

# Examination Center DGAC

Examination Date \_\_\_\_\_

Name \_\_\_\_\_

Firstname \_\_\_\_\_

Birthday \_\_\_\_\_

- 1 The pilot in command may depart from the prescribed rules and regulations in the interest of safety. When such a departure has been made, the pilot must report it to the:  
(1.00 P.)
- [A] nearest police station
  - [B] Director General: KCAA
  - [C] Nearest town
  - [D] nearest convenient Air Traffic Service Unit

- 2 A warning device alerts the crew in case of an excessive cabin altitude. This warning must be triggered on reaching the following altitude: (1.00 P.)
- [A] 12000 ft (approx. 3600 m)
  - [B] 8000 ft (approx. 2400 m)
  - [C] 10000 ft (approx. 3000 m)
  - [D] 14000 ft (approx. 4200 m)

3 Requirements for a commercial pilots licence include:

(1.00 P.)

- [A] 20 hours pilot in command
- [B] 30 hours of cross country time
- [C] 100 hours pilot in command
- [D] 150 hours pilot in command

- 4 A category I precision approach (CAT I) has: (1.00 P.)
- [A] a decision height equal to at least 200 ft.
  - [B] a decision height equal to at least 100 ft.
  - [C] a decision height equal to at least 50 ft.
  - [D] no decision height.
- 5 A category I precision approach (CAT I) is an approach which may be carried out with a runway visual range of at least: (1.00 P.)
- [A] 800 m
  - [B] 500 m
  - [C] 350 m
  - [D] 550 m

6 Any permanent change of address should be notified to KCAA-

(1.00 P.)

- [A] within the 14 days before such a change
- [B] within a minimum of 21 days after such a change
- [C] within the 14 days after such a change
- [D] Within one day

7 Load sheets must be retained for:

(1.00 P.)

[A] 30 days

[B] 90 days

[C] 500 days

[D] 180 days

- 8 To establish the aerodrome operating minima which will apply to any particular operation, an operator must take full account of:

1. equipment available for navigation
2. dimensions and characteristics of the runways
3. composition of the flight crew
4. obstacles in the approach and missed approach areas
5. means to determine and report the meteorological conditions

The combination regrouping all the correct statements is: (1.00 P.)

- [A] 1,2,4,5
- [B] 2,3,5
- [C] 2,4,5
- [D] 1,2,3,4,5



9 When two aircraft are converging track:

(1.00 P.)

- [A] Both shall maintain heading and speed
- [B] the one which has the other on its right shall give way and must avoid passing ahead of the other, unless well clear of it
- [C] the one which has the other on its left shall give way and must avoid passing ahead of the other, unless well clear of it
- [D] both aircraft should alter heading to the left and maintain so until the possibility of collision is well avoided

- 10 The risk of dynamic hydroplaning depends primarily on the: (1.00 P.)
- [A] amount of the lift off speed.
  - [B] strength of the headwind.
  - [C] depth of the standing water on the runway.
  - [D] aircraft's weight.

- 11 A category I precision approach (CAT I) has: (1.00 P.)
- [A] a decision height equal to at least 50 ft.
  - [B] no decision height.
  - [C] a decision height equal to at least 200 ft.
  - [D] a decision height equal to at least 100 ft.

- 12 The semi-circular rule must be complied with and flight levels used for all flights above:

(1.00 P.)

- [A] 2000ft agl
- [B] 100ft agl
- [C] 1000ft agl
- [D] 50 ft agl

- 13 During a conventional approach, the Minimum Descent Height (MDA) is referred to the runway threshold altitude and not to the aerodrome altitude if the runway threshold is at more than: (1.00 P.)
- [A] 2 m (7 ft) above the aerodrome altitude
  - [B] 2 m (7 ft) below the aerodrome altitude
  - [C] 4 m (14 ft) below the aerodrome altitude
  - [D] 4 m (14 ft) above the aerodrome altitude

- 14 If the engine fails in the hover, at 3 ft skid height in still air, in a single engine helicopter, the recommended action is: (1.00 P.)
- [A] counteract yaw with pedals, use cyclic to raise tail rotor, lower collective slightly to maintain rotor RPM
  - [B] use rudder to prevent yaw, push cyclic forward for touchdown, use collective to cushion landing
  - [C] use rudder to prevent yaw, hold cyclic steady, lower collective briefly then raise to cushion landing
  - [D] counteract yaw with pedals, maintain position with cyclic, cushion touchdown with collective

- 15 A category I precision approach (CAT I) is an approach which may be carried out with a runway visual range of at least: (1.00 P.)
- [A] 500 m
  - [B] 550 m
  - [C] 800 m
  - [D] 350 m

- 16 A flight plan which has been activated shall be cancelled:  
(1.00 P.)
- [A] 1 hour after stated or revised ETD
  - [B] 30 minutes after stated or revised ETD
  - [C] 45 minutes after stated or revised ETD
  - [D] 15 minutes after stated or revised ETD



- 17 Blade sailing, with the attendant possibility of a blade strike on the tail boom or rear fuselage, is most likely to occur: (1.00 P.)
- [A] when carrying out extreme manoeuvres involving or approaching zero "g"
  - [B] during an autorotative descent
  - [C] whilst hovering in strong winds
  - [D] during very low rotor RPM conditions, particularly whilst starting or stopping the rotor in gusty conditions

- 18 A category III A precision approach (CAT III A) is an approach which may be carried out with a runway visual range of at least: (1.00 P.)
- [A] 250 m
  - [B] 50 m
  - [C] 100 m
  - [D] 200 m

- 19 Products or materials are considered to be dangerous goods if the products or materials in question are defined as such by: (1.00 P.)
- [A] The UNO document entitled "Dangerous Goods Regulations".
  - [B] The IATA document entitled "Regulations governing the transportation of dangerous goods by air".
  - [C] The ICAO document entitled "Technical Instructions for the safe transport of dangerous goods by air".
  - [D] The directives of the Community Union.

20 Minimum height when circling over a crowd of people is:

(1.00 P.)

[A] 1000 feet

[B] 3000 feet

[C] 1500 feet

[D] Not permitted

- 21 A category III B precision approach (CAT III B) is an approach which may be carried out with a runway visual range of at least: (1.00 P.)
- [A] 250 m
  - [B] 75 m
  - [C] 200 m
  - [D] 150 m

- 22 Ground resonance occurring when RPM is within operating limits can be alleviated by: (1.00 P.)
- [A] applying the rotor brake as rapidly as possible
  - [B] applying collective pitch and lifting off
  - [C] avoiding any control input until all vibration has ceased
  - [D] compensating for helicopter movement with cyclic control

- 23 To establish the aerodrome operating minima which will apply to any particular operation, an operator must take full account of:

1. equipment available for navigation
2. dimensions and characteristics of the runways
3. composition of the flight crew
4. obstacles in the approach and missed approach areas
5. means to determine and report the meteorological conditions

The combination regrouping all the correct statements is: (1.00 P.)

- [A] 2,4,5
- [B] 2,3,5
- [C] 1,2,3,4,5
- [D] 1,2,4,5

- 24 The aircraft is a single engine, IFR, category A with a cruising speed of 150 knots. The aircraft is flown by a single pilot. The usable runway has edge lights, high intensity runway centre lights and RVR readings for threshold mid and end of runway. The approach minimums for runway 06 are:  
DH = 300 feet,  
Horizontal visibility (HV) = 800 metres.  
The weather conditions are: horizontal visibility (HV) 900 metres and ceiling 200 feet.

Is take-off possible? (1.00 P.)

- [A] No, visibility being below 1 200 metres.
- [B] No, the ceiling being below the DH for the runway's approach procedure.
- [C] Yes, visibility being higher than the horizontal visibility for the approach procedure.
- [D] Yes, if there is an accessible airport within 75 NM.

- 25 At an airfield without an ATSU, an aircraft taking off on runway 35 on a cross country flight shall turn: (1.00 P.)
- [A] left
  - [B] right
  - [C] Either left or right
  - [D] it will depend on whether there is a left or right hand circuit on RW 35 after take-off to set course.



- 26 When establishing an instrument approach procedure, 5 aircraft categories according to their speed at the threshold ( $V_{at}$ ) are established. This speed is equal to the stalling speed in the landing configuration at the maximum certified landing mass multiplied by a factor of: (1.00 P.)
- [A] 1.45
  - [B] 1.5
  - [C] 1.15
  - [D] 1.3

27 A met report must be obtained for all flights:

(1.00 P.)

- [A] less than 10 nm
- [B] of more than 30- nm
- [C] irrespective of the distance
- [D] of more than 20 nm

- 28 If a pilot has connected the automatic pilot to the gyro compass (which is assumed to be operating correctly) and the latter is fitted with a rate correction device which is properly corrected by astronomical precession, the course followed by the aircraft (in still air conditions) is a: (1.00 P.)
- [A] curve of some type or other.
  - [B] great circle.
  - [C] rhumb line.
  - [D] spherical flight segment.

