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STUDENT NAME:	DATE AND TIME:

01. Along with other gliders, you are circling in a thermal updraft. Who determines the direction of circling?

- a) Circling is general to the left
- b) The glider who entered the updraft at first
- c) The glider with greatest bank angle
- d) The glider at highest altitude

02. What are the minimum distances to clouds for a VFR flight in airspace "B"?

- a) Horizontally 1.500 m, vertically 300 m
- b) Horizontally 1.500 m, vertically 1.000 m
- c) Horizontally 1.000 m, vertically 300 m
- d) Horizontally 1.000 m, vertically 1.500 ft

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

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

04. Two aeroplanes are flying on crossing tracks. Which one has to divert?

- a) Both have to divert to the lef
- b) The aircraft which flies from left to right has the right of priority
- c) Both have to divert to the right
- d) The aircraft which flies from right to left has the right of priority

05. 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) They help to continue the flight when flight visibility drops below VFR minima
- c) To mark the next available en-route airport during the flight
- d) To visualize the range limitation from the departure aerodrome

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06. Which are the advantages of sandwich structures?

- a) Low weight, high stiffness, high stability, and high strength
- b) High temperature durability and low weight
- c) High strength and good formability
- d) Good formability and high temperature durability

07. 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 high. This may lead to much closer proximity to the ground than intended
- b) 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
- c) 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
- d) 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

08. What is the minimum flight visibility in airspace "C" for an aircraft operating under VFR at FL110?

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

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

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

10. How are rhumb lines and great circles depicted on a direct Mercator chart?

a) Rhumb lines: straight lines Great circles: curved lines

b) Rhumb lines: straight lines Great circles: straight lines

c) Rhumb lines: curved lines Great circles: straight lines

d) Rhumb lines: curved lines Great circles: curved lines

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11. What is the subject of ICAO Annex 1?

- a) Flight crew licensing
- b) Air traffic services
- c) Rules of the air
- d) Operation of aircraft

12. What is indicated by a pattern of longitudinal stripes of uniform dimensions disposed symmetrically about the centerline of a runway?

- a) At this point the glide path of an ILS hits the runway
- b) Do not touch down before them
- c) Do not touch down behind them
- d) A ground roll could be started from this position

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

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

14. With Central European Time (CET) given as UTC+1, what UTC time corresponds to 1700 CET?

- a) 1500 UTC.
- b) 1700 UTC.
- c) 1800 UTC.
- d) 1600 UTC.

15. A flight level is a...

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

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16. Being intercepted by a military aircraft at daytime, what is the meaning of the following signal: A sudden heading change of 90 degrees or more and a pull-up of the aircraft without crossing the track of the intercepted aircraft?

aircraft?
a) Follow me, i will bring you to the next suitable airfield
b) You may continue your flight
c) Prepare for a safety landing, you have entered a prohibited area
d) You are entering a restricted area, leave the airspace immediately
17. An aircraft is following a true course (TC) of 040° at a constant true airspeed (TAS) of 180 kt. The wind vector i 350°/30 kt. The wind correction angle (WCA) equals
a) 7° left.
b) 7° right.
c) 3° right.
d) 3° left.
18. What weather conditions can be expected in high pressure areas during summer?
a) Calm weather and cloud dissipation, few high Cu
b) Changing weather with passing of frontal lines
c) Squall lines and thunderstorms
d) Calm winds and widespread areas with high fog
40. What is the minimum (links in it life in aircreas #0# at an Labour El 400 for an aircreft annualism which VEDO
19. What is the minimum flight visibility in airspace "C" at and above FL 100 for an aircraft operating under VFR?
a) 1.5 km b) 10 km
c) 5 km
d) 8 km
20. Which distances to clouds have to be maintained during a VFR flight in airpaces C, D and E?
a) 1500 m horizontally, 1000 ft vertically
b) 1000 m horizontally, 1500 ft vertically

c) 1000 m horizontally, 300 m verticallyd) 1500 m horizontally, 1000 m vertically

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21. What distance can be covered during a glide in a glider plane with glide ratio 1/30 from a height of 1500 m? (Neglect wind and thermal effects)

- a) 30 km
- b) 45 NM
- c) 45 km
- d) 81 NM

22. What is the meaning of the red range on the airspeed indicator?

- a) Speed which must not be exceeded regardless of circumstances
- b) Speed which must not be exceeded within bumpy air
- c) Speed which must not be exceeded with flaps extended
- d) Speed which must not be exceeded in turns with more than 45° bank

23. After reaching what height during winch launch the maximum pitch position can be taken?

- a) From approx. 50 m while maintaining a save speed for winch launch.
- b) From 15 m while reaching a speed of at least 90 km/h
- c) From 150 m or higher, when in case of cable break landing straight ahead is no longer possible
- d) Shortly after lift-off, provided a sufficiently strong headwind

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

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

25. Urgency 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 operation or maintenance of facilities essential for the safety or regularity of aircraft operation.
- d) Concerning the operation or maintenance of facilities essential for the safety or regularity of aircraft operation.

