Examination Center DGAC

Examination Date _____

Name _____

Firstname _____

Birthday _____

1 METAR HKEL 0430Z 30010 KT 4000 RA SCT010 CB
BKN025 BKN070 20 /19 Q 1018 RETS NOSIG

The present weather at station in the METAR is (1.00 P.)

[A] Moderate rain.

[B] Heavy rain.

[C] Rain showers from scattered CB clouds.

[D] Light rain.

2 METAR HKEL 0430Z 30010 KT 4000 RA SCT010 CB
BKN025 BKN070 20 /19 Q 1018 RETS NOSIG

Under the prevailing meteorological conditions, the flight operations in the Eldoret control zone is (1.00 P.)

[A] Zone QBO with all flights allowed

[B] Zone QBI with only IFR flights permitted.

[C] Zone QBI with special VFR permitted.

[D] Zone QBI with controlled VFR allowed.

3 METAR HKEL 0430Z 30010 KT 4000 RA SCT010 CB
BKN025 BKN070 20 /19 Q 1018 RETS NOSIG

Which of the following gives the most probable condition on reported clouds? (1.00 P.)

[A] There are some 5 oktas of nimbostratus clouds at 7000 ft

[B] There are some 6 oktas of altocumulus at 7000 ft

[C] There are at least 6 oktas of stratocumulus clouds at 7000 ft

[D] There are 5 oktas of scattered cumulonimbus clouds at 1000 ft

4 How does the height of the tropopause normally vary with latitude in the northern hemisphere? (1.00 P.)

[A] It remains constant from north to south.

[B] It increases from south to north.

[C] It decreases from south to north.

[D] It remains constant throughout the year.

5 What, approximately, is the average height of the tropopause over the equator ? (1.00 P.)

[A] 11 km

[B] 16 km

[C] 8 km

[D] 40 km

6 METAR HKEL 0430Z 30010 KT 4000 RA SCT010 CB
BKN025 BKN070 20 /19 Q 1018 RETS NOSIG

The reported visibility and temperature respectively in this METAR are
(1.00 P.)

[A] 3000 m and 010° C

[B] 0430 m and 10° C

[C] 4000 m and 10° C

[D] 4 km and 20° C

7 In which layer is most of the atmospheric humidity concentrated ? (1.00 P.)

[A] Tropopause.

[B] Stratopause.

[C] Stratosphere.

[D] Troposphere.

8 METAR HKEL 0430Z 30010 KT 4000 RA SCT010 CB
BKN025 BKN070 20 /19 Q 1018 RETS NOSIG

According to this METAR (1.00 P.)

[A] There is no significant weather change expected in the next two hours.

[B] There is no significant weather during the validity period of the METAR

[C] There is no significant weather change expected in the next one hour

[D] There is no significant weather change expected until after the next one hour.

9 TAF HKNW 030415 Z 0515 24005 KT 8000 DZRA BKN004 OVC080 TEMPO 0608 6000M BKN010 +RA GRADU 1012 15010 KT 9999 SCT006 BKN020 RAPID 1415 22010 G 25 KT 5000M +TSSH BKN009 CB

The above forecast is valid between
(1.00 P.)

[A] 0500 and 1500 Z

[B] 0400 and 1500 Z

[C] 0415 Z on 3RD to 0515 Z the next day

[D] 0515 and 1415 Z

10 At FL 180, the air temperature is -35°C.The air density at this level is: (1.00 P.)

[A] Unable to be determined without knowing the QNH.

[B] Greater than the density of the ISA at FL 180.

[C] Equal to the density of the ISA at FL 180.

[D] Less than the density of the ISA at FL 180.

11 TAF HKNW 030415 Z 0515 24005 KT 8000 DZRA BKN004 OVC080 TEMPO 0608 6000M BKN010 +RA GRADU 1012 15010 KT 9999 SCT006 BKN020 RAPID 1415 22010 G 25 KT 5000M +TSSH BKN009 CB

The forecast visibility at 1230 Z is
(1.00 P.)

[A] better than 10 km

[B] 6000 metres

[C] 9999 metres

[D] 8000 metres

12 TAF HKNW 030415 Z 0515 24005 KT 8000 DZRA BKN004 OVC080 TEMPO 0608 6000M BKN010 +RA GRADU 1012 15010 KT 9999 SCT006 BKN020 RAPID 1415 22010 G 25 KT 5000M +TSSH BKN009 CB

At which of the following times may a VFR flight be allowed to enter and land at the airport? (1.00 P.)

[A] 0709 Z.

[B] 1030 Z.

[C] 0600 Z .

[D] None of the above.

13 TAF HKNW 030415 Z 0515 24005 KT 8000 DZRA BKN004 OVC080 TEMPO 0608 6000M BKN010 +RA GRADU 1012 15010 KT 9999 SCT006 BKN020 RAPID 1415 22010 G 25 KT 5000M +TSSH BKN009 CB

On arriving at the station at 1330 Z one would expect to find (1.00 P.)

[A] Visibility of 9000 metres in heavy rain

[B] Reduced visibility in rain or drizzle

[C] Visibility of 5000 metres in thunderstorms and showers

[D] Visibility of 10 km or more and no precipitation

14 TAF HKNW 030415 Z 0515 24005 KT 8000 DZRA BKN004 OVC080 TEMPO 0608 6000M BKN010 +RA GRADU 1012 15010 KT 9999 SCT006 BKN020 RAPID 1415 22010 G 25 KT 5000M +TSSH BKN009 CB

The forecast weather at 0730 Z is (1.00 P.)

[A] Additional light rain.

[B] No forecast is given for 0700 Z.

[C] Drizzle and rain.

[D] Heavy rain.

15 Under what condition does pressure altitude have the same value as density altitude ? (1.00 P.)

[A] At standard temperature.

[B] At sea level when the temperature is 0°C.

[C] When the altimeter has no position error.

[D] When the altimeter setting is 1013.2 hPa.

16 TAF HKNW 030415 Z 0515 24005 KT 8000 DZRA BKN004 OVC080 TEMPO 0608 6000M BKN010 +RA GRADU 1012 15010 KT 9999 SCT006 BKN020 RAPID 1415 22010 G 25 KT 5000M +TSSH BKN009 CB

Which predominant cloud type would you expect at 0600 Z (1.00 P.)

[A] Cumulonimbus

[B] Stratocumulus

[C] Towering cumulus

[D] Nimbostratus

17 What is the boundary layer between troposphere and stratosphere called? (1.00 P.)

[A] Atmosphere.

[B] Tropopause.

[C] Stratosphere.

[D] Ionosphere.

18 Between mean sea level and a height of 20 km, the lowest temperature in the ICAO Standard Atmosphere (ISA) is: (1.00 P.)

[A] -273°C

[B] -44.7°C

[C] -100°C

[D] -56.5°C

19 Which weather condition lowers true altitude as compared to pressure altitude to a position where flight over mountains could be dangerous? (1.00 P.)

[A] Cold high.

[B] Warm depression.

[C] Warm high.

[D] Cold low.

20 Which of the following cloud types can project up into the stratosphere? (1.00 P.)

[A] Cirrostratus

[B] Altocumulus

[C] Altostratus

[D] Cumulonimbus

21 A vertical spacing of 1000 FT is the standard required separation between two FL. Under conditions of cold air advection (ISA -15°C), what would the true vertical separation be? (1.00 P.)

[A] Less than 1000 FT

[B] It remains 1000 FT

[C] Without QNH information, it can not be determined

[D] More than 1000 FT

22 At which pressure and temperature conditions may you safely assume that the minimum usable flight level at least lies at the same height, as the minimum safe altitude? (1.00 P.)

[A] In a very cold area with a QNH of 1015 hPa

[B] At a temperature less than or equal to that of the ISA and where the QNH is less than 1013.25 hPa

[C] At a temperature greater than or equal to that of the ISA and where the QNH is greater than or equal to 1013.25 hPa

[D] In a cold low pressure region

23 In the troposphere the decrease of pressure per 100 m increase in height (1.00 P.)

[A] is greater at higher levels than at lower levels.

[B] is in the order of 27 hPa near MSL.

[C] remains constant at all levels.

[D] is smaller at higher levels than at lower levels.

24 What is a trend forecast? (1.00 P.)

[A] A landing forecast appended to METAR/SPECI, valid for 2 hours

[B] A route forecast valid for 24 hours

[C] An aerodrome forecast valid for 9 hours

[D] A routine report

25 What does the expression "Broken (BKN)" mean? (1.00 P.)

[A] 3-5 Eights of the sky is cloud covered

[B] Nil significant cloud cover

[C] 3-4 Eights of the sky is cloud covered

[D] 5-7 Eights of the sky is cloud covered

26 What does the abbreviation "nosig" mean? (1.00 P.)

[A] No significant changes

[B] No report received

[C] No weather related problems

[D] Not signed by the meteorologist

27 Which FL corresponds with the 200 hPa pressure level ? (1.00 P.)

[A] FL 300.

[B] FL 390.

[C] FL 100.

[D] FL 50.

28 In which of the following 1850 UTC METAR reports, is the probability of fog formation, in the coming night, the highest? (1.00 P.)

[A] 22004KT 6000 -RA SCT012 OVC030 17/14 Q1009 NOSIG =

[B] VRB02KT 2500 HZ SCT120 14/M08 Q1035 NOSIG =

[C] VRB01KT 8000 SCT250 11/10 Q1028 BECMG 3000 BR =

[D] 00000KT 9999 SCT300 21/01 Q1032 NOSIG =

29 The QNH of an airport at sea level is 983 hPa and the temperature deviation from ISA is -15°C below FL 100.
What is the true altitude of FL 100? (1.00 P.)

[A] 8590 FT.

[B] 10210 FT.

[C] 9790 FT.

[D] 11410 FT.

30 What information is required to convert a minimum safe altitude into a lowest usable flight level? (1.00 P.)

[A] Highest value of QNH and the highest negative temperature deviation from ISA.

[B] Lowest value of QNH and the highest negative temperature deviation from ISA.