- 29 For a twin-engine aeroplane, the standard operational take-off minimums may be used provided an alternate aerodrome is accessible at less than: (1.00 P.)
- [A] 30 minutes at cruising speed with one engine unserviceable.
  - [B] 60 minutes at cruising speed with one engine unserviceable.
  - [C] 60 minutes at cruising speed all engines running.
  - [D] 30 minutes at cruising speed all engines running.

- 30 An aircraft leaves point P ( $60^{\circ}\text{N } 030^{\circ}\text{W}$ ) on a true heading equal to  $090^{\circ}$  while the gyro compass, which is assumed to be operating perfectly and without an hourly rate corrector unit, indicates  $000^{\circ}$ .  
The aircraft arrives at point Q ( $62^{\circ}\text{N } 010^{\circ}\text{W}$ ) on a true heading equal to  $095^{\circ}$ . On the journey from P to Q the gyro compass remains in free gyro mode.  
If the flight lasted 1 hour 30 minutes, the gyro heading at Q will be: (1.00 P.)
- [A]  $328^{\circ}$ .
  - [B]  $345^{\circ}$ .
  - [C]  $334^{\circ}$ .
  - [D]  $003^{\circ}$ .

- 31 Before carrying passengers the pilot-in-command of an aircraft must have completed, on the aircraft type in which he intends carrying passengers:  
(1.00 P.)
- [A] 3 take-offs and landings in the preceding 90 days
  - [B] 10 take offs and landings
  - [C] 5 take-offs and landings in the preceding 90 days
  - [D] 5 take-offs and landings in the preceding 6 months

- 32 An instrument rating is valid for:  
(1.00 P.)
- [A] 6 months
  - [B] 3 months
  - [C] 20 months
  - [D] 12 months

33 The information to consider for a non precision straight in approach is:

1 - RVR/Visibility

2 - the ceiling

3 - the minimum descent altitude/height (MDA/H)

4 - the decision altitude/height (DA/H)

Which of the following combinations contains all of the correct statements? (1.00 P.)

[A] 1 - 3

[B] 1 - 4

[C] 1 - 2 - 4

[D] 1 - 2 - 3



- 34 A flight plan for a flight to be conducted in controlled airspace or advisory airspace, must be submitted at least:  
(1.00 P.)
- [A] 30 minutes before departure
  - [B] 60 minutes before departure
  - [C] 45 minutes before departure
  - [D] 20 minutes before departure

- 35 A category D aeroplane can carry out a circling approach only if the meteorological visibility is higher than or equal to: (1.00 P.)
- [A] 3600 m
  - [B] 1500 m
  - [C] 1600 m
  - [D] 2400 m

- 36 A pilot is using a polar stereographic chart whose grid is parallel to the zero meridian, with Grid North in the direction of the North geographic pole. In polar regions, the pilot stops navigation in free-gyro mode after leaving the 6 microteslas zone, and the grid heading controlled by information from the inertial navigation system (INS) is  $045^\circ$ . After switching to "magnetic mode", the compass heading is  $220^\circ$ . The INS position at this moment is  $76^\circ\text{N } 180^\circ\text{W}$ . The magnetic variation on the chart is  $10^\circ\text{E}$ . The compass deviation at this heading is: (1.00 P.)
- [A]  $-15^\circ$ .
  - [B]  $+5^\circ$ .
  - [C]  $+15^\circ$ .
  - [D]  $-5^\circ$ .

- 37 For a flight from Wilson Airport (controlled) to Makindu (uncontrolled) a flight plan:

(1.00 P.)

- [A] must be filed if the flight is at night
- [B] must be filed
- [C] May not be filled as it is not important
- [D] can be filed for SAR

- 38 During an ILS procedure, if the information transmitted by the appropriate services and received by the crew contains parameters below the crew's operational minimums, the point beyond which the approach must not be continued is: (1.00 P.)
- [A] the middle marker.
  - [B] the outer marker (OM).
  - [C] the FAF.
  - [D] the start final descent point (glide slope intersection).

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On the diagram where:

Nt = True North

Nm = Magnetic North

Ng = Grid North

If the magnetic variation is equal to  $65^{\circ}\text{W}$  and if the grid variation is equal to  $4^{\circ}\text{E}$ , the correct arrangement of the different north is: (1.00 P.)

Siehe Anlage 1

[A] 2

[B] 1

[C] 4

[D] 3

- 40 The aircraft is of Category A. The runway has edge lights and high intensity centre line lights. There is an accessible alternate aerodrome and the two pilot crew is IFR qualified on type. The minimum RVR / Visibility required for take-off is: (1.00 P.)
- [A] 200 m.
  - [B] 300 m.
  - [C] 150 m.
  - [D] 150 m if a threshold RVR is available.

- 41 In Item 10 of a flight plan form, the letters S, D and Z appear; this means that the following equipment is carried:  
(1.00 P.)
- [A] VHF, ADF, ILS, DME and Omega
  - [B] VHF, ADF, DME and Transponder
  - [C] VHF, ADF, VOR, ILS, DME, and other
  - [D] VOR,DME Only



- 42 An aircraft flies a VOR/DME direct approach for which the operational minima are: MDH = 360 feet, horizontal visibility = 1 500 metres:  
Visibility given by ATC and received by the crew is 2 500 metres:

The pilot may start the final approach... (1.00 P.)

- [A] regardless the ceiling given by ATC.
  - [B] if the ceiling transmitted by ATC and received by the crew is higher than 240 feet during the day and 360 feet at night.
  - [C] if the ceiling transmitted by ATC and received by the crew is higher than 360 feet.
  - [D] if the ceiling transmitted by ATC and received by the crew is higher than 240 feet.
- 43 A category C aeroplane can carry out a circling approach only if the meteorological visibility is higher than or equal to: (1.00 P.)
- [A] 3600 m
  - [B] 2400 m
  - [C] 1500 m
  - [D] 1600 m

- 44 In the event of an engine failure in a single engine helicopter in the cruise, the recommended sequence of immediate actions is: (1.00 P.)
- [A] lower collective, adjust yaw pedals, select airspeed, transmit mayday, autorotate to open ground, adjust speed for landing
  - [B] lower collective, counteract yaw with pedals, select attitude with cyclic, select landing site, transmit mayday, position helicopter for an into wind landing
  - [C] flare with cyclic, counteract yaw with pedals, establish descent with collective, select landing site, adjust collective for range, land into wind, transmit mayday
  - [D] correct yaw with pedals, lower collective, transmit mayday, select landing site, use cyclic and collective to position for landing

- 45 A category B aeroplane can carry out a circling approach only if the meteorological visibility is higher than or equal to: (1.00 P.)
- [A] 2400 m
  - [B] 1600 m
  - [C] 1500 m
  - [D] 3600 m
- 46 A category A aircraft can carry out an indirect approach followed by a visual manoeuvre only if the horizontal visibility is higher than or equal to: (1.00 P.)
- [A] 3600 m
  - [B] 2400 m
  - [C] 1500 m
  - [D] 1600 m

- 47 The enroute safe altitude must provide for obstacle clearance:  
(1.00 P.)
- [A] 5 km of the route centerline
  - [B] 5 nm of the route centerline
  - [C] 10nm of the Centre line
  - [D] 20 nm of the route centerline

- 48 During a conventional approach, the Minimum Descent Height (MDA) is referred to the runway threshold altitude and not to the aerodrome altitude if the runway threshold is at more than: (1.00 P.)
- [A] 4 m (14 ft) above the aerodrome altitude
  - [B] 2 m (7 ft) above the aerodrome altitude
  - [C] 2 m (7 ft) below the aerodrome altitude
  - [D] 4 m (14 ft) below the aerodrome altitude

- 49 If the rotor is overpitched, the corrective action is to: (1.00 P.)
- [A] reduce both engine power and collective pitch
  - [B] increase engine power and collective pitch
  - [C] reduce engine power and leave collective pitch constant
  - [D] reduce collective pitch and leave engine power constant
- 50 If ground resonance is encountered in a helicopter, the correct recovery action is:: (1.00 P.)
- [A] To shut down immediately, regardless of rotor RPM
  - [B] To take-off if rotor RPM sufficient, to shut down and apply rotor brake if rotor RPM insufficient
  - [C] To increase rotor RPM to take-off power and get airborne
  - [D] To apply pitch for take-off immediately, regardless of rotor RPM

- 51 A category III A precision approach (CAT III A) is an approach which may be carried out with a runway visual range of at least: (1.00 P.)
- [A] 250 m
  - [B] 100 m
  - [C] 50 m
  - [D] 200 m

- 52 You plan to fly from point A ( $60^{\circ}\text{N } 010^{\circ}\text{E}$ ) to point B ( $60^{\circ}\text{N } 020^{\circ}\text{E}$ ).  
The gyro North of the gyro compass, assumed to be operating perfectly, with no rate correction device, is aligned with the true North of point A.  
The constant gyro heading to be followed when starting from A given that the flight time scheduled is 1h30 min with a zero wind, is equal to: (1.00 P.)
- [A]  $076^{\circ}$ .
  - [B]  $080^{\circ}$ .
  - [C]  $066^{\circ}$ .
  - [D]  $085^{\circ}$ .