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

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

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

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

28. The sandwich structure consists of two...

- a) Thick layers and a light core material.
- b) Thick layers and a heavy core material.
- c) Thin layers and a light core material.
- d) Thin layers and a heavy core material

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

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

30. During a cross-country flight, you approach a downwind turning point. The point should be taken ... (2,00 P.)

- a) As low as possible.
- b) As steep as possible.
- c) As high as possible.
- d) With as less bank as possible

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31. Which of the following is NOT a risk factor for hypoxia?

- a) Blood donation
- b) Smoking
- c) Menstruation
- d) Diving

32. In case of a cable break during winch launch, what actions should be taken in the correct order?

- a) Decouple cable, therafter push nose down; at heights up to 150m GND land straight ahead with increased speed
- b) Push firmly nose down, decouple cable, depending on terrain and wind decide for short pattern or landing straight ahead
- c) Initiate 180° turn and land opposite to runway heading in use, decouple cable before touch down
- d) Keep elevetor pulled, stabilize on minimum speed and land on remaining field length

33. What is a cause for the dip error on the direct-reading compass?

- a) Acceleration of the airplane
- b) Temperature variations
- c) Deviation in the cockpit
- d) Inclination of earth's magnetic field lines

34. After getting around a turning point, what should a glider pilot be prepared for? (2,00 P.)

- a) For weakening thermals due to the progressing time
- b) For a changed horizontal picture due to lower cloud bases
- c) For increased cloud dissipation due to the progressing time
- d) For a changed cloud picture due to the apparently changed position of the sun

35. Which of the following qualities are influenced by stress? 1. Attention 2. Concentration 3. Responsiveness 4. Memory

- a) .1, 2, 3
- b) .2, 4
- c) 1
- d) 1, 2, 3, 4

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36. What does the abbreviation "H24" stand for?

- a) No specific opening times
- b) 24 h service
- c) Sunrise to sunset
- d) Sunset to sunrise

37. How do lift and drag change when approaching a stall condition?

- a) Lift decreases and drag increases
- b) Lift and drag increase
- c) Lift increases and drag decreases
- d) Lift and drag decrease

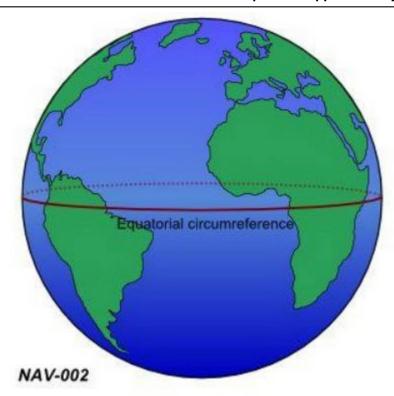
38. The center of gravity (CG) defines...

- a) The product of mass and balance arm
- b) The point on the longitudinal axis or its extension from which the centers of gravity of all masses are referenced.
- c) The point on the longitudinal axis or its extension from which the centers of gravity of all masses are referenced.
- d) The point through which the force of gravity is said to act on a mass.

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39. The circumference of the Earth at the equator is approximately... See figure (NAV-002) Siehe Anlage 1



- a) 10800 km.
- b) 12800 km.
- c) 21600 NM.
- d) 40000 NM.

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40. (For this question, please use annex PFP-062) According ICAO, what symbol indicates a civil airport (not international airport) with paved runway? (2,00 P.) Siehe Anlage 5











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

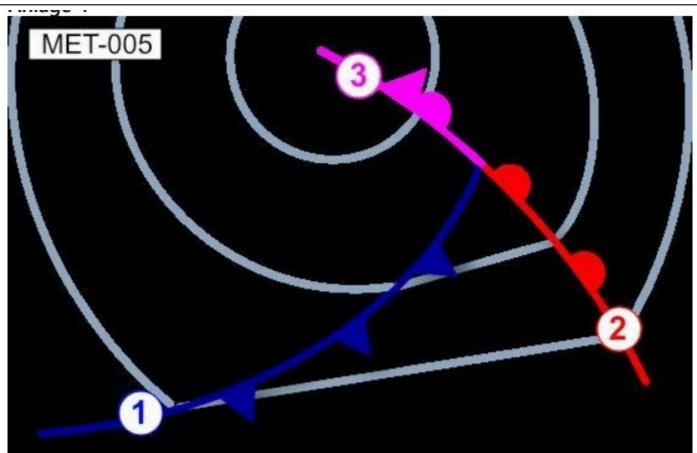
41. During thermal soaring, another sailplane is following close by. What should be done to avoid a collision?

- a) You reduce speed to let the other sailplane fly by
- b) You reduce bank to achieve a larger turn radius
- c) You increase bank to be better seen from the other sailplane
- d) You increase speed to achieve a position opposite in the circle

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42. The symbol labeled (3) as shown in the picture is a / an... See figure (MET-005) Siehe Anlage 4



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

43. The glide ratio of a sailplane can be improved by which measures?

- a) Higher airplane mass, thin airfoil, taped gaps between wing and fuselage
- b) Lower airplane mass, correct speed, retractable gear
- c) Cleaning, correct speed, retractable gear, taped gaps between wing and fuselage
- d) Forward C.G. position, correct speed, taped gaps between wing and fuselage

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44. During slope soaring you have the hill to your left side, another glider is approaching from the opposite side at the same altitude. How do you react?