[C] Highest value of QNH and the highest positive temperature deviation from ISA

[D] Lowest value of QNH and the lowest negative temperature deviation from ISA

31 What is the relationship, if any, between QFE and QNH at an airport situated 50 FT below sea level? (1.00 P.)

[A] QFE is smaller than QNH.

[B] QFE equals QNH.

[C] QFE is greater than QNH.

[D] No clear relationship exists.

32 You plan a flight over a mountain range at a true altitude of 15000 FT/AMSL. The air is on an average 15°C colder than ISA, the pressure at sea level is 1003 hPa. What approximate indication should the altimeter (setting 1013.2 hPa) read? (1.00 P.)

[A] 13830 FT.

[B] 16230 FT.

[C] 14370 FT.

[D] 15690 FT.

33 In order to calculate QFE from QNH, which of the following must be known ? (1.00 P.)

[A] Elevation of the airfield.

[B] Temperature at the airfield.

[C] Elevation of the airfield and the temperature at MSL.

[D] Elevation and the temperature at the airfield.

34 An aircraft lands at an airport (airport elevation 1240 FT, QNH 1008 hPa). The altimeter is set to 1013 hPa. The altimeter will indicate: (1.00 P.)

[A] 1105 FT.

[B] 1200 FT.

[C] 1280 FT.

[D] 1375 FT.

35 After landing at an aerodrome (aerodrome elevation 1715 FT), the altimeter indicates an altitude of 1310 FT. The altimeter is set to the pressure value of 1013 hPa. What is the QNH at this aerodrome? (1.00 P.)

[A] 1028 hPa.

[B] 1013 hPa.

[C] 998 hPa.

[D] 1015 hPa.

36 You are flying at FL 130, and your true altitude is 12000 FT. What is the temperature deviation from that of the standard atmosphere at FL 130 (QNH 1013,2 hPa) ? (1.00 P.)

[A] ISA -20°C

[B] ISA +12°C

[C] ISA +20°C

[D] ISA +/-0°C

37 What is the dry adiabatic lapse rate ? (1.00 P.)

[A] 1.5°C/1000 FT

[B] 3.0°C/1000 FT

[C] 3.5°C/1000 FT

[D] 2.0°C/1000 FT

38 Half the mass of the atmosphere is found in the first (1.00 P.)

[A] 11 km

[B] 8 km

[C] 5 km

[D] 3 km

39 What pressure is defined as QFE? (1.00 P.)

[A] The pressure reduced to sea level using actual temperatures

[B] The pressure at field elevation

[C] The pressure reduced to sea level using ISA temperatures

[D] The pressure of the altimeter

40 A layer is conditionally unstable if the air (1.00 P.)

[A] is unstable for saturated air as well as for dry air.

[B] is stable for saturated air and unstable for dry air.

[C] is unstable for saturated air and stable for dry air.

[D] becomes stable by lifting it.

41 What is the approximate composition of the dry air by volume in the troposphere ? (1.00 P.)

[A] 88 % oxygen, 9 % nitrogen, and the rest other gasses

[B] 10 % oxygen, 89 % nitrogen, and the rest other gasses

[C] 21 % oxygen, 78 % nitrogen, and the rest other gasses

[D] 50 % oxygen, 40 % nitrogen, and the rest other gasses

42 Which of the following conditions would cause the altimeter to indicate a lower altitude than that actually flown ? (1.00 P.)

[A] Pressure altitude the same as indicated altitude.

[B] Atmospheric pressure lower than standard

[C] Air temperature higher than standard

[D] Air temperature lower than standard.

43 Which layer of the atmosphere contains more than 90 per cent of all water vapour? (1.00 P.)

[A] Upper stratosphere

[B] Ozone layer

[C] Troposphere

[D] Lower stratosphere

44 You are flying at FL 200. Outside air temperature is -40°C, and the pressure at sea level is 1033 hPa. What is the true altitude? (1.00 P.)

[A] 19340 feet

[B] 21740 feet

[C] 18260 feet

[D] 20660 feet

45 You are flying at FL 160. Outside air temperature is -27°C, and the pressure at sea level is 1003 hPa. What is the true altitude? (1.00 P.)

[A] 15630 feet

[B] 16370 feet

[C] 16910 feet

[D] 15090 feet

46 An aircraft lands at an airport (airport elevation 540 FT, QNH 993 hPa) with the altimeter set to 1013 hPa. What will it indicate ? (1.00 P.)

[A] 0 FT

[B] 380 FT

[C] 700 FT

[D] 1080 FT

47 What is the effect of a strong low level inversion ? (1.00 P.)

[A] It promotes extensive vertical movement of air.

[B] It results in good visual conditions near the surface.

[C] It prevents vertical wind shear.

[D] It promotes vertical wind shear.

48 After landing at an aerodrome (QNH 993 hPa) it is noticed that the altimeter is still set to 1013,2 hPa and that it reads 1200 feet. What is the elevation of the aerodrome above mean sea level ? (1.00 P.)

[A] 2280 feet.

[B] 1200 feet.

[C] 660 feet.

[D] 1740 feet.

49 What does the term SIGMET signify? (1.00 P.)

[A] A SIGMET is a flight forecast, issued by the meteorological station several times daily

[B] A SIGMET is a brief landing forecast added to the actual weather report

[C] A SIGMET is an actual weather report at an aerodrome and is generally issued at half-hourly intervals

[D] A SIGMET is a warning of dangerous meteorological conditions

50 The temperature at FL 140 is -12°C. What will the temperature be at FL 110 if the ICAO standard lapse rate is applied ? (1.00 P.)

[A] -6°C.

[B] -9°C.

[C] -15°C.

[D] -18°C.

51 What does the term TREND signify? (1.00 P.)

[A] It is the actual weather report at an aerodrome and is generally issued at half-hourly intervals

[B] It is a flight forecast, issued by the meteorological station several times daily

[C] It is a warning of dangerous meteorological conditions

[D] It is a landing forecast added to the actual weather report

52 Which of these four METAR reports suggests that a thunderstorm is likely in the next few hours? (1.00 P.)

[A] 201350Z 16004KT 8000 SCT110 OVC220 02/M02 Q1008 NOSIG =

[B] 201350Z 21005KT 9999 SCT040CB SCT100 26/18 Q1016 TEMPO 24018G30KT TS =

[C] 201350Z 34003KT 0800 SN VV002 M02/M04 Q1014 NOSIG =

[D] 201350Z 04012KT 3000 BR OVC012 04/03 Q1022 BECMG 6000 =

53 In which of the following METAR reports, is the probability of fog formation in the coming night the highest? (1.00 P.)

[A] 201850Z 15003KT 6000 SCT120 05/04 Q1032 BECMG 1600 BR =

[B] 201850Z 06018G30KT 5000-RA OVC010 04/01 Q1024 NOSIG =

[C] 201850Z 21003KT 8000 SCT250 12/m08 Q1028 NOSIG =

[D] 201850Z 25010KT 4000 RA BKN012 OVC030 12/10 Q1006 TEMPO 1500 =

54 Which of the following weather reports could be, in accordance with the regulations, abbreviated to "CAVOK"? (1.00 P.)

[A] 34004KT 7000 MIFG SCT260 09/08 Q1029 BECMG 1600 =

[B] 26012KT 8000 SHRA BKN025 16/12 Q1018 NOSIG =

[C] 27019G37KT 9999 BKN050 18/14 Q1016 NOSIG =

[D] 00000KT 0100 FG VV001 11/11 Q1025 BECMG 0500 =

55 In Kisumu, the local QNH is 994 hPa. The elevation of Kisumu is 1411 FT. The QFE adjustment in Kisumu is (1.00 P.)

[A] 961 hPa.

[B] 967 hPa.

[C] 942 hPa.

[D] 948 hPa.

56 An aircraft is flying at FL 80. The local QNH is 1000 hPa. After the second altimeter has been adjusted to the local QNH, the reading will be approximately (1.00 P.)

[A] 8000 FT.

[B] 7650 FT.

[C] 8600 FT.

[D] 8350 FT.

57 Which of the following is a common cause of ground or surface temperature inversion ? (1.00 P.)

[A] Warm air being lifted rapidly aloft, in the vicinity of mountainous terrain.

[B] Terrestrial radiation on a clear night with no or very light winds.

[C] The movement of colder air under warm air, or the movement of warm air over cold air.

[D] Heating of the air by subsidence

58 Going from the equator to the north pole, the altitude of the tropopause (1.00 P.)

[A] decreases and its temperature increases

[B] decreases and its temperature decreases

[C] increases and its temperature increases

[D] increases and its temperature decreases

59 The troposphere is the (1.00 P.)

[A] boundary between the mesosphere and thermosphere

[B] boundary between the stratosphere and the mesosphere

[C] part of the atmosphere above the stratosphere

[D] part of the atmosphere below the tropopause

60 At a certain position, the temperature on the 300 hPa chart is -48°C; according to the Significant Weather Chart, the tropopause is at FL 330. What is the most likely temperature at FL 350 ? (1.00 P.)

[A] -54°C.

[B] -56,5°C.

[C] -50°C.

[D] -58°C.

61 The tropopause is a level at which (1.00 P.)

[A] temperature ceases to fall with increasing height

[B] water vapour content is greatest

[C] vertical currents are strongest

[D] pressure remains constant

62 Which of the following statements is true ? (1.00 P.)

[A] QNH can be equal to QFE

[B] QNH is always equal to QFE

[C] QNH is always higher than QFE

[D] QNH is always lower than QFE

63 Which constant pressure altitude chart is standard for FL50? (1.00 P.)

[A] 850 hPa.

[B] 300 hPa.

[C] 700 hPa.

[D] 500 hPa.

64 Which statement is true ? (1.00 P.)

[A] QNH can be lower as well as higher than 1013.25 hPa

[B] QNH can be 1013.25 hPa only for a station at MSL

[C] QNH can not be 1013.25 hPa

[D] QNH is lower than 1013.25 hPa at any time

65 An outside air temperature of -35°C is measured while cruising at FL 200. What is the temperature deviation from the ISA at this level? (1.00 P.)

[A] 10°C colder than ISA.

[B] 5°C warmer than ISA.