- 53 A category III B precision approach (CAT III B) is an approach which may be carried out with a runway visual range of at least: (1.00 P.)
- [A] 75 m
  - [B] 250 m
  - [C] 150 m
  - [D] 200 m

- 54 A polar stereographic chart has a grid printed over it which is parallel to the meridian  $054^{\circ}\text{W}$ , with Grid North in the direction of the North geographic pole. An aircraft is following a true course of  $330^{\circ}$ . At position  $80^{\circ}\text{N } 140^{\circ}\text{E}$ , its grid heading (GH) with this system will be: (1.00 P.)
- [A]  $136^{\circ}$ .
  - [B]  $276^{\circ}$ .
  - [C]  $164^{\circ}$ .
  - [D]  $316^{\circ}$ .

- 55 When establishing an instrument approach procedure, 5 aircraft categories according to their speed at the threshold ( $V_{at}$ ) are established. This speed is equal to the stalling speed in the landing configuration at the maximum certified landing mass multiplied by a factor of: (1.00 P.)
- [A] 1.45
  - [B] 1.3
  - [C] 1.15
  - [D] 1.5

- 56 To minimise the dangers of blade sailing: (1.00 P.)
- [A] the start-up and shut-down should be carried out facing directly into wind
  - [B] the start-up and shut-down should be carried out with the helicopter facing slightly out of wind
  - [C] ensure that rotor RPM during start-up or shut-down are increased or decreased as slowly as possible
  - [D] flapping restrictors, if fitted, should be withdrawn before start-up or shut-down

- 57 The aircraft is a single engine, IFR, category A with a cruising speed of 150 knots. The aircraft is flown by a single pilot. The usable runway has edge lights, high intensity runway centre lights and RVR readings for threshold mid and end of runway. The approach minimums for runway 06 are:  
DH = 300 feet,  
Horizontal visibility (HV) = 800 metres.  
The weather conditions are: horizontal visibility (HV) 900 metres and ceiling 200 feet.

Is take-off possible? (1.00 P.)

- [A] No, the ceiling being below the DH for the runway's approach procedure.
- [B] Yes, visibility being higher than the horizontal visibility for the approach procedure.
- [C] No, visibility being below 1 200 metres.
- [D] Yes, if there is an accessible airport within 75 NM.

- 58    Whilst on an IFR flight complete radio communication failure is experienced and the subsequent procedure is:  
      (1.00 P.)
- [A]    Avoid alternate aerodrome
  - [B]    continue flying in VMC if possible and land at the nearest suitable aerodrome
  - [C]    proceed to an alternate aerodrome with a known cloud base of at least 1000 feet
  - [D]    although flight is possible in VMC the flight may continue to the aerodrome of original destination

- 59 The aircraft is of Category A. The runway has edge lights and high intensity centre line lights. There is an accessible alternate aerodrome and the two pilot crew is IFR qualified on type. The minimum RVR / Visibility required for take-off is: (1.00 P.)
- [A] 200 m.
  - [B] 150 m if a threshold RVR is available.
  - [C] 150 m.
  - [D] 300 m.

- 60 Should a helicopter suffer from retreating blade stall in flight, to reduce the effects: (1.00 P.)
- [A] the cyclic control should be pulled back to decrease speed in a flare manoeuvre
  - [B] power should be reduced and collective pitch increased at once to reduce speed
  - [C] the collective pitch should be lowered to decrease pitch
  - [D] the cyclic control should be pushed forward to increase speed



- 61 The minimum height to fly above a proclaimed game reserve- (1.00 P.)
- [A] 20000 feet
  - [B] 11000 feet
  - [C] 1500 feet
  - [D] 2000 feet

62 The information to consider for a non precision straight in approach is:

1 - RVR/Visibility

2 - the ceiling

3 - the minimum descent altitude/height (MDA/H)

4 - the decision altitude/height (DA/H)

Which of the following combinations contains all of the correct statements? (1.00 P.)

[A] 1 - 2 - 3

[B] 1 - 3

[C] 1 - 4

[D] 1 - 2 - 4

- 63 At normal operating rotor RPM ground resonance can be prevented from developing to a critical point, if action is taken early enough, by: (1.00 P.)
- [A] avoiding any control input until all vibration has ceased
  - [B] compensating for helicopter movement with cyclic control
  - [C] applying the rotor brake as rapidly as possible
  - [D] applying collective pitch control and lifting off

- 64 For a twin-engine aeroplane, the standard operational take-off minimums may be used provided an alternate aerodrome is accessible at less than: (1.00 P.)
- [A] 30 minutes at cruising speed all engines running.
  - [B] 30 minutes at cruising speed with one engine unserviceable.
  - [C] 60 minutes at cruising speed all engines running.
  - [D] 60 minutes at cruising speed with one engine unserviceable.

- 65 Blade sailing, with the attendant possibility of a blade strike on the tail boom or rear fuselage, is most likely to occur: (1.00 P.)
- [A] during very low rotor RPM conditions, particularly whilst starting or stopping the rotor in gusty conditions
  - [B] when carrying out extreme manoeuvres involving or approaching zero "g"
  - [C] during an autorotative descent
  - [D] whilst hovering in strong winds

- 66 For a non pressurised aircraft, the supplemental oxygen is: (1.00 P.)
- [A] used for protection against smoke and carbon dioxide
  - [B] required to operate at pressure altitudes above 10 000 ft
  - [C] therapeutical oxygen specially carried for certain passengers
  - [D] available for supply to passengers for physiological reasons

- 67 During an ILS procedure, if the information transmitted by the appropriate services and received by the crew contains parameters below the crew's operational minimums, the point beyond which the approach must not be continued is: (1.00 P.)
- [A] the FAF.
  - [B] the start final descent point (glide slope intersection).
  - [C] the outer marker (OM).
  - [D] the middle marker.

- 68 A helicopter commander shall ensure that the amount of usable fuel remaining in flight is not less than the fuel required to proceed to a heliport where a safe landing can be made with: (1.00 P.)
- [A] final reserve fuel remaining
  - [B] 15 minutes of remaining fuel
  - [C] fuel to fly 20 minutes at best range speed
  - [D] fuel to hold 30 minutes at 1500 ft above the heliport



- 69 An aircraft flies a VOR/DME direct approach for which the operational minima are: MDH = 360 feet, horizontal visibility = 1 500 metres:  
Visibility given by ATC and received by the crew is 2 500 metres:

The pilot may start the final approach... (1.00 P.)

- [A] if the ceiling transmitted by ATC and received by the crew is higher than 240 feet during the day and 360 feet at night.
- [B] if the ceiling transmitted by ATC and received by the crew is higher than 240 feet.
- [C] if the ceiling transmitted by ATC and received by the crew is higher than 360 feet.
- [D] regardless the ceiling given by ATC.

- 70 On a polar stereographic chart whose grid is parallel with the Greenwich meridian in the direction of the true North pole, the "true" orientation of the great circle linking point  $62^{\circ}\text{N } 010^{\circ}\text{E}$  to point  $66^{\circ}\text{N } 050^{\circ}\text{W}$  is  $305^{\circ}$ . The grid route at the starting point of this great circle is: (1.00 P.)
- [A]  $298^{\circ}$ .
  - [B]  $295^{\circ}$ .
  - [C]  $292^{\circ}$ .
  - [D]  $301^{\circ}$ .

- 71 In a 5 kt right crosswind component behind a taking off aircraft: (1.00 P.)
- [A] The right and left wake turbulence stays approximately on the runway.
  - [B] The left wake turbulence stays approximately on the runway.
  - [C] The right wake turbulence stays approximately on the runway.
  - [D] The runway will be clear of any hazard turbulence.

- 72 The operator shall include in the operations manual a minimum equipment list which shall be approved by the authority of: (1.00 P.)
- [A] The country where the aircraft is operated.
  - [B] The country of the operator.
  - [C] The country where the aircraft was manufactured.
  - [D] None, no approval is required.

- 73 During a special VFR flight, the minimum visibility required by KCAR's OPS is:  
(1.00 P.)
- [A] 2.500 meters
  - [B] 1.500 meters or more
  - [C] 5.000 meters
  - [D] 3.000 meters

74 Noise attenuation shall not be the determining factor in the designation of a runway, under the following circumstances:

1. when cross wind component, including gust, exceeds 15 knots.
2. when the tail wind component, including gust, exceeds 5 knots.
3. when the runway is not clear or dry.

