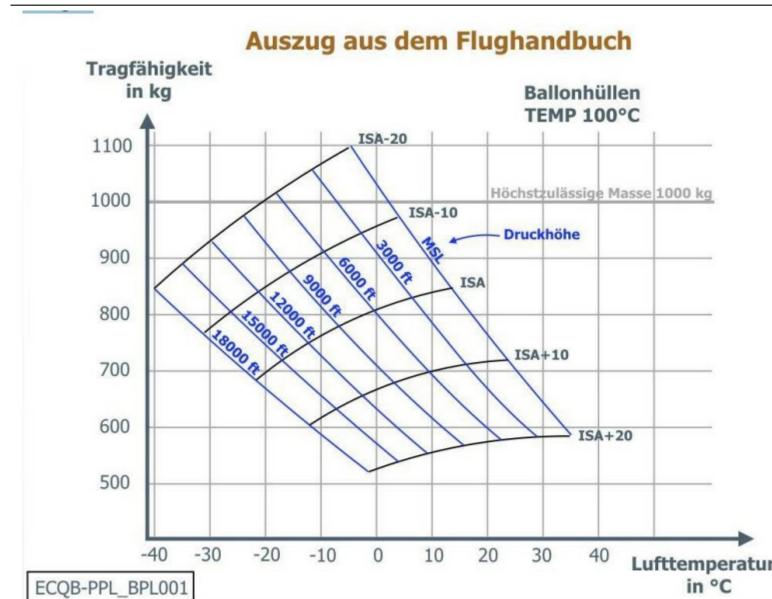
63. Clouds are basically distinguished by what types?

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

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64. Given the following masses: Empty mass 240 kg Instruments 20 kg per gas container (full): 30 kg per person: 80 kg 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
- c) 13000 ft
- d) 7000 ft

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	65.	Which approximate,	geometrical form	describes the shap	e of the Earth bes	t for navigation sys	tems
--	-----	--------------------	------------------	--------------------	--------------------	----------------------	------

a) Sphere of ecliptical shape		

- b) Ellipsoid
- c) Flat plate
- d) Perfect sphere

66. 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.

67. What does the abbreviation "FIS" stand for?

- a) Flashing information service
- b) Flight information system
- c) Flashing information system
- d) Flight information service

68. The pressure at MSL in ISA conditions is...

- a) 1013.25 hPa.
- b) 113.25 hPa
- c) 1123 hPa.
- d) 15 hPa.

69. 1000 ft equal...

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

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70. 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

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

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