[C] 5°C colder than ISA.

[D] 10°C warmer than ISA.

66 Convective activity over land in mid-latitudes is greatest in (1.00 P.)

[A] summer in the afternoon.

[B] summer during the night and early morning.

[C] winter during the night and early morning.

[D] winter in the afternoon.

67 When the subscale is set to the QNH of an airfield the pressure altimeter indicates (1.00 P.)

[A] elevation while landing only if conditions are as in the ICAO Standard Atmosphere

[B] zero while landing only if conditions are as in the ICAO Standard Atmosphere

[C] zero while landing

[D] elevation while landing

68 The troposphere (1.00 P.)

[A] is the separation layer between the stratosphere and atmosphere

[B] reaches the same height at all latitudes

[C] has a greater vertical extent above the equator than above the poles

[D] contains all oxygen of the stratosphere

69 Which of the following is a possible consequence of subsidence? (1.00 P.)

[A] An inversion over a large area with haze, mist.

[B] CB-clouds and thunderstorms over a large area.

[C] Clear air turbulence at higher altitudes .

[D] Wide spread NS and AS clouds and intense precipitation.

70 With all other quantities being constant, the density of the atmosphere increases with increasing (1.00 P.)

[A] stability

[B] temperature

[C] relative humidity

[D] air pressure

71 The polar front is the boundary between: (1.00 P.)

[A] arctic air and tropical air.

[B] arctic air and polar air.

[C] maritime polar air and continental polar air.

[D] polar air and tropical air.

72 What does dewpoint mean? (1.00 P.)

[A] The temperature to which a mass of air must be cooled in order to reach saturation.

[B] The freezing level (danger of icing).

[C] The temperature at which the relative humidity and saturation vapour pressure are the same.

[D] The temperature at which ice melts.

73 The visibility transmitted in a METAR is (1.00 P.)

[A] the maximum determined by a meteorologist in a 360° scan at the horizon.

[B] the lowest observed in a 360° scan from the meteorological station.

[C] given by transmissometer when the visibility is below 1500 metres.

[D] measured by an observer counting the number of lights visible on the runway.

74 In relation to the total weight of the atmosphere, the weight of the atmosphere between mean sea level and a height of 5500 m is (1.00 P.)

[A] 25%

[B] 99%

[C] 1%

[D] 50%

75 The TAF weather messages are (1.00 P.)

[A] airport forecasts

[B] landing forecasts of the "trend" type

[C] hourly or semi-hourly weather observations

[D] special weather observations

76 The relative humidity of a sample air mass is 50%. How is the relative humidity of this air mass influenced by changes of the amount of water vapour in it? (1.00 P.)

[A] It is not influenced by changing water vapour.

[B] It is only influenced by temperature.

[C] It decreases with increasing water vapour.

[D] It increases with increasing water vapour.

77 Relative humidity (1.00 P.)

[A] changes when water vapour is added, even though the temperature remains constant.

[B] is not affected by temperature changes of the air.

[C] is not affected when air is ascending or descending.

[D] does not change when water vapour is added provided the temperature of the air remains constant.

78 In a METAR message, BR and HZ mean respectively: (1.00 P.)

[A] BR = mist HZ = widespread dust

[B] BR = mist HZ = haze

[C] BR = mist HZ = smoke

[D] BR = fog HZ = haze

79 How, if at all, is the relative humidity of an unsaturated air mass influenced by temperature changes? (1.00 P.)

[A] It is only influenced by the amount of water vapour.

[B] It increases with increasing temperature.

[C] It decreases with increasing temperature.

[D] It is not influenced by temperature changes.

80 In a METAR message, the wind group is 23010KT. This means: (1.00 P.)

[A] Wind from 230° magnetic at 20 knots

[B] Wind from 230° magnetic at 10 miles per hour

[C] Wind from 230° true at 20 knots

[D] Wind from 230° true at 10 miles per hour

81 How does relative humidity and the dewpoint in an unsaturated air mass change with varying temperature? (1.00 P.)

[A] When temperature decreases, the relative humidity and the dewpoint remain constant.

[B] When temperature increases, the relative humidity decreases, and the dewpoint remains constant.

[C] When temperature decreases, the relative humidity decreases, and the dewpoint increases.

[D] When temperature increases, the relative humidity increases, and the dewpoint decreases.

82 Refer to the following TAF message.

HKML 180800Z 180918 22020KT 6000 SCT015 SCT080 BECMG 1214 24025KT 2000 RA BKN009 OVC070=

At 1400 UTC, the lowest cloud base will be (1.00 P.)

[A] between 900 and 1500 feet AGL

[B] between 900 and 1500 feet AMSL

[C] at 1500 feet AGL

[D] at 900 feet AGL

83 A METAR message is valid (1.00 P.)

[A] for the hour following the observation

[B] at the time of observation

[C] for 9 hours

[D] for 2 hours

84 When a given mass of air descends, what effect will it have on relative humidity? (1.00 P.)

[A] It decreases.

[B] It increases up to 100%, then remains stable.

[C] It increases.

[D] It remains constant.

85 During the late afternoon an air temperature of +12°C and a dew point of +5°C were measured. What temperature change must at least occur during the night in order to induce saturation? (1.00 P.)

[A] It must decrease to +5°C.

[B] It must decrease to +7°C.

[C] It must decrease by 5°C.

[D] It must decrease to +6°C.

86 Which of the following changes of state is known as sublimation (in meteorology)? (1.00 P.)

[A] Liquid direct to vapour

[B] Solid direct to vapour

[C] Solid direct to liquid

[D] Liquid direct to solid

87 Clouds, fog or dew will always be formed when: (1.00 P.)

[A] temperature and dew point are nearly equal.

[B] water vapour condenses.

[C] relative humidity reaches 98%.

[D] water vapour is present.

88 Which of the following are favourable conditions for the formation of freezing rain? (1.00 P.)

[A] Cold air aloft from which hail is falling into air that is warm.

[B] Water droplets falling from cold air aloft with a temperature below 0°C into air with a temperature above 0°C.

[C] Warm air aloft from which rain is falling into air with a temperature below 0°C.

[D] An isothermal layer aloft with a temperature just above 0°C through which rain is falling.

89 Which of the following is a cause of stratus forming over flat land? (1.00 P.)

[A] Unstable air.

[B] Radiation during the night from the earth surface in moderate wind.

[C] Convection during the day.

[D] The release of latent heat.

90 Which of the following processes within a layer of air may lead to the building of CU and CB clouds? (1.00 P.)

[A] Radiation.

[B] Frontal lifting within stable layers.

[C] Subsidence.

[D] Convection.

91 What are the characteristics of cumuliform clouds? (1.00 P.)

[A] Large water droplets, stability, no turbulence, showers and mainly rime ice.

[B] Small water droplets, instability, turbulence, extensive areas of rain and rime ice.

[C] Large water droplets, instability, turbulence, showers and mainly clear ice.

[D] Small water droplets, stability, no turbulence and extensive areas of rain.

92 Which of the following types of clouds are evidence of unstable air conditions? (1.00 P.)

[A] CI, SC.

[B] ST, CS.

[C] SC, NS.

[D] CU, CB.

93 Which of the following clouds are classified as medium level clouds in temperate regions ? (1.00 P.)

[A] AS, AC.

[B] SC, NS

[C] CI, CC.

[D] CS, ST.

94 050-001.jpg
Which one of the displayed cloud forms is representative of altocumulus castellanus? (1.00 P.)

Siehe Anlage 1

[A] 4.

[B] 1.

[C] 3.

[D] 2.

95 What is the main composition of clouds classified as "high level clouds"? (1.00 P.)

[A] Ice crystals.

[B] Supercooled water droplets.

[C] Water droplets.

[D] Water vapour.

96 Which of the following clouds may extend into more than one layer? (1.00 P.)

[A] Nimbostratus.

[B] Altocumulus.

[C] Cirrus.

[D] Stratus.

97 Which one of the following types of cloud is most likely to produce heavy precipitation ? (1.00 P.)

[A] SC.

[B] NS.

[C] CS.

[D] ST.

98 What characteristics will the surface winds have in an area where the isobars on the weather map are very close together? (1.00 P.)

[A] Strong and flowing across the isobars.

[B] Strong and flowing parallel to the isobars.

[C] Very weak but gusty and flowing across the isobars.

[D] Moderate and flowing parallel to the isobars.

99 Which forces are balanced with geostrophic winds? (1.00 P.)

[A] Pressure gradient force, Coriolis force.

[B] Pressure gradient force, centrifugal force, friction force.

[C] Pressure gradient force, Coriolis force, centrifugal force.

[D] Friction force, pressure gradient force, Coriolis force.

100 How does moderate turbulence affect an aircraft? (1.00 P.)

[A] Rapid and somewhat rhythmic bumpiness is experienced without appreciable changes in altitude or attitude.

[B] Changes in altitude or attitude occur but the aircraft remains in positive control at all times.

[C] Continued flight in this environment will result in structural damage.

[D] Large, abrupt changes in altitude or attitude occur but the aircraft may only be out of control momentarily.

101 Which degree of aircraft turbulence is determined by the following ICAO description?
"There may be moderate changes in aircraft attitude and/or altitude but the aircraft remains in positive control at all times. Usually, small variations in air speed. Changes in accelerometer readings of 0.5 to 1.0 g at the aircraft's centre of gravity. Occupants feel strain against seat belts. Loose objects move about. Food service and walking are difficult." (1.00 P.)

[A] Violent.

[B] Moderate.

[C] Light.

[D] Severe.

102 For an aircraft what are the meteorological dangers associated with a Harmattan wind? (1.00 P.)

[A] Thunderstorms.

[B] Sand up to FL 150.

[C] Hail.

[D] Dust and poor visibility.

103 What is the strong relatively cold katabatic wind, blowing down the northern Adriatic coast, mainly during the winter and spring called? (1.00 P.)

[A] Mistral.

[B] Bora.

[C] Scirocco.

[D] Ghibli.

104 In a land- and sea-breeze circulation the land-breeze blows: (1.00 P.)

[A] during the night and is weaker than the sea-breeze.