The combination regrouping all the correct statements is: (1.00 P.)

- [A] 1,2.
- [B] 1,2,3.
- [C] 1,3.
- [D] 2,3.

- 75 In accordance with KCARs, (Aerodrome Operating Minima - General), it is established, among other considerations, that an Operator must take full account of Aeroplane Categories.
- The criteria taken into consideration for classification of Aeroplanes by Categories is the indicated airspeed at threshold ( $V_{at}$ ), which is equal to the stalling speed at the maximum landing mass ( $V_{so}$ ) multiplied by 1,3.
- Corresponding Aeroplane Category when  $V_{at}$  is from 141 kt to 165 kt is: (1.00 P.)
- [A] D
  - [B] C
  - [C] B
  - [D] E

- 76 If no meteorological information is available for the destination, the commander of a helicopter must: (1.00 P.)
- [A] not take-off until getting meteorological forecast
  - [B] select two destination alternatives
  - [C] take extra fuel to fly one hour at holding speed, 1500 ft above the alternate heliport
  - [D] take extra fuel to fly two hours at holding speed



- 77 An applicant for an Instrument rating, who is the holder of a multi-engine class rating shall inter alia: (1.00 P.)
- [A] have completed not less than 30 hours of Instrument time, of which not more than 10 hours may have been acquired on simulators approved by the Director for Civil Aviation
  - [B] have completed not less than 40 hours of Instrument time, of which not more than 20 hours may have been acquired on simulators approved by the Director for Civil Aviation
  - [C] have completed not less than 30 hours of Instrument time, of which not more than 30 hours may have been acquired on simulators approved by the Director for Civil Aviation
  - [D] None of these answers

- 78 If smoke appears in the air conditioning, the first action to take is to: (1.00 P.)
- [A] Begin an emergency descent.
  - [B] Determine which system is causing the smoke.
  - [C] Put on the mask and goggles.
  - [D] Cut off all air conditioning units.

- 79 Viscous hydroplaning occurs primarily if the runway is covered with a thin film of water and: (1.00 P.)
- [A] the runway has a rough surface.
  - [B] the runway is very smooth and dirty.
  - [C] the runway is very smooth and clean.
  - [D] the tyre treads show minor cuts.

- 80 The amount of fuel to be carried by a helicopter for IFR flight, when no alternate is required, should include a final reserve fuel of quantity to fly : (1.00 P.)
- [A] 30 minutes at best range speed
  - [B] 30 minutes at holding speed at 1500 ft above the destination, in standard conditions
  - [C] 20 minutes at best range speed
  - [D] 20 minutes at holding speed at 1500 ft above the destination, in standard conditions

- 81 Initially, who is responsible for ensuring that cargo for air transportation as dangerous goods is not prohibited? (1.00 P.)
- [A] The operator.
  - [B] It is not specified.
  - [C] The shipper when completing the shipper's declaration for dangerous goods.
  - [D] The commander, always using the list of prohibited items.

- 82 The touch down areas located at both ends of the runways are typical for the appearance of: (1.00 P.)
- [A] rubber steaming hydroplaning.
  - [B] dynamic hydroplaning.
  - [C] viscous hydroplaning.
  - [D] rubber reversion hydroplaning.

- 83 The chart in question is of the polar stereographic type with its grid parallel to the zero meridian, and Grid North in the direction of the North geographic pole. The gyro does not comprise a rate correction device.
- The gyro-magnetic compass of an aircraft standing at an aerodrome located at  $59^{\circ}57'N$   $010^{\circ}30'E$  is switched to free gyro mode at 14.00 UTC, with gyro North being aligned with Grid North and the gyro heading reading  $120^{\circ}$ . A technical problem delays take off until 16.30 UTC. The gyro, whose mechanical precession is zero, was not reset prior to take off.
- The error (E) at the time of alignment on this runway will be: (1.00 P.)
- [A]  $+32.5^{\circ}$ .
  - [B]  $-32.5^{\circ}$ .
  - [C]  $+73.5^{\circ}$ .
  - [D]  $+13^{\circ}$ .

- 84 The amount of fuel to be carried by a helicopter on a VFR flight navigating by day with reference to visual landmarks should include a final reserve fuel of quantity to fly : (1.00 P.)
- [A] 20 minutes at best range speed
  - [B] 30 minutes at holding speed at 1500 ft above the destination heliport
  - [C] 20 minutes at holding speed at 1500 ft above the destination heliport
  - [D] 30 minutes at best range speed



85 The wake turbulence is most severe when the aircraft is:

1. slow
2. heavy
3. in a clean configuration
4. flying with a high thrust

The combination of correct statement is: (1.00 P.)

- [A] 2, 3, 4
- [B] 1, 4
- [C] 1, 2, 3, 4
- [D] 1, 2, 3

- 86 If a pilot has connected the automatic pilot to the gyro compass (which is assumed to be operating correctly) and the latter is fitted with a rate correction device which is properly corrected by astronomical precession, the course followed by the aircraft (in still air conditions) is a: (1.00 P.)
- [A] rhumb line.
  - [B] curve of some type or other.
  - [C] great circle.
  - [D] spherical flight segment.

- 87 The amount of fuel to be carried by a helicopter on a VFR flight in a non-hostile environment should include contingency fuel of: (1.00 P.)
- [A] 5% of the planned trip fuel
  - [B] quantity to fly 30 minutes at best range speed
  - [C] 10% of the planned trip fuel
  - [D] quantity to fly 20 minutes at best range speed

88 The M.E.L. (Minimum Equipment List) is produced by: (1.00 P.)

- [A] the operator
- [B] the manufacturer
- [C] the state of the operator
- [D] the aircraft state of registry

- 89 On a polar stereographic chart where the earth convergence between 2 points located on the parallel 60°N is 20°, the great circle maximum cross-track difference with the straight line joining the 2 points is: (1.00 P.)
- [A] 4.0 NM.
  - [B] 4.0 NM.
  - [C] 30 NM.
  - [D] 9.2 NM.

- 90 The pre-flight fuel calculation, for a helicopter on an IFR flight should include contingency fuel quantity: (1.00 P.)
- [A] to fly 30 minutes at best range speed
  - [B] of 5% of the planned trip fuel
  - [C] to fly 20 minutes at best range speed
  - [D] of 10% of the planned trip fuel

- 91 The dangerous goods transport document, if required, shall be drawn up by: (1.00 P.)
- [A] the shipper.
  - [B] the operator.
  - [C] the captain.
  - [D] the handling agent.

- 92 In a polar Antarctic regions, the pilot uses a South polar stereographic chart whose printed over grid is parallel with the zero meridian and Grid North in the direction of geographic North along this meridian.  
The aircraft position is  $80^{\circ}\text{S } 130^{\circ}\text{E}$ , its true route is  $110^{\circ}$ , the grid route at this moment is: (1.00 P.)
- [A]  $340^{\circ}$ .
  - [B]  $110^{\circ}$ .
  - [C]  $060^{\circ}$ .
  - [D]  $240^{\circ}$ .



- 93 A helicopter with a Maximum take-off mass exceeding 5 700 kg conducting Helicopter Emergency Medical Service shall be operated in accordance with: (1.00 P.)
- [A] performance class 1 at night, 1 or 2 by daylight
  - [B] performance class 1
  - [C] any class of performance due to the emergency situation
  - [D] performance class 1 or 2

- 94 During a landing approach, the aircraft is subjected to windshear with an increasing tail wind. In the absence of a pilot action, the aircraft:

- 1- flies above the glide path
- 2- flies below the glide path
- 3- has an increasing true airspeed
- 4- has a decreasing true airspeed

The combination of correct statements is: (1.00 P.)

- [A] 2,3.
- [B] 1,4.
- [C] 1,3.
- [D] 2,4.

- 95 To use passengers oxygen in case of severe cabin smoke is: (1.00 P.)
- [A] useless because breathing oxygen would explode under smoke conditions.
  - [B] possible and recommended.
  - [C] useless because the toxical cabin smoke is mixed with the breathing oxygen.
  - [D] useless because the oxygen units do not operate under smoke conditions.

- 96 During a landing approach, the aircraft is subjected to windshear with an increasing head wind. In the absence of a pilot action, the aircraft:

- 1- flies above the glide path
- 2- flies below the glide path
- 3- has an increasing true airspeed
- 4- has a decreasing true airspeed

The combination of correct statements is: (1.00 P.)

- [A] 2,3.
- [B] 2,4.
- [C] 1,4.
- [D] 1,3.

- 97 During a landing approach, the aircraft is subjected to windshear with a decreasing head wind. In the absence of a pilot action, the aircraft:

- 1. flies above the glide path
- 2. flies below the glide path
- 3. has an increasing true airspeed
- 4. has a decreasing true airspeed

The combination of correct statements is: (1.00 P.)