- a) You divert to the right
- b) You expect the opposite glider to divert
- c) You divert to the right and expect the opposite glider to do the same
- d) You pull on the elevator and divert upward

45. In which situations should a pilot use blind transmissions?

- a) When a pilot has flown into cloud or fog unintentionally and therefore would like to request navigational assistance from a ground unit
- b) When the traffic situation at an airport allows the transmission of information which does not need to be acknowledged by the ground station
- 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 a transmission containing important navigational or technical information is to be sent to several stations at the same time

46. What is the call sign of the aerodrome control?

- a) Ground
- b) Control
- c) Tower
- d) Airfield

47. What frontal line divides subtropical air from polar cold air, in particular across Central Europe?

- a) Warm front
- b) Cold front
- c) Occlusion
- d) Polar front

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

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

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49. 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

50. Which area could be crossed with certain restrictions?

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

51. Which transponder code indicates a radio failure?

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

52. 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) Veering wind during passage of the warm front, veering 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) Backing wind during passage of the warm front, backing wind during passage of the cold front

53. Which answer contains every state of water found in the atmosphere?

- a) Liquid, solid, and gaseous
- b) Liquid
- c) Gaseous and liquid
- d) Liquid and solid

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54. During airtow, the gliding plane exceeds its maximum permissable speed. What action should be taken by the glider pilot?

- a) Extend spoiler flaps
- b) Message to airfield controller via radio
- c) Pull elevator to reduce speed
- d) Decouple cable immediately

55. The altimeter can be checked on the ground by setting...

- a) QFF and comparing the indication with the airfield elevation.
- b) QFE and comparing the indication with the airfield elevation.
- c) QNH and comparing the indication with the airfield elevation.
- d) QNE and checking that the indication shows zero on the ground.

56. What information is NOT found on Low-Level Significant Weather Charts (LLSWC)?

- a) Information about icing conditions
- b) Front lines and frontal displacements
- c) Radar echos of precipitation
- d) Information about turbulence areas

57. During airtow, the towing plane disappears from the glider pilot's sight. What action should be taken by the glider pilot?

- a) Decouple cable immediatly
- b) Alternate push and pull on the elveator
- c) Alternate turn to the left and to the right
- d) Extend spoiler flaps and return to normal attitude

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

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

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59. Given: TC: 183°; WCA: +011°; MH: 198°; CH: 200° What are the TH and the DEV? (2

a) TH: 172°. DEV: +002°.

b) TH: 172°. DEV: -002°.

c) TH: 194°. DEV: -002°.

d) TH: 194°. DEV: +002°.

60. At stationary glide and the same mass, what is the difference when using a thick airfoild instead of a thinner airfoil?

- a) More drag, same lift
- b) Less drag, less lift
- c) More drag, less lift
- d) Less drag, same lift

61. Which type of ice forms by very small water droplets and ice crystals hitting the front surfaces of an aircraft?

- a) Rime ice
- b) Clear ice
- c) Mixed ice
- d) Hoar frost

62. What weather is likely to be experienced during "Foehn" in the Bavarian area close to the alps?

- a) Cold, humid downhill wind on the lee side of the alps, flat pressure pattern
- b) Nimbostratus cloud in the southern alps, rotor clouds at the lee side, warm and dry wind
- c) High pressure area overhead Biskaya and low pressure area in Eastern Europe
- d) Nimbostratus cloud in the northern alps, rotor clouds at the windward side, warm and dry wind

63. What is necessary for the determination of speed (IAS) by the airspeed indicator?

- a) The difference between the total pressure and the dynamic pressure
- b) The difference between the dynamic pressure and the static pressure
- c) The difference between the standard pressure and the total pressure
- d) The difference betweeen the total pressure and the static presssure

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64. The term "moment" with regard to a mass and balance calculation is referred to as...

- a) Sum of a mass and a balance arm.
- b) Difference of a mass and a balance arm.
- c) Quotient of a mass and a balance arm.
- d) Product of a mass and a balance arm.

65. Which section of the flight manual describes the basic empty mass of an aircraft?

- a) Limitations
- b) Normal procedures
- c) Weight and balance
- d) Performance

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

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

67. What situation is called "over-development" in a weather report?

- a) Change from blue thermals to cloudy thermals during the afternoon
- b) Development of a thermal low to a storm depression
- c) Vertical development of Cumulus clouds to rain showers
- d) Widespreading of Cumulus clouds below an inversion layer

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

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

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69. What does a readability of 2 indicate?

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

70. A wind shear is...

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

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

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

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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:
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37:	38:	39:	40:
41:	42:	43:	44:
45:	46:	47:	48:
49:	50:	51:	52:
53:	54:	55:	56:
57:	58:	59:	60:
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65:	66:	67:	68:
69:	70:		