[B] during the night and is stronger than the sea-breeze.

[C] during the day and is stronger than the sea-breeze.

[D] during the day and is weaker than the sea-breeze.

105 A high pressure area (slack pressure gradient) covers part of the Mediterranean Sea and coastal region during the summer. What surface wind direction is likely at an airport at the coast on a sunny afternoon? (1.00 P.)

[A] Land to sea.

[B] Parallel to the coastline.

[C] Variable.

[D] Sea to land.

106 A mountain breeze (katabatic wind) blows (1.00 P.)

[A] down the slope during the night.

[B] down the slope during the day.

[C] up the slope during the day.

[D] up the slope during the night.

107 Generally northern hemisphere winds at 5000 FT/AGL are south-westerly while most of the surface winds are southerly. What is the primary reason of difference between these two wind directions? (1.00 P.)

[A] A strong pressure gradient at higher altitudes.

[B] The influence of warm air at the lower altitude.

[C] Stronger Coriolis force at the surface.

[D] Friction between the wind and the surface.

108 Friction between the air and the ground results in the northern hemisphere in: (1.00 P.)

[A] backing of the wind and increase of wind speed at the surface.

[B] veering of the wind and decrease of wind speed at the surface.

[C] veering of the wind and increase of wind speed at the surface.

[D] backing of the wind and decrease of wind speed at the surface.

109 In the southern hemisphere what wind effect would you expect when flying from a high pressure area towards a low pressure area at FL 100? (1.00 P.)

[A] Wind from the left.

[B] Wind from the right.

[C] Headwind with no drift.

[D] Tailwind with no drift.

110 What degree of turbulence, if any, is likely to be encountered while flying through a cold front in the summer over Central Europe at FL 100? (1.00 P.)

[A] Severe turbulence in CB cloud.

[B] Light turbulence in ST cloud.

[C] Moderate turbulence in NS cloud.

[D] Light turbulence in CB cloud.

111 Where is the source of tropical continental air that affects Europe in summer? (1.00 P.)

[A] The southern Balkan region and the Near East.

[B] Southern Italy.

[C] The Azores region.

[D] Southern France.

112 Where does polar continental air originate? (1.00 P.)

[A] Siberian landmass.

[B] The region of Azores.

[C] Polar ice cap.

[D] The region of the British Isles.

113 In which air mass are extremely low temperatures encountered? (1.00 P.)

[A] Polar maritime air.

[B] Tropical continental air.

[C] Polar continental air.

[D] Arctic maritime air.

114 With what type of clouds are showers most likely associated? (1.00 P.)

[A] Nimbostratus.

[B] Stratus.

[C] Cumulonimbus.

[D] Stratocumulus.

115 At what time of day, or night, is radiation fog most likely to occur? (1.00 P.)

[A] Late evening.

[B] Shortly after sunrise.

[C] Shortly after midnight.

[D] At sunset.

116 What is the average vertical extent of radiation fog? (1.00 P.)

[A] 5 000 FT.

[B] 2 000 FT.

[C] 500 FT.

[D] 10 000 FT.

117 Which of the following weather conditions favour the formation of radiation fog? (1.00 P.)

[A] Light wind, little or no cloud, moist air.

[B] Strong wind, little or no cloud, moist air.

[C] Light wind, extensive cloud, dry air.

[D] Light wind, extensive cloud, moist air.

118 What type of fronts are most likely to be present during the winter in Central Europe when temperatures close to the ground are below 0°C, and freezing rain starts to fall? (1.00 P.)

[A] High level cold fronts.

[B] Cold occlusions.

[C] Cold fronts.

[D] Warm fronts, warm occlusions.

119 Which of the following conditions are you most likely to encounter when approaching an active warm front at medium to low level ? (1.00 P.)

[A] High cloud base, good surface visibility, and isolated thunderstorms.

[B] Low cloud base and poor visibility.

[C] Extreme turbulence and severe lightning striking the ground.

[D] Severe thunderstorms at low altitude.

120 During a cross-country flight at FL 50, you observe the following sequence of clouds:
Nimbostratus, Altostratus, Cirrostratus, Cirrus.
Which of the following are you most likely to encounter ? (1.00 P.)

[A] Increasing temperatures.

[B] A strong downdraught.

[C] Strong, gusty winds.

[D] Decreasing temperatures.

121 What cloud formation is most likely to occur at low levels when a warm air mass overrides a cold air mass? (1.00 P.)

[A] Altostratus.

[B] Cumulus.

[C] Cumulonimbus.

[D] Nimbostratus.

122 The approximate inclined plane of a warm front is: (1.00 P.)

[A] 1/50

[B] 1/500

[C] 1/150

[D] 1/300

123 In which approximate direction does the centre of a non-occluded frontal depression move? (1.00 P.)

[A] In the direction of the sharpest pressure increase.

[B] In the direction of the warm sector isobars.

[C] In the direction of the isobars behind the cold front.

[D] In the direction of the isobars ahead of the warm front.

124 Where is the coldest air to be found, in an occlusion with cold front characteristics? (1.00 P.)

[A] Behind the front.

[B] At the surface position of the front.

[C] Ahead of the front.

[D] At the junction of the occlusion.

125 What type of front / occlusion usually moves the fastest? (1.00 P.)

[A] Warm front.

[B] Cold occlusion.

[C] Cold front.

[D] Warm occlusion.

126 Over Central Europe what type of cloud cover is typical of the warm sector of a depression during winter? (1.00 P.)

[A] CU, CB.

[B] CI, CS.

[C] ST.

[D] Fair weather CU.

127 What weather conditions are prevalent during the summer, over the North Sea, approximately 300 km behind a quickly moving cold front? (1.00 P.)

[A] Cloud cover mostly scattered, isolated showers.

[B] Advection fog.

[C] Rain covering a large area, 8 octas NS.

[D] 8 octas CS, AS without precipitation.

128 What is the surface visibility most likely to be, in a warm sector of tropical maritime air, during a summer afternoon in western Europe ? (1.00 P.)

[A] Very poor (less than 1 km).

[B] Moderate (several km).

[C] Very good (greater than 50 km).

[D] Good (greater than 10 km).

129 Which one of the following statements regarding the intertropical convergence zone (ITCZ) is correct? (1.00 P.)

[A] Thunderstorms seldom occur within the area of the ITCZ.

[B] Frequent and widespread thunderstorms are to be expected within the area of the ITCZ.

[C] The ITCZ does not change its position during the course of the year.

[D] The ITCZ is always associated with a strong jet stream.

130 In which of the following bands of latitude is the intertropical convergence zone most likely to be encountered in January, between Dakar and Rio de Janeiro? (1.00 P.)

[A] 8° - 12°S.

[B] 3° - 8°S.

[C] 7° - 12°N.

[D] 0° - 7°N.

131 What weather conditions are indications of the summer monsoon in India? (1.00 P.)

[A] Fog.

[B] Sandstorms.

[C] Stratus clouds and drizzle.

[D] Thunderstorms, showers of heavy rain.

132 After passing at right angles through a very active cold front in the direction of the cold air, what will you encounter at FL 50, in the northern hemisphere immediately after a marked change in temperature? (1.00 P.)

[A] An increase in tailwind.

[B] A veering in the wind direction.

[C] A decrease in tailwind.

[D] A backing in the wind direction.

133 When are the rainy seasons in equatorial Africa? (1.00 P.)

[A] March to May and August to October.

[B] March to May and October to November.

[C] December to February and July to October.

[D] April to July and December to February.

134 Which of the following best describes the intertropical convergence zone ? (1.00 P.)

[A] The zone where the trade winds of the northern hemisphere meet those of the southern hemisphere.

[B] The zone where cold fronts form in the tropics.

[C] The zone where the west winds meet the subtropical high pressure belt.

[D] The zone where the Harmattan meets the north-easterly trade winds over Africa.

135 What is the likely track for a hurricane in the Caribbean area? (1.00 P.)

[A] West in the earlier stages and later turning north east.

[B] West deep into the USA.

[C] East then south.

[D] West in the earlier stages and later turning south east.

136 During which seasons are hurricanes most likely to appear in the northern hemisphere? (1.00 P.)

[A] All seasons.

[B] Summer and autumn.

[C] Winter and spring.

[D] Winter.

137 What is encountered during the summer, over land, in the centre of a cold air pool? (1.00 P.)

[A] Showers and thunderstorms.

[B] Sky clear (SKC).

[C] Strong westerly winds.

[D] Fine weather CU.

138 How do you recognize a cold air pool? (1.00 P.)

[A] As a high pressure area aloft (e.g. on the 500 hPa chart).

[B] As a low pressure area aloft (e.g. on the 500 hPa chart).

[C] A cold air pool may only be recognized on the surface chart as a low pressure area.

[D] A cold air pool may only be recognized on the surface chart as a high pressure area.

139 What is the correct term for the descending air flow in a large high pressure area? (1.00 P.)

[A] Subsidence.

[B] Advection.

[C] Convergence.

[D] Convection.

140 What surface weather is associated with a stationary high pressure region over land in the winter? (1.00 P.)

[A] Thunderstorms.

[B] NS with continuous rain.

[C] The possibility of snow showers.

[D] A tendency for fog and low ST.

141 In temperate latitudes what weather conditions may be expected over land during the summer in the centre of a stationary high pressure zone ? (1.00 P.)

[A] TS, SH.

[B] CB, TS.

[C] NS.

[D] Calm winds, haze.

142 At what time of the year, are the paths of north Atlantic lows moving from west to east generally at their most southerly position? (1.00 P.)

[A] Winter.

[B] Summer.

[C] Autumn.

[D] Spring.

143 The wind indicator for a weather observation receives the measured value from an anemometer. Where is this instrument placed? (1.00 P.)

[A] On the roof of the weather station.

[B] 1 m above the runway.

[C] On a mast 6-10 m above the runway.

[D] Close to the station about 2 m above the ground.

144 You are flying with an outside air temperature of -12°C and a TAS of 250 kt at FL 150 through 8 oktas NS. What type and degree of icing is most probable? (1.00 P.)