- [A] 2,3
- [B] 1,4
- [C] 1,3
- [D] 2,4

- 98 An aircraft leaves point P ( $60^{\circ}\text{N } 030^{\circ}\text{W}$ ) on a true heading equal to  $090^{\circ}$  while the gyro compass, which is assumed to be operating perfectly and without an hourly rate corrector unit, indicates  $000^{\circ}$ .  
The aircraft arrives at point Q ( $62^{\circ}\text{N } 010^{\circ}\text{W}$ ) on a true heading equal to  $095^{\circ}$ . On the journey from P to Q the gyro compass remains in free gyro mode.  
If the flight lasted 1 hour 30 minutes, the gyro heading at Q will be: (1.00 P.)
- [A]  $328^{\circ}$ .
  - [B]  $334^{\circ}$ .
  - [C]  $345^{\circ}$ .
  - [D]  $003^{\circ}$ .

- 99 Fire fighting in the toilets must be performed with: (1.00 P.)
- [A] all available extinguishers in sequence.
  - [B] only the extinguisher corresponding to the toilets.
  - [C] all available extinguishers simultaneously.
  - [D] all available liquids.

- 100 During a landing approach, the aircraft is subjected to windshear with a decreasing tail wind. In the absence of a pilot action, the aircraft:

- 1- flies above the glide path
- 2- flies below the glide path
- 3- has an increasing true airspeed
- 4- has a decreasing true airspeed

the combination of correct statements is: (1.00 P.)

- [A] 1,3.
- [B] 2,3.
- [C] 2,4.
- [D] 1,4.

- 101 After take-off, an aircraft is subjected to windshear with a decreasing head wind. In the absence of a pilot action, the aircraft:

- 1- flies above the climb-out path
- 2- flies below the climb-out path
- 3- has an increasing true airspeed
- 4- has a decreasing true airspeed

The combination of correct statements is: (1.00 P.)

- [A] 1,4.
- [B] 2,3.
- [C] 1,3.
- [D] 2,4.

- 102 After a landing, with overweight and overspeed conditions, the tyres and brakes are extremely hot. The fireguards should approach the landing gear tyres: (1.00 P.)
- [A] only from front or rear side.
  - [B] only from left or right side.
  - [C] under no circumstances.
  - [D] from any side.



- 103 The recent experience conditions of a commander assigned to a flight on an aircraft by an operator must not be less than: (1.00 P.)
- [A] 6 take-offs and 6 landings as pilot flying on the same type of aircraft or approved simulator
  - [B] 3 take-offs and 3 landings as pilot flying on the same type of aircraft or approved simulator in the preceding 90 days
  - [C] 3 take-offs and 3 landings on this type of aircraft during the last 6 months
  - [D] 6 take-offs and 6 landings during the last 6 months

104 The regulatory green navigation light is located on the starboard side with a coverage angle of: (1.00 P.)

- [A] 110°.
- [B] 220°.
- [C] 70°.
- [D] 140°.

105 Each crew member shall be properly secured by all safety belts and harnesses provided

- 1 - during taxiing
- 2 - during take-off
- 3 - during landing
- 4 - whenever deemed necessary by the commander in the interest of safety
- 5 - during other phases of the flight, while at their station.

The combination regrouping all the correct statements is: (1.00 P.)

- [A] 1, 2, 3, 4
- [B] 1, 2, 3, 4, 5
- [C] 2, 3, 4
- [D] 1, 2, 3, 5

- 106 Information concerning emergency evacuation procedures shall be found in the:  
(1.00 P.)
- [A] flight manual.
  - [B] journey logbook.
  - [C] operational flight plan.
  - [D] operations manual.

- 107 A list of dangerous goods, which may not be transported by air, can be found in:  
(1.00 P.)
- [A] Annex 18 to the Chicago Convention.
  - [B] Annex 6 to the Chicago Convention.
  - [C] the shipper's declaration for dangerous goods.
  - [D] the technical instructions for the safe transport of dangerous goods by air.

- 108 In a 5 kt right crosswind component behind a taking off aircraft: (1.00 P.)
- [A] The right and left wake turbulence stays approximately on the runway.
  - [B] The right wake turbulence stays approximately on the runway.
  - [C] The runway will be clear of any hazard turbulence.
  - [D] The left wake turbulence stays approximately on the runway.

- 109 A pilot is using a polar stereographic chart whose grid is parallel to the zero meridian, with Grid North in the direction of the North geographic pole. In polar regions, the pilot stops navigation in free-gyro mode after leaving the 6 microteslas zone, and the grid heading controlled by information from the inertial navigation system (INS) is  $045^\circ$ . After switching to "magnetic mode", the compass heading is  $220^\circ$ . The INS position at this moment is  $76^\circ\text{N } 180^\circ\text{W}$ . The magnetic variation on the chart is  $10^\circ\text{E}$ . The compass deviation at this heading is: (1.00 P.)
- [A]  $-15^\circ$ .
  - [B]  $+15^\circ$ .
  - [C]  $-5^\circ$ .
  - [D]  $+5^\circ$ .

- 110 To avoid wake turbulence, when departing behind a larger aircraft, the pilot should manoeuvre: (1.00 P.)
- [A] Above and downwind from the larger aircraft
  - [B] Below and downwind from the larger aircraft
  - [C] Below and upwind from the larger aircraft
  - [D] Above and upwind from the larger aircraft

- 111 The coverage angle of the regulatory white navigation / position lights, located to the rear of the aircraft, is: (1.00 P.)
- [A] 70°
  - [B] 140°
  - [C] 220°
  - [D] 110°
- 112 During a night flight, an observer located in the cockpit, seeing an aircraft coming from front right on approximate opposite parallel track, will first see the: (1.00 P.)
- [A] red light
  - [B] white light
  - [C] red and white flashing light
  - [D] green light



- 113 Who shall be satisfied, before flight, that the aircraft's weight is such that flight can be safely made, and that any transported cargo is properly distributed and secured? (1.00 P.)
- [A] The operator.
  - [B] The commander.
  - [C] The airline's dispatcher.
  - [D] The flight engineer.
- 
- 114 For a twin-engine aeroplane, non ETOPS, the take-off alternate, if required, shall be located (in still air conditions) within: (1.00 P.)
- [A] two hours of flight time at cruising speed all engines operating.
  - [B] one hour of flight time, at cruising speed with only one engine operative.
  - [C] one hour of flight time at cruising speed all engines operating.
  - [D] two hours of flight time, at cruising speed with only one engine operative.

- 115 During a night flight, an observer located in the cockpit, seeing an aircraft coming from front left on approximate opposite parallel track, will first see the: (1.00 P.)
- [A] red steady light
  - [B] green steady light
  - [C] green and white flashing light
  - [D] white steady light

- 116 On board a non-pressurized aircraft, the crew and all the passengers must be fed with oxygen throughout the flight period during which the pressure altitude is greater than: (1.00 P.)
- [A] 12 000 ft
  - [B] 13 000 ft
  - [C] 10 000 ft
  - [D] 11 000 ft
- 117 On board a non-pressurised aircraft, 10% of the passengers shall be supplied with oxygen throughout the entire flight time, after 30 minutes at pressure altitude greater than: (1.00 P.)
- [A] 11 000 ft but not exceeding 13 000 ft
  - [B] 11 000 ft but not exceeding 12 000 ft
  - [C] 10 000 ft but not exceeding 13 000 ft
  - [D] 10 000 ft but not exceeding 12 000 ft

118 The coverage angle of the red navigation / position light is: (1.00 P.)

[A] 110°

[B] 220°

[C] 140°

[D] 70°

- 119 The Master Minimum Equipment List (MMEL) defines the equipment which can be inoperative when undertaking a flight and the conditions under which this allowance can be accepted. This MMEL is drawn up by: (1.00 P.)
- [A] the operator and approved by the certification authority
  - [B] the manufacturer and approved by the certification authority
  - [C] the operator from a main list drawn up by the manufacturer
  - [D] the operations manual

- 120 A commander shall not take-off for an IFR flight unless information is available indicating that the expected weather conditions at the destination and/or required alternate aerodrome(s) are: (1.00 P.)
- [A] At the estimated time of arrival, at or above the planning minima.
  - [B] during a period from 1 hour before to 1 hour after the estimated time of arrival at the aerodrome, at or above the planning minima.
  - [C] At the estimated time of arrival better than the minimum conditions required for aerodrome use.
  - [D] At the estimated time of arrival, and for a reasonable period before and after such a predicted time, equal to or better than the minimum conditions required for aerodrome use.

121 The correct definition of a safe forced landing is:

(1.00 P.)