[A] Over flat terrain, away from fronts, moderate to severe mixed ice.

[B] In clouds pushed up against the mountains, moderate to severe mixed ice.

[C] Over flat terrain, moderate hoar frost.

[D] In clouds pushed up against the mountains, moderate to severe clear ice.

145 You intend to carry out a VFR flight over the Alps, on a fine and hot summer day. What is the best time of day to conduct this flight? (1.00 P.)

[A] Afternoon.

[B] Morning.

[C] Early evening.

[D] Mid-day.

146 At what time of the year are tornadoes most likely to occur in North America? (1.00 P.)

[A] Autumn, winter.

[B] Summer, autumn.

[C] Spring, summer.

[D] Winter.

147 In Central Europe when is the greatest likelihood for thunderstorms due to warm updrafts? (1.00 P.)

[A] Around midnight.

[B] Mid - afternoon.

[C] Late morning.

[D] Early morning.

148 During which stage of thunderstorm development are rotor winds characterized by roll clouds most likely to occur ? (1.00 P.)

[A] Mature stage.

[B] Dissipating stage.

[C] Cumulus stage and mature stage.

[D] Cumulus stage.

149 Where is a squall line to be expected? (1.00 P.)

[A] In front of an active cold front.

[B] At the surface position of a warm front.

[C] Behind a cold front.

[D] In front of a cold front occlusion at higher levels.

150 What are squall lines? (1.00 P.)

[A] The surface weather associated with upper air troughs.

[B] Unusual intensive cold fronts.

[C] Bands of intensive thunderstorms.

[D] The paths of tropical revolving storms.

151 Which weather phenomena are typical for the northern side of the Alps with strong winds from the south (Foehn)? (1.00 P.)

[A] Decrease in temperature, moderate to severe icing.

[B] Icing, huge mass of clouds.

[C] Good visibility, turbulence.

[D] Continuous precipitation, severe turbulence.

152 What winds and air mass characteristics are mainly associated with the winter monsoon in the monsoon regions of the Indian sub-continent? (1.00 P.)

[A] South-westerly winds carrying warm and humid air.

[B] North-easterly winds bringing dry and hazy air.

[C] South-easterly winds carrying warm and humid air.

[D] North-westerly winds bringing dry and hazy air.

153 What is the meaning of the expression "FEW"? (1.00 P.)

[A] 3 - 4 oktas.

[B] 5 - 7 oktas.

[C] 1 - 2 oktas.

[D] 8 oktas.

154 When is the RVR reported at most airports? (1.00 P.)

[A] When the RVR decreases below 2000 m.

[B] When the RVR decreases below 2500 m.

[C] When the visibility decreases below 2000 m.

[D] When the visibility decreases below 1500 m.

155 How is the direction and speed of upper winds described in forecasts ? (1.00 P.)

[A] The direction is relative to magnetic north and the speed is in miles per hour.

[B] The direction is relative to magnetic north and the speed is in knots.

[C] The direction is relative to true north and the speed is in knots.

[D] The direction is relative to true north and the speed is in miles per hour.

156 What positions are connected by contour lines on a weather chart? (1.00 P.)

[A] Positions with the same height in a chart of constant pressure.

[B] Positions with the same air density.

[C] Positions with the same wind velocity.

[D] Positions with the same thickness between two constant pressure levels.

157 In which meteorological forecast chart is information about CAT regions found? (1.00 P.)

[A] 500 hPa chart.

[B] 300 hPa chart.

[C] 24 hour surface forecast.

[D] Significant Weather Chart.

158 On which of the following aviation weather charts can a pilot most easily find a jetstream? (1.00 P.)

[A] Significant weather chart.

[B] Wind / temperature chart.

[C] Surface chart.

[D] Upper air chart.

159 What is the best approximation for the wind speed at flight level 250? (1.00 P.)

[A] By interpolation of the wind information available from the 500 and 300 hPa charts, while also considering the maximum wind information found on the Significant Weather Chart.

[B] By reading wind direction and speed from the 300 hPa chart.

[C] By simple interpolation of wind information available from the 500 and 300 hPa charts.

[D] By reading wind direction and speed from the 500 hPa chart.

160 Why are indications about the height of the tropopause not essential for flight documentation in the tropics? (1.00 P.)

[A] The tropopause is generally well above the flight level actually flown.

[B] The temperatures of the tropical tropopause are always very low and therefore not important.

[C] The meteorological services are unable to provide such a chart.

[D] The tropopause is always at the same height.

161 In the TAF for Dehli, during the summer, for the time of your landing you note: TEMPO TS. What is the maximum time this deterioration in weather can last in any one instance ? (1.00 P.)

[A] 60 minutes.

[B] 120 minutes.

[C] 20 minutes.

[D] 10 minutes.

162 How are well separated CB clouds described on the Significant Weather Chart? (1.00 P.)

[A] OCNL CB.

[B] FRQ CB.

[C] EMBD CB.

[D] ISOL CB.

163

The cold front is indicated by: (1.00 P.)

Siehe Anlage 2

[A] number 4

[B] number 1

[C] number 3

[D] number 2

164

What does the symbol indicate on a Significant Weather Chart? (1.00 P.)

Siehe Anlage 3

[A] The centre of a high pressure area at 400 hPa.

[B] The lower limit of the tropopause.

[C] The centre of a tropopause "high", where the tropopause is at FL 400.

[D] The upper limit of significant weather at FL 400.

165 Which typical weather situation is shown on the weather chart ? (Spacing of the isobars: 5 hPa) (1.00 P.)

Siehe Anlage 4

[A] Uniform pressure pattern.

[B] Warm south wind condition (Foehn).

[C] Cutting wind.

[D] West wind condition.

166

Which one of the tracks (dashed lines) is represented by the cross-section shown on the left ? (1.00 P.)

Siehe Anlage 5

[A] Track C-A

[B] Track B-A

[C] Track D-A

[D] Track B-C

167

Which cross-section of air mass and cloud presentation is applicable to the straight line A-B? (1.00 P.)

Siehe Anlage 6

[A] 2

[B] 1

[C] 4

[D] 3

168

What is the classification of the air mass affecting position "Q" ? (1.00 P.)

Siehe Anlage 7

[A] Polar continental.

[B] Tropical maritime.

[C] Polar maritime.

[D] Tropical continental.

169 The 0° isotherm is forecast to be at FL 50. At what FL would you expect a temperature of -6° C? (1.00 P.)

[A] FL 100

[B] FL 110

[C] FL 20

[D] FL 80

170 What positions are connected by isobars on the surface weather chart? (1.00 P.)

[A] Positions with the same air pressure at a given level

[B] Positions with the same wind velocity at a given level

[C] Positions with the same relative pressure heights

[D] Positions with the same temperature at a given level

171 What is the main cause for the formation of a polar front jet stream? (1.00 P.)

[A] The north-south horizontal temperature gradient at the polar front

[B] The pressure difference, close to the ground, between a high over the Azores and a low over Iceland

[C] Strong winds in the upper atmosphere

[D] The varied elevations of the tropopause in the polar front region

172 Which jet stream is connected with a surface front system? (1.00 P.)

[A] The easterly jet stream

[B] The subtropical jet stream

[C] The equatorial jet stream

[D] The polar front jet stream

173 At approximately what flight level is the subtropical jet stream found? (1.00 P.)

[A] FL 300

[B] FL 200

[C] FL 400

[D] FL 500

174 A parcel of moist but not saturated air rises due to adiabatic effects. Which of the following changes ? (1.00 P.)

[A] Mixing ratio

[B] Specific humidity

[C] Relative humidity

[D] Absolute humidity

175 In which of the following changes of state is latent heat released ? (1.00 P.)

[A] Liquid to gas

[B] Solid to liquid

[C] Gas to liquid

[D] Solid to gas

176 How are high level condensation trails formed that are to be found occasionally behind jet aircraft ? (1.00 P.)

[A] Through water vapour released during fuel combustion

[B] Only through unburnt fuel in the exhaust gases

[C] In conditions of low humidity, through the particles of soot contained in the exhaust gases

[D] Through a decrease in pressure, and the associated adiabatic drop in temperature at the wing tips while flying through relatively warm but humid air

177 What process in an air mass leads to the creation of wide spread NS and AS cloud coverage? (1.00 P.)

[A] Sinking

[B] Convection process

[C] Lifting

[D] Radiation

178 Which of the following cloud is classified as low level cloud ? (1.00 P.)

[A] CS

[B] CC

[C] AS

[D] ST

179 In which of the following conditions is moderate to severe airframe icing most likely to be encountered? (1.00 P.)

[A] Below the freezing level in clear air

[B] In clear air above the freezing level

[C] Within cloud of any type

[D] In Nimbostratus cloud

180 What flying conditions are normally encountered when flying in cirrus clouds? (1.00 P.)

[A] Average horizontal visibility less than 500 m; nil icing.

[B] Average horizontal visibility more than 1000 m; nil icing.

[C] Average horizontal visibility less than 500 m; light to moderate icing.

[D] Average horizontal visibility more than 1000 m; light to moderate rime ice.

181 Which of the following is most likely to lead to the dissipation of radiation fog ? (1.00 P.)

[A] A marked decrease in wind velocity close to the ground

[B] Ground cooling caused by radiation during the night

[C] A build up of a high pressure area resulting in adiabatic warming associated with a sinking air mass

[D] A marked increase in wind velocity near the ground

182 Which of the following conditions is most likely to lead to the formation of steam fog (arctic smoke)? (1.00 P.)

[A] The sea is warmed by strong radiation from the sun

[B] Warm air moving over cold water

[C] Cold air moving over warm water

[D] The coastal region of the sea cools at night

183 How does freezing rain develop? (1.00 P.)

[A] Snow falls through a layer where temperatures are above 0°C

[B] Rain falls through a layer where temperatures are below 0°C

[C] Through melting of ice crystals

[D] Through melting of snow grains

184 What type of cloud can produce hail showers? (1.00 P.)

[A] NS

[B] CB

[C] CS

[D] AC

185 In which of the following regions does polar maritime air originate ? (1.00 P.)

[A] Region of British Isles

[B] East of Greenland

[C] Baltic Sea

[D] Black Sea

186 In which of the following situations can freezing rain be encountered ? (1.00 P.)

[A] Ahead of a warm front in the winter

[B] Ahead of a cold front in the summer

[C] Behind a warm front in the summer

[D] Ahead of a cold front in the winter

187 How do air masses move at a warm front ? (1.00 P.)

[A] Warm air overrides a cold air mass

[B] Cold air overrides a warm air mass

[C] Cold air undercuts a warm air mass

[D] Warm air undercuts a cold air mass

188 What type of precipitation would you expect at an active unstable cold front? (1.00 P.)

[A] Showers associated with thunderstorms

[B] Drizzle

[C] Light to moderate continuous rain

[D] Freezing rain

189 What is the relative movement of the two air masses along a cold front ? (1.00 P.)

[A] Cold air slides over a warm air mass

[B] Warm air pushes over a cold air mass

[C] Warm air pushes under a cold air mass

[D] Cold air pushes under a warm air mass

190 What cloud cover is typical for a wide warm sector of a polar front depression over Central Europe in the summer ? (1.00 P.)

[A] Sky clear

[B] Fair weather CU

[C] BKN CU and CB

[D] ST with drizzle

191 Which of the following describes a warm occlusion? (1.00 P.)

[A] The warmer air mass is ahead of the original warm front

[B] The air mass ahead of the front is drier than the air mass behind the front

[C] The coldest air mass is ahead of the original warm front

[D] The air mass behind the front is more unstable than the air mass ahead of the front

192 When do cold occlusions occur most frequently in Europe? (1.00 P.)

[A] Summer

[B] Winter

[C] Autumn and winter

[D] Winter and spring

193 In which main direction does a polar front depression move? (1.00 P.)

[A] Across the front towards the south

[B] Along the front towards the west

[C] Across the front towards the north

[D] Along the front towards the east

194

What change in pressure, will occur at point A, during the next hour? (1.00 P.)

Siehe Anlage 8

[A] Approximately constant pressure

[B] A drop in pressure

[C] A rise in pressure

[D] Irregular fluctuations

195 What is the most likely cause of a lack of clouds at higher levels in a stationary high? (1.00 P.)

[A] Sinking air

[B] Instability

[C] Divergence at higher levels

[D] Rising air

196 On which coast of North America, is the danger of tropical revolving storms the greatest? (1.00 P.)

[A] W coast

[B] N coast

[C] NE coast

[D] SE coast

197 Where, during a flight from Marseille to Dakar, in July, may the ITCZ be encountered? (1.00 P.)

[A] At the latitudes of Gibraltar

[B] Near the Canary Islands

[C] At the latitudes of Algeria

[D] In the vicinity of Dakar

198 Which wind systems converge on the ITCZ, when it lies at the equator? (1.00 P.)

[A] NW monsoon and SW trade winds

[B] SW monsoon and NW trade winds

[C] SW monsoon and NW monsoon

[D] SE trade winds and NE trade winds

199 From which direction do the trade winds blow, in the southern hemisphere? (1.00 P.)

[A] SW

[B] NE

[C] SE

[D] N

200 What weather conditions in the region of the Alps would you expect with Foehn from south? (1.00 P.)

[A] Heavy clear air turbulence on the southern side of the Alps

[B] Strong north winds on the southern side of the Alps

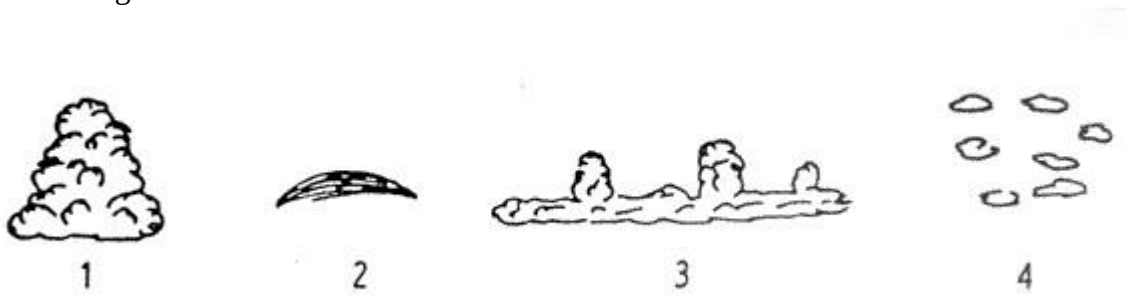
[C] Heavy airframe icing conditions on the northern side of the Alps