- [A] a landing on land or sea from which it is guaranteed no injuries will result to the occupants
- [B] a voluntary landing on land or sea carried out by the crew in order to protect the aircraft and its occupants
- [C] an inevitable landing on land or sea from which one may reasonably expect no injuries on board or on the surface
- [D] an inevitable landing on land or sea from which one may reasonably expect no injuries on board

- 122 When refuelling is being performed while passengers are boarding or disembarking the aircraft, one of the requirements is: (1.00 P.)
- [A] The ground area beneath the exits intended for emergency evacuation and slide deployment areas must be kept clear.
  - [B] The aircraft's stairs be completely extended.
  - [C] All flight crew shall remain at their station.
  - [D] Refuelling is prohibited while passengers are boarding and/or disembarking.



- 123 The Minimum Equipment List (MEL) defines the equipment which can be inoperative when undertaking a flight and the additional procedures under which this allowance can be accepted . The Mel is drawn up by: (1.00 P.)
- [A] the manufacturer and may be more restrictive than the Master Minimum Equipment List (MMEL)
  - [B] the operator and may be less restrictive than the Master Minimum equipment List (MMEL)
  - [C] the operator and may be more restrictive than the Master Minimum Equipment List (MMEL)
  - [D] the manufacturer and may be less restrictive than the Master Minimum equipment List (MMEL)

- 124 Tip vortices which are responsible for wake turbulence appear as soon as the following is established: (1.00 P.)
- [A] spin up
  - [B] lift
  - [C] drag
  - [D] lift destruction

- 125 One of the main characteristics of windshear is that it: (1.00 P.)
- [A] occurs only at a low altitude ( 2000 ft) and never in the horizontal plane
  - [B] occurs only at a low altitude ( 2000 ft) and never in the vertical plane
  - [C] can occur at any altitude and only in the horizontal plane
  - [D] can occur at any altitude in both the vertical and horizontal planes
- 126 Which parameter will change first, when penetrating an horizontal windshear ? (1.00 P.)
- [A] Pitch angle.
  - [B] Indicated airspeed.
  - [C] Groundspeed.
  - [D] Vertical speed.

127 If the EPR probe becomes covered with ice, EPR indications will be: (1.00 P.)

- [A] Greater than the actual.
- [B] Equal to the actual.
- [C] Not available.
- [D] Less than the actual.

128 070-001.jpg

On the diagram where:

Nt = True North

Nm = Magnetic North

Ng = Grid North

If the magnetic variation is equal to  $65^{\circ}\text{W}$  and if the grid variation is equal to  $4^{\circ}\text{E}$ , the correct arrangement of the different north is: (1.00 P.)

Siehe Anlage 2

[A] 4

[B] 1

[C] 3

[D] 2

129 Wake turbulence risk is highest: (1.00 P.)

- [A] if, just before landing a much lighter aircraft has landed at the same runway with heavy crosswind.
- [B] when a preceding aircraft has briefly applied take-off thrust just prior to take off.
- [C] following a preceding aircraft at high speed.
- [D] when a heavy aircraft has just performed a take-off at a closely situated parallel runway with a light crosswind.

- 130 The correct statement about extinguishing agents on board aeroplanes is: (1.00 P.)
- [A] Halon is an effective extinguishing agent for use in aeroplanes.
  - [B] Water may only be used for minor fires.
  - [C] A powder extinguisher is suitable for extinguishing a cockpit fire.
  - [D] Burning cargo in a cargo-aeroplane is usually extinguished by using carbon dioxide.

- 131 What is the transponder code to be used by the commander of an aircraft that is subject to unlawful interference (hijacked) ?: (1.00 P.)
- [A] A 7800
  - [B] A 7700
  - [C] A 7500
  - [D] A 7600



132 The regulations for transportation of dangerous goods are contained in: (1.00 P.)

- [A] ICAO Appendix 8
- [B] the Washington Convention
- [C] ICAO Annex 18
- [D] ICAO Annex 17

- 133 Unintentional over-pitching is likely to occur: (1.00 P.)
- [A] when commencing a flare
  - [B] as a result of excessive cyclic movement
  - [C] at low airspeed in a transition to or from the hover
  - [D] after attaining effective translational lift

- 134 Which statement is correct about noise abatement procedures during landing ?  
(1.00 P.)
- [A] These procedures prohibit the use of reverse thrust .
  - [B] These procedures are applied in case of instrument approach only.
  - [C] These procedures shall not prohibit the use of reverse thrust.
  - [D] There are no noise abatement procedures for landing.

- 135 Which of the following requirements should be met when planning a flight with icing conditions: (1.00 P.)
- [A] The aircraft shall before flight be sprayed with anti-icing fluid
  - [B] The flight should be planned so that a change of cruising level can be initiated rapidly
  - [C] The aircraft shall be equipped with approved ice-protection systems
  - [D] A meteorologist shall decide whether the flight may be performed without ice-protection systems

- 136 You plan to fly from point A ( $60^{\circ}\text{N } 010^{\circ}\text{E}$ ) to point B ( $60^{\circ}\text{N } 020^{\circ}\text{E}$ ).  
The gyro North of the gyro compass, assumed to be operating perfectly, with no rate correction device, is aligned with the true North of point A.  
The constant gyro heading to be followed when starting from A given that the flight time scheduled is 1h30 min with a zero wind, is equal to: (1.00 P.)
- [A]  $066^{\circ}$ .
  - [B]  $080^{\circ}$ .
  - [C]  $085^{\circ}$ .
  - [D]  $076^{\circ}$ .

137 Noise attenuation shall not be the determining factor in the designation of a runway, under the following circumstances:

1. when cross wind component, including gust, exceeds 15 knots.
2. when the tail wind component, including gust, exceeds 5 knots.
3. when the runway is not clear or dry.

The combination regrouping all the correct statements is: (1.00 P.)

- [A] 2,3.
- [B] 1,2,3.
- [C] 1,3.
- [D] 1,2.

138 Just after take-off an aircraft encounters a "microburst" situated directly ahead.  
The initial indications will be:

- 1 - an increase in head wind
- 2 - an increase in tail wind
- 3 - better climb performance
- 4 - a decrease in climb gradient

The combination regrouping all the correct statements is: (1.00 P.)

- [A] 1, 4
- [B] 1, 3
- [C] 2, 3
- [D] 2, 4

- 139 If smoke appears in the air conditioning, the first action to take is to: (1.00 P.)
- [A] Put on the mask and goggles.
  - [B] Determine which system is causing the smoke.
  - [C] Cut off all air conditioning units.
  - [D] Begin an emergency descent.



- 140 The application of a type II anti-icing fluid on an aircraft on the ground will provide a: (1.00 P.)
- [A] protection time up to 24 hours.
  - [B] limited holdover time.
  - [C] limited time of protection independent of the outside temperature.
  - [D] protection against icing for the duration of the flight.

- 141 In a ditching situation, except for infants, the passengers shall be instructed to inflate their life jackets: (1.00 P.)
- [A] immediately on ditching.
  - [B] immediately on the opening of the exits.
  - [C] as soon as ditching is prepared.
  - [D] when exiting the aircraft.

142 Malfunctioning of the automatic pressurization system is indicated by:

1. a change in environmental sounds.
2. the cabin altitude gauge indicates an abnormal rate of climb.
3. the differential pressure between the exterior and the interior of the aircraft decreases.

The combination regrouping all the correct statements is: (1.00 P.)

- [A] 1, 2, 3.
- [B] 1, 2.
- [C] 1, 3.
- [D] 2, 3.

- 143 An aircraft whose maximum approved seating configuration is 10 seats must be equipped with: (1.00 P.)
- [A] three hand fire-extinguishers in the passengers compartment.
  - [B] one hand fire-extinguisher in the cockpit/flight deck and one hand fire-extinguisher in the passengers compartment.
  - [C] one hand fire-extinguisher in the cockpit/flight deck and two hand fire-extinguishers in the passengers compartment.
  - [D] two hand fire-extinguishers in the cockpit/flight deck and two hand fire-extinguishers in the passengers compartment.

- 144 ICAO (International Civil Aviation Organization) Appendix 18 is a document dealing with: (1.00 P.)
- [A] the noise pollution of aircraft
  - [B] the technical operational use of aircraft
  - [C] the safety of the air transport of dangerous goods
  - [D] the air transport of live animals
- 145 Initially, who is responsible for ensuring that cargo for air transportation as dangerous goods is not prohibited? (1.00 P.)
- [A] The operator.
  - [B] It is not specified.
  - [C] The shipper when completing the shipper's declaration for dangerous goods.
  - [D] The commander, always using the list of prohibited items.

146 The protection time of an anti-icing fluid depends on:

1. the type and intensity of the showers
2. the ambient temperature
3. the relative humidity
4. the direction and speed of the wind
5. the temperature of the aircraft skin
6. the type of fluid, its concentration and temperature

The combination regrouping all the correct statements is: (1.00 P.)

- [A] 2, 3, 4, 5
- [B] 1, 2, 4, 6
- [C] 1, 2, 3, 4, 5, 6
- [D] 1, 3, 5, 6

- 147 When taking-off behind a heavy aircraft, with the wind coming from the right side, you adopt, whenever possible: (1.00 P.)
- [A] an identical flight path to the one of the preceding aircraft.
  - [B] a different flight path from the preceding aircraft, by remaining to the right of and above its path.
  - [C] a different flight path from the preceding aircraft, by remaining to the left of and under its path.
  - [D] a different flight path from the preceding aircraft, by remaining behind it and under its path.

- 148 When a course is plotted at minimum time track, one passes from the air isochrone to the corresponding ground isochrone by applying to the air isochrone a vector which is equal to: (1.00 P.)
- [A] wind at K.
  - [B] mean wind from the preceding ground isochrone.
  - [C] wind at K'.
  - [D] mean wind up to the next ground isochrone.



149 A passenger is allowed to carry match-boxes:

1. on himself/herself
2. in his/her hand luggage
3. in his/her checked luggage

The combination regrouping all the correct statements is: (1.00 P.)

- [A] 1, 2, 3
- [B] 1, 2
- [C] 2, 3
- [D] 1

- 150 For a given aeroplane, the wake turbulence increases when the aeroplane has a:  
(1.00 P.)
- [A] low mass and high airspeed
  - [B] low mass and low airspeed
  - [C] high mass and low airspeed
  - [D] high mass and high airspeed

- 151 A public transport aeroplane is intended to be operated at FL 370. The cabin is fitted with 180 passenger seats. The minimum number of cabin oxygen masks (dispensing units) required for this aeroplane is: (1.00 P.)
- [A] 198 (110% of the seating capacity).
  - [B] 210 (one additional mask per seat row).
  - [C] 270 (150% of the seating capacity).
  - [D] 240 (one additional mask per seat block).

152 As a result of an in-flight fuel check, the expected fuel remaining on arrival is less than the required alternate fuel plus final reserve fuel.

The commander may permit alternate fuel to be used before landing at the destination, provided that, at on shore destination: (1.00 P.)

- [A] separate touchdown and lift-off areas are available and weather conditions are above the planning minima
- [B] latest forecast indicates that, at the expected time of arrival, the weather conditions are above the planning minima
- [C] the appropriate weather reports or forecasts indicates that, during a period commencing 1 hour before and ending 1 hour after the estimated time of arrival, the weather conditions are above the planning minima
- [D] two independent runways are available and expected weather conditions are such that ceiling is 500 ft above MDA and above 1500 ft above airport elevation

- 153 After an accident, the operator of an aircraft equipped with a flight recorder must keep the original recordings for a minimum period of: (1.00 P.)
- [A] 60 days.
  - [B] 45 days.
  - [C] 90 days.
  - [D] 30 days.

- 154 For a pressurised aircraft, the first-aid oxygen is designed to: (1.00 P.)
- [A] protect all the occupants against the effects of accidental depressurisation.
  - [B] protect the flight crew and cabin attendants against fumes and noxious gases.
  - [C] provide undiluted oxygen to passengers for physiological reasons following a cabin depressurisation.
  - [D] provide oxygen to 10% of passengers at a cabin altitude exceeding 13000 ft after 30 minutes.

- 155 The commander is required by the authority to present the aircraft documents. He (1.00 P.)
- [A] shall do so, within a reasonable period of time.
  - [B] can refuse to present them.
  - [C] shall do so if authorised by the operator.
  - [D] can request a delay of 48 hours.

- 156 The holdover time of an anti-icing procedure, for a given ambient temperature, will be longest in weather conditions of: (1.00 P.)
- [A] freezing fog
  - [B] frost
  - [C] rain on a cold soaked wing
  - [D] steady snow



- 157 A commercial aeroplane is scheduled to be operated at FL 390 and has the following characteristics:  
Maximum approved passenger seating configuration = 230  
Number of seats on board= 200  
Scheduled number of passengers on board= 180  
The minimum number of oxygen dispensing units provided in the aeroplane cabin compartment should be: (1.00 P.)
- [A] 200.
  - [B] 220.
  - [C] 180.
  - [D] 230.

- 158 At any ambient temperature up to + 30° C and with a relative humidity as low as 40 %, in clear air, free of fog and precipitation, serious carburettor icing: (1.00 P.)
- [A] cannot occur
  - [B] can occur, but only at full power or cruise settings
  - [C] can occur at any setting
  - [D] can occur, but only at a low power setting

- 159 Above which flight level do the regulations require a quick donning type of oxygen mask for the flight crew in a pressurized aircraft ? (1.00 P.)
- [A] FL 100.
  - [B] FL 250.
  - [C] FL 300.
  - [D] FL 390.

- 160 Which of the following weather conditions will give the shortest holdover time for a given ambient temperature and type of anti-icing fluid? (1.00 P.)
- [A] Freezing fog
  - [B] Steady snow
  - [C] Light freezing rain
  - [D] Frost

- 161 Which one of the following sets of conditions is the least likely to attract flocks of birds ? (1.00 P.)
- [A] short gang-mown grass
  - [B] long grass
  - [C] edible rubbish
  - [D] an area liable to flooding

- 162 An aeroplane is operated over water at a distance of 340 NM away from an aerodrome where an emergency landing could be performed. Normal cruising speed is 180 kt. One engine out airspeed is 155 kt, and it is capable to join the diversion aerodrome. (1.00 P.)
- [A] Life jackets must be available for all occupants.
  - [B] Life rafts must be available for all occupants.
  - [C] The regulation does not require life jackets or rafts to be taken on board in this particular case.
  - [D] Life jackets and rafts must be available for all occupants.

- 163 Which one of the following sets of conditions is most likely to attract birds to an aerodrome ? (1.00 P.)
- [A] modern and close sewage treatment centre in close proximity
  - [B] the extraction of minerals such as sand and gravel
  - [C] maintaining the grass on the airfield
  - [D] a opened refuse tip in close vicinity

- 164 Following an act of unlawful interference on board an aircraft, the commander should submit a report to: (1.00 P.)
- [A] the local authority only
  - [B] both the local authority and the Authority of the State of the operator
  - [C] the Authority of the State within which the aircraft is operating at the time of the unlawful interference
  - [D] the Authority of the State of the operator only



- 165 An operator shall not operate an aeroplane unless it is equipped with a cockpit voice recorder which starts to record automatically: (1.00 P.)
- [A] when the parking brake is released until the termination of flight when the parking brake is set.
  - [B] when full thrust is applied until the termination of the flight when the aeroplane is no longer capable of moving under its own power.
  - [C] prior to the aeroplane moving under its own power until the termination of the flight when the aeroplane is no longer capable of moving under its own power.
  - [D] prior to the aeroplane moving under its own power until the termination of flight when the parking brake is set.

- 166 What transponder code should be used to provide recognition of an aircraft which is being subjected to unlawful interference: (1.00 P.)
- [A] code A 7600
  - [B] code A 7700
  - [C] code A 2000
  - [D] code A 7500

- 167 In icing conditions, if you have exceeded the holdover time, the correct procedure is to: (1.00 P.)
- [A] operate the aircraft de-icing/anti-icing systems.
  - [B] de-ice the aircraft.
  - [C] de-ice again the aircraft, then apply anti-icing fluid.
  - [D] apply directly anti-icing fluid without conducting previous de-icing procedures.

- 168 A polar stereographic chart has a grid printed over it which is parallel to the meridian  $054^{\circ}\text{W}$ , with Grid North in the direction of the North geographic pole. An aircraft is following a true course of  $330^{\circ}$ . At position  $80^{\circ}\text{N } 140^{\circ}\text{E}$ , its grid heading (GH) with this system will be: (1.00 P.)
- [A]  $164^{\circ}$ .
  - [B]  $136^{\circ}$ .
  - [C]  $316^{\circ}$ .
  - [D]  $276^{\circ}$ .

169 The wake turbulence is the most severe when the aircraft is:

1. slow
2. heavy
3. in a clean configuration
4. flying with a high thrust

The combination of correct statement is: (1.00 P.)

- [A] 1, 2, 3
- [B] 2, 3, 4
- [C] 1, 2, 3, 4
- [D] 1, 4

- 170 Where dangerous goods are carried on a flight which takes place wholly or partly outside the territory of a State, which language must be used on the transport document in addition to any other language ? (1.00 P.)
- [A] French
  - [B] English, French, Spanish, Russian, Chinese
  - [C] Spanish
  - [D] English
- 171 In compliance with KCARs and ICAO annex 18, in order to carry dangerous goods on board a public transport aircraft, they must be accompanied with a: (1.00 P.)
- [A] specialized handling employee.
  - [B] transport document for dangerous goods.
  - [C] system to warn the crew in case of a leak or of an abnormal increase in temperature.
  - [D] representative of the company owning the goods.
- 172 The general information, instructions and recommendations on the transport of dangerous goods are specified in the: (1.00 P.)
- [A] AIP (Aeronautical Information Publication).
  - [B] air operator certificate.
  - [C] operations manual.
  - [D] flight manual.