[D] Clouds, on the southern sides of passes in the Alps

Anlagen zu den Aufgaben

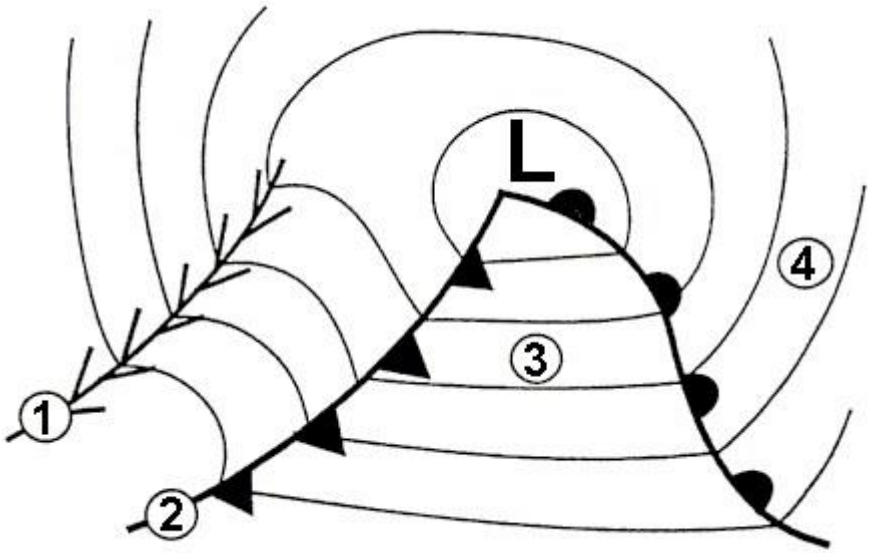
Anlage 1 zu Aufgabe 94

Titel: Anlage 1



Anlage 2 zu Aufgabe 163

Titel: Anlage 1



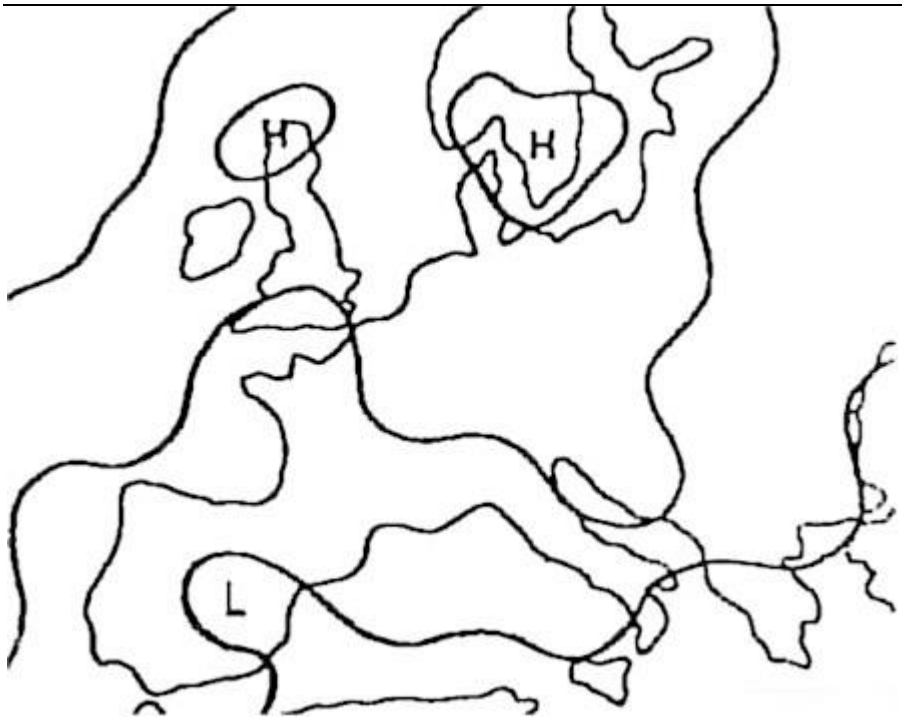
Anlage 3 zu Aufgabe 164

Titel: Anlage 1

Anlage 4 zu Aufgabe 165

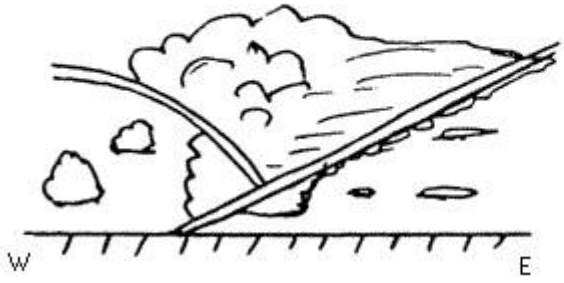
Titel: Anlage 1

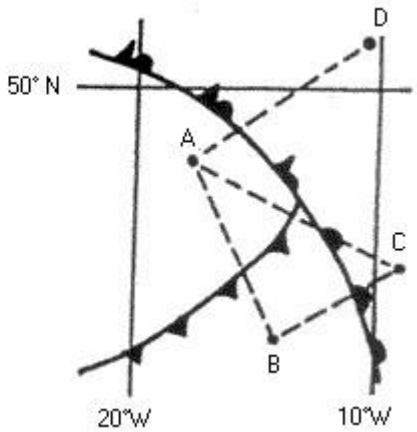
Anlagen zu den Aufgaben



Anlage 5 zu Aufgabe 166

Titel: Anlage 1

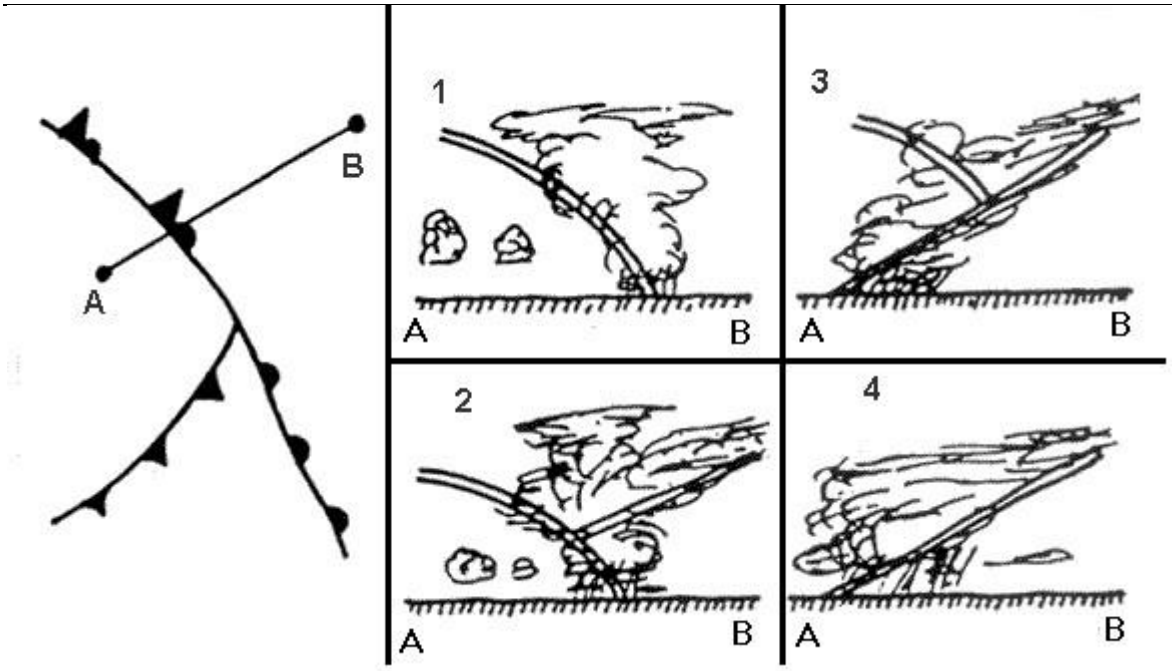




Anlage 6 zu Aufgabe 167

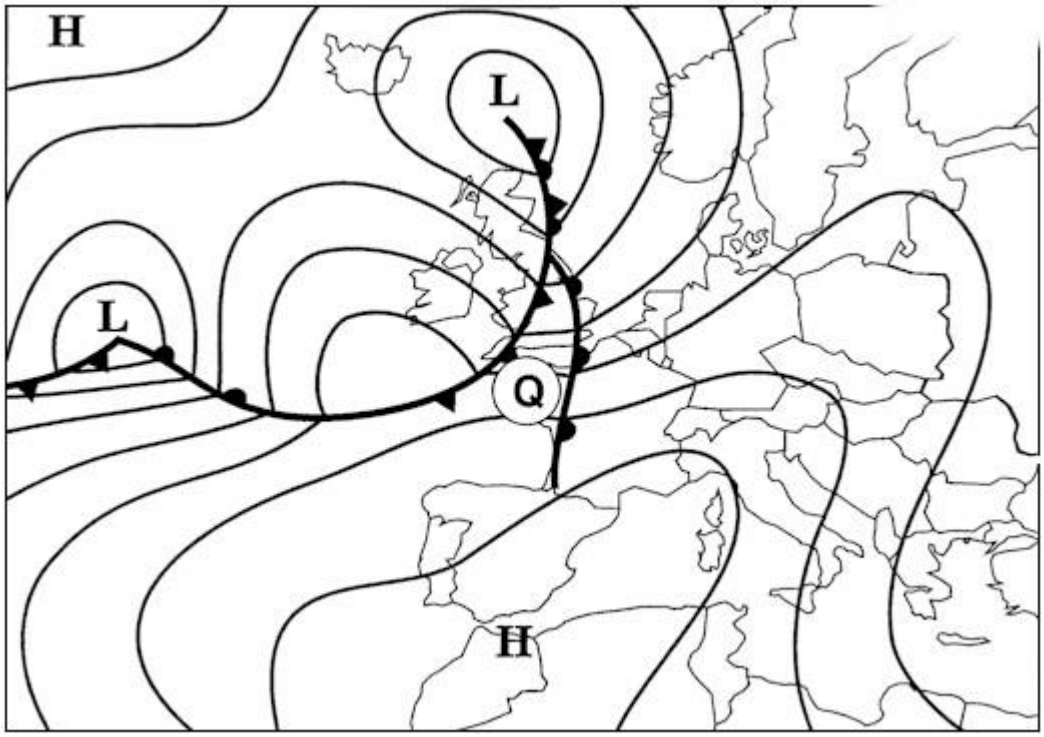
Titel: Anlage 1

Anlagen zu den Aufgaben



Anlage 7 zu Aufgabe 168

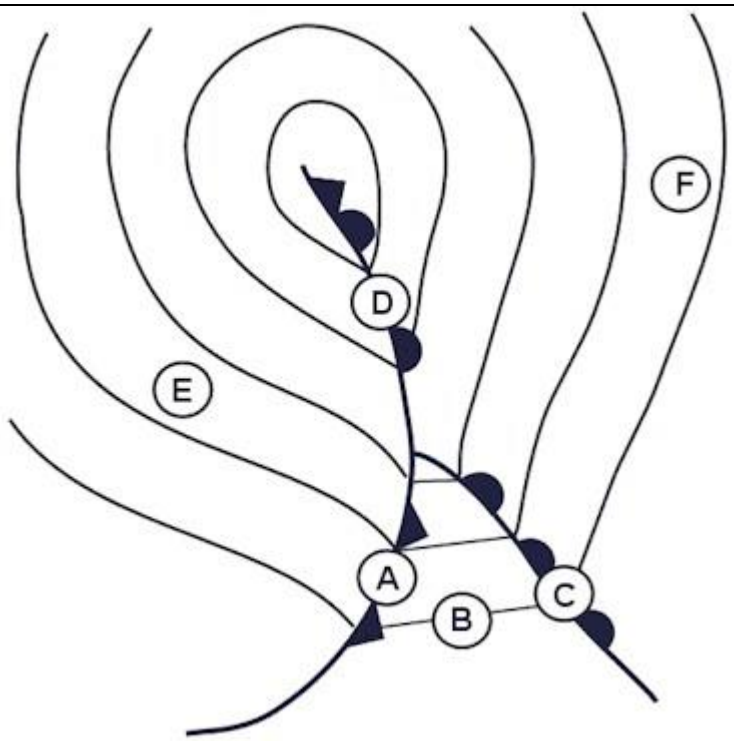
Titel: Anlage 1



Anlage 8 zu Aufgabe 194

Titel: Anlage 1

Anlagen zu den Aufgaben



Vom Teilnehmer auszufüllen	
Name:	**Prüf.-Nr.:**
Prüfungsdatum:	**Unterschrift**

1.	A	B	C	D	**2.**	A	B	C	D	**3.**	A	B	C	D
4.	**A**	**B**	**C**	**D**	**5.**	**A**	**B**	**C**	**D**	**6.**	**A**	**B**	**C**	**D**
7.	**A**	**B**	**C**	**D**	**8.**	**A**	**B**	**C**	**D**	**9.**	**A**	**B**	**C**	**D**
10.	**A**	**B**	**C**	**D**	**11.**	**A**	**B**	**C**	**D**	**12.**	**A**	**B**	**C**	**D**
13.	**A**	**B**	**C**	**D**	**14.**	**A**	**B**	**C**	**D**	**15.**	**A**	**B**	**C**	**D**
16.	**A**	**B**	**C**	**D**	**17.**	**A**	**B**	**C**	**D**	**18.**	**A**	**B**	**C**	**D**
19.	**A**	**B**	**C**	**D**	**20.**	**A**	**B**	**C**	**D**	**21.**	**A**	**B**	**C**	**D**
22.	**A**	**B**	**C**	**D**	**23.**	**A**	**B**	**C**	**D**	**24.**	**A**	**B**	**C**	**D**
25.	**A**	**B**	**C**	**D**	**26.**	**A**	**B**	**C**	**D**	**27.**	**A**	**B**	**C**	**D**
28.	**A**	**B**	**C**	**D**	**29.**	**A**	**B**	**C**	**D**	**30.**	**A**	**B**	**C**	**D**
31.	**A**	**B**	**C**	**D**	**32.**	**A**	**B**	**C**	**D**	**33.**	**A**	**B**	**C**	**D**
34.	**A**	**B**	**C**	**D**	**35.**	**A**	**B**	**C**	**D**	**36.**	**A**	**B**	**C**	**D**
37.	**A**	**B**	**C**	**D**	**38.**	**A**	**B**	**C**	**D**	**39.**	**A**	**B**	**C**	**D**
40.	**A**	**B**	**C**	**D**	**41.**	**A**	**B**	**C**	**D**	**42.**	**A**	**B**	**C**	**D**
43.	**A**	**B**	**C**	**D**	**44.**	**A**	**B**	**C**	**D**	**45.**	**A**	**B**	**C**	**D**
46.	**A**	**B**	**C**	**D**	**47.**	**A**	**B**	**C**	**D**	**48.**	**A**	**B**	**C**	**D**
49.	**A**	**B**	**C**	**D**	**50.**	**A**	**B**	**C**	**D**	**51.**	**A**	**B**	**C**	**D**
52.	**A**	**B**	**C**	**D**	**53.**	**A**	**B**	**C**	**D**	**54.**	**A**	**B**	**C**	**D**
55.	**A**	**B**	**C**	**D**	**56.**	**A**	**B**	**C**	**D**	**57.**	**A**	**B**	**C**	**D**
58.	**A**	**B**	**C**	**D**	**59.**	**A**	**B**	**C**	**D**	**60.**	**A**	**B**	**C**	**D**
61.	**A**	**B**	**C**	**D**	**62.**	**A**	**B**	**C**	**D**	**63.**	**A**	**B**	**C**	**D**
64.	**A**	**B**	**C**	**D**	**65.**	**A**	**B**	**C**	**D**	**66.**	**A**	**B**	**C**	**D**

Vom Teilnehmer auszufüllen	
Name:	**Prüf.-Nr.:**
Prüfungsdatum:	**Unterschrift**

67.	**A**	**B**	**C**	**D**	**68.**	**A**	**B**	**C**	**D**	**69.**	**A**	**B**	**C**	**D**
70.	**A**	**B**	**C**	**D**	**71.**	**A**	**B**	**C**	**D**	**72.**	**A**	**B**	**C**	**D**
73.	**A**	**B**	**C**	**D**	**74.**	**A**	**B**	**C**	**D**	**75.**	**A**	**B**	**C**	**D**
76.	**A**	**B**	**C**	**D**	**77.**	**A**	**B**	**C**	**D**	**78.**	**A**	**B**	**C**	**D**
79.	**A**	**B**	**C**	**D**	**80.**	**A**	**B**	**C**	**D**	**81.**	**A**	**B**	**C**	**D**
82.	**A**	**B**	**C**	**D**	**83.**	**A**	**B**	**C**	**D**	**84.**	**A**	**B**	**C**	**D**
85.	**A**	**B**	**C**	**D**	**86.**	**A**	**B**	**C**	**D**	**87.**	**A**	**B**	**C**	**D**
88.	**A**	**B**	**C**	**D**	**89.**	**A**	**B**	**C**	**D**	**90.**	**A**	**B**	**C**	**D**
91.	**A**	**B**	**C**	**D**	**92.**	**A**	**B**	**C**	**D**	**93.**	**A**	**B**	**C**	**D**
94.	**A**	**B**	**C**	**D**	**95.**	**A**	**B**	**C**	**D**	**96.**	**A**	**B**	**C**	**D**
97.	**A**	**B**	**C**	**D**	**98.**	**A**	**B**	**C**	**D**	**99.**	**A**	**B**	**C**	**D**
100.	**A**	**B**	**C**	**D**	**101.**	**A**	**B**	**C**	**D**	**102.**	**A**	**B**	**C**	**D**
103.	**A**	**B**	**C**	**D**	**104.**	**A**	**B**	**C**	**D**	**105.**	**A**	**B**	**C**	**D**
106.	**A**	**B**	**C**	**D**	**107.**	**A**	**B**	**C**	**D**	**108.**	**A**	**B**	**C**	**D**
109.	**A**	**B**	**C**	**D**	**110.**	**A**	**B**	**C**	**D**	**111.**	**A**	**B**	**C**	**D**
112.	**A**	**B**	**C**	**D**	**113.**	**A**	**B**	**C**	**D**	**114.**	**A**	**B**	**C**	**D**
115.	**A**	**B**	**C**	**D**	**116.**	**A**	**B**	**C**	**D**	**117.**	**A**	**B**	**C**	**D**
118.	**A**	**B**	**C**	**D**	**119.**	**A**	**B**	**C**	**D**	**120.**	**A**	**B**	**C**	**D**
121.	**A**	**B**	**C**	**D**	**122.**	**A**	**B**	**C**	**D**	**123.**	**A**	**B**	**C**	**D**
124.	**A**	**B**	**C**	**D**	**125.**	**A**	**B**	**C**	**D**	**126.**	**A**	**B**	**C**	**D**
127.	**A**	**B**	**C**	**D**	**128.**	**A**	**B**	**C**	**D**	**129.**	**A**	**B**	**C**	**D**
130.	**A**	**B**	**C**	**D**	**131.**	**A**	**B**	**C**	**D**	**132.**	**A**	**B**	**C**	**D**

Vom Teilnehmer auszufüllen	
Name:	**Prüf.-Nr.:**
Prüfungsdatum:	**Unterschrift**

133.	A	B	C	D	134.	A	B	C	D	135.	A	B	C	D
136.	A	B	C	D	137.	A	B	C	D	138.	A	B	C	D
139.	A	B	C	D	140.	A	B	C	D	141.	A	B	C	D
142.	A	B	C	D	143.	A	B	C	D	144.	A	B	C	D
145.	A	B	C	D	146.	A	B	C	D	147.	A	B	C	D
148.	A	B	C	D	149.	A	B	C	D	150.	A	B	C	D
151.	A	B	C	D	152.	A	B	C	D	153.	A	B	C	D
154.	A	B	C	D	155.	A	B	C	D	156.	A	B	C	D
157.	A	B	C	D	158.	A	B	C	D	159.	A	B	C	D
160.	A	B	C	D	161.	A	B	C	D	162.	A	B	C	D
163.	A	B	C	D	164.	A	B	C	D	165.	A	B	C	D
166.	A	B	C	D	167.	A	B	C	D	168.	A	B	C	D
169.	A	B	C	D	170.	A	B	C	D	171.	A	B	C	D
172.	A	B	C	D	173.	A	B	C	D	174.	A	B	C	D
175.	A	B	C	D	176.	A	B	C	D	177.	A	B	C	D
178.	A	B	C	D	179.	A	B	C	D	180.	A	B	C	D
181.	A	B	C	D	182.	A	B	C	D	183.	A	B	C	D
184.	A	B	C	D	185.	A	B	C	D	186.	A	B	C	D
187.	A	B	C	D	188.	A	B	C	D	189.	A	B	C	D
190.	A	B	C	D	191.	A	B	C	D	192.	A	B	C	D
193.	A	B	C	D	194.	A	B	C	D	195.	A	B	C	D
196.	A	B	C	D	197.	A	B	C	D	198.	A	B	C	D

Vom Teilnehmer auszufüllen	
Name:	**Prüf.-Nr.:**
Prüfungsdatum:	**Unterschrift**

199.	**A**	**B**	**C**	**D**		**200.**	**A**	**B**	**C**	**D**

Nur für den internen Gebrauch	
LÖSUNGSBOGEN	**Prüf.-Nr.:**
Prüfungsdatum:	

1.	A				**2.**			C		**3.**		B		
4.			**C**		**5.**		**B**			**6.**				**D**
7.				**D**	**8.**	**A**				**9.**	**A**			
10.		**B**			**11.**				**D**	**12.**		**B**		
13.		**B**			**14.**				**D**	**15.**	**A**			
16.				**D**	**17.**		**B**			**18.**				**D**
19.				**D**	**20.**				**D**	**21.**	**A**			
22.			**C**		**23.**				**D**	**24.**	**A**			
25.				**D**	**26.**	**A**				**27.**		**B**		
28.			**C**		**29.**	**A**				**30.**		**B**		
31.			**C**		**32.**		**B**			**33.**	**A**			
34.				**D**	**35.**	**A**				**36.**	**A**			
37.		**B**			**38.**			**C**		**39.**		**B**		
40.			**C**		**41.**			**C**		**42.**			**C**	
43.			**C**		**44.**	**A**				**45.**				**D**
46.				**D**	**47.**				**D**	**48.**			**C**	
49.				**D**	**50.**	**A**				**51.**				**D**
52.		**B**			**53.**	**A**				**54.**			**C**	
55.			**C**		**56.**		**B**			**57.**		**B**		
58.	**A**				**59.**				**D**	**60.**	**A**			
61.	**A**				**62.**	**A**				**63.**	**A**			
64.	**A**				**65.**	**A**				**66.**	**A**			

Nur für den internen Gebrauch	
LÖSUNGSBOGEN	**Prüf.-Nr.:**
Prüfungsdatum:	

67.				**D**	**68.**			**C**		**69.**	**A**			
70.				**D**	**71.**				**D**	**72.**	**A**			
73.		**B**			**74.**				**D**	**75.**	**A**			
76.				**D**	**77.**	**A**				**78.**		**B**		
79.			**C**		**80.**				**D**	**81.**		**B**		
82.				**D**	**83.**		**B**			**84.**	**A**			
85.	**A**				**86.**		**B**			**87.**		**B**		
88.			**C**		**89.**		**B**			**90.**				**D**
91.			**C**		**92.**				**D**	**93.**	**A**			
94.			**C**		**95.**	**A**				**96.**	**A**			
97.		**B**			**98.**	**A**				**99.**	**A**			
100.		**B**			**101.**		**B**			**102.**				**D**
103.		**B**			**104.**	**A**				**105.**				**D**
106.	**A**				**107.**				**D**	**108.**				**D**
109.		**B**			**110.**	**A**				**111.**	**A**			
112.	**A**				**113.**			**C**		**114.**			**C**	
115.		**B**			**116.**			**C**		**117.**	**A**			
118.				**D**	**119.**		**B**			**120.**				**D**
121.				**D**	**122.**			**C**		**123.**		**B**		
124.	**A**				**125.**			**C**		**126.**			**C**	
127.	**A**				**128.**		**B**			**129.**		**B**		
130.				**D**	**131.**				**D**	**132.**		**B**		

Nur für den internen Gebrauch	
LÖSUNGSBOGEN	**Prüf.-Nr.:**
Prüfungsdatum:	

133.		B			134.	A				135.	A			
136.		B			137.	A				138.		B		
139.	A				140.				D	141.				D
142.	A				143.			C		144.		B		
145.		B			146.			C		147.		B		
148.	A				149.	A				150.			C	
151.			C		152.		B			153.			C	
154.				D	155.			C		156.	A			
157.				D	158.	A				159.	A			
160.	A				161.	A				162.	A			
163.				D	164.			C		165.	A			
166.			C		167.				D	168.		B		
169.				D	170.	A				171.	A			
172.				D	173.			C		174.			C	
175.			C		176.	A				177.			C	
178.				D	179.				D	180.		B		
181.				D	182.			C		183.		B		
184.		B			185.		B			186.	A			
187.	A				188.	A				189.				D
190.		B			191.			C		192.	A			
193.				D	194.			C		195.	A			
196.				D	197.				D	198.				D

Nur für den internen Gebrauch	
LÖSUNGSBOGEN	**Prüf.-Nr.:**
Prüfungsdatum:	

199.			**C**			**200.**				**D**