- 173 The MNPS (Minimum Navigation Performance Specification) airspace extends vertically between flight levels: (1.00 P.)
- [A] 280 and 400.
  - [B] 280 and 390.
  - [C] 275 and 400.
  - [D] 285 and 420.

- 174 The commander shall not commence take-off in icing conditions: (1.00 P.)
- [A] even if the ice contamination does not lead to an exceedence of mass and balance limits.
  - [B] unless the external surfaces are still covered with anti-icing fluid and the aircraft is not to be operated in forecasted icing conditions greater than moderate icing.
  - [C] unless the external surfaces are clear of any contamination, except as permitted by Aircraft Flight Manual.
  - [D] unless the external surfaces are free from any ice contamination greater than 5 mm.
- 175 After anti-icing has been completed, a pre-departure inspection reveals presence of frost, ice or snow. The correct action is to: (1.00 P.)
- [A] switch on all the aircraft anti-icing and de-icing systems and leave on until clear of icing conditions when airborne
  - [B] carry out a new de-icing/anti-icing procedure
  - [C] complete departure provided that the recommended anti-icing holdover (protection) time for the prevailing conditions and type of fluid used has not been exceeded
  - [D] complete departure as soon as possible to reduce the possibility of further contamination



- 176 In the event of communication failure in an MNPS (Minimum Navigation Performance Specification) airspace, the pilot must: (1.00 P.)
- [A] continue the flight in compliance with the last oceanic clearance received and acknowledged.
  - [B] return to the flight plan route if it is different from the last oceanic clearance received and acknowledged.
  - [C] join one of the so-called "special" routes.
  - [D] change the flight level in accordance with predetermined instructions.

- 177 According to the KCARs, when a commercial transport passenger aircraft is equipped with a door in the flight crew compartment area, this door must include: (1.00 P.)
- [A] a locking system to prevent any unauthorized access.
  - [B] a sealing system which, in case of depressurisation in the compartment area allows the maintenance of the pressure in the cockpit for as long as possible.
  - [C] a device preventing the flight crew from being locked in the cockpit.
  - [D] distinctive red or yellow coloured markings indicating the access area (in case of a blocked door).

- 178 When a commander of an aircraft notices, after take-off, a flock of birds presenting a bird strike hazard, he/she shall: (1.00 P.)
- [A] submit a written hazard bird strike report upon arrival and within at most 48 hours.
  - [B] inform the other aircraft by radio.
  - [C] immediately inform the local ground station/ATS unit.
  - [D] inform the appropriate ground station within a reasonable period of time.

179 The authorization for the transport of dangerous goods is specified on the: (1.00 P.)

- [A] insurance certificate.
- [B] airworthiness certificate.
- [C] registration certificate.
- [D] air operator certificate.

180 070-004.jpg

If a packet is marked with the label shown in the appendix it is: (1.00 P.)

Siehe Anlage 3

- [A] a corpse
- [B] an infectious substance
- [C] a toxic material
- [D] an explosive substance

181 Assuming that the operator is approved by his national authorities, carriage of dangerous goods is allowed, provided that: (1.00 P.)

- [A] no passenger is carried on the same flight
- [B] the airline is approved to and complies with the technical instructions (ICAO DOC 9284)
- [C] national aviation administration permission has been granted
- [D] government permission has been granted and compliance with the technical instructions

182 In case of a hi-jack, the squawk code is: (1.00 P.)

[A] A 7600

[B] A 7700

[C] A 2000

[D] A 7500

183 A dry-chemical type fire extinguisher is fit to fight:

- 1- class A fires
- 2- class B fires
- 3- electrical source fires
- 4- special fires: metals, gas, chemicals

Which of the following combinations contains all of the correct statements? (1.00 P.)

- [A] 1 - 2 - 3
- [B] 3 - 4
- [C] 2 - 4
- [D] 1 - 2 - 3 - 4

184 The fire extinguisher types which may be used on class A fires are:

- 1 - H<sub>2</sub>O
- 2 - CO<sub>2</sub>
- 3 - dry-chemical
- 4 - halon

Which of the following combinations contains all of the correct statements? (1.00 P.)

- [A] 2 - 3 - 4
- [B] 3 - 4
- [C] 1 - 2 - 3 - 4
- [D] 1

- 185 If it exists, the M.M.E.L. (Master Minimum Equipment List) is drawn up by:  
(1.00 P.)
- [A] the manufacturer / the type certificate holder.
  - [B] the aircraft manufacturer's list.
  - [C] the aircraft state of registry.
  - [D] the operator.

186 The fire extinguisher types which may be used on class B fires are:

1 - H<sub>2</sub>O

2 - CO<sub>2</sub>

3 - dry-chemical

4 - halon

Which of the following combinations contains all of the correct statements? (1.00 P.)

[A] 3 - 4

[B] 1 - 2 - 3 - 4

[C] 2 - 3 - 4

[D] 2



- 187 On a polar stereographic chart whose grid is parallel with the Greenwich meridian in the direction of the true North pole, the "true" orientation of the great circle linking point  $62^{\circ}\text{N } 010^{\circ}\text{E}$  to point  $66^{\circ}\text{N } 050^{\circ}\text{W}$  is  $305^{\circ}$ . The grid route at the starting point of this great circle is: (1.00 P.)
- [A]  $295^{\circ}$ .
  - [B]  $298^{\circ}$ .
  - [C]  $301^{\circ}$ .
  - [D]  $292^{\circ}$ .

188 H<sub>2</sub>O extinguishers are fit to fight: (1.00 P.)

- [A] Class A fires
- [B] electrical source fires
- [C] special fires: metals, gas, chemical products
- [D] Class B fires

- 189 The dangerous goods transport document, if required, shall be drawn up by: (1.00 P.)
- [A] the operator.
  - [B] the shipper.
  - [C] the handling agent.
  - [D] the captain.

190 CO2 type extinguishers are suitable to fight:

1 - class A fires

2 - class B fires

3 - fires with an electrical origin

4 - special fires: metals, gas, chemical products

Which of the following combinations contains all the correct statements: (1.00 P.)

[A] 2 - 3 - 4

[B] 1 - 3 - 4

[C] 1 - 2 - 3

[D] 1 - 2 - 4

191 During a landing approach, the aircraft is subjected to windshear with a decreasing head wind. In the absence of a pilot action, the aircraft:

1. flies above the glide path
2. flies below the glide path
3. has an increasing true airspeed
4. has a decreasing true airspeed

The combination of correct statements is: (1.00 P.)

[A] 2,4

[B] 1,3

[C] 2,3

[D] 1,4

192 A class B fire is a fire of: (1.00 P.)

- [A] electrical source fire
- [B] liquid or liquefiable solid
- [C] special fire: metal, gas, chemical product
- [D] solid material usually of organic nature

- 193 The master minimum equipment list (MMEL) if this exists is established by: (1.00 P.)
- [A] the manufacturer of the aircraft, but need not to be accepted by the authority
  - [B] the operator of the aircraft, and accepted by the authority
  - [C] the manufacturer of the aircraft, and accepted by the authority
  - [D] the operator of the aircraft, and accepted by the manufacturer

194 During a landing approach, the aircraft is subjected to windshear with an increasing tail wind. In the absence of a pilot action, the aircraft:

- 1- flies above the glide path
- 2- flies below the glide path
- 3- has an increasing true airspeed
- 4- has a decreasing true airspeed

The combination of correct statements is: (1.00 P.)

- [A] 2,4.
- [B] 1,3.
- [C] 1,4.
- [D] 2,3.



- 195 The minimum equipment list (MEL) gives the equipment which can be inoperative when undertaking a flight and the additional procedures to be observed accordingly. This list is prepared by: (1.00 P.)
- [A] the operator, and it is inserted in the operations manual
  - [B] the operator, and it is appended to the flight manual
  - [C] the manufacturer, and it is appended to the flight manual
  - [D] the manufacturer, and it is inserted in the operations manual
- 196 A piece of equipment on your public transport aircraft fails while taxiing to the holding point. The reference document you use in the first place to decide on the procedure to follow is: (1.00 P.)
- [A] the minimum equipment list.
  - [B] the operations manual's chapter "Abnormal and Emergency Procedures".
  - [C] the KCARs.
  - [D] the flight record.

197 Wind shear is:

(1.00 P.)

- [A] a vertical or horizontal wind velocity and / or wind direction over a large distance
- [B] a variation in vertical wind velocity variation over a short distance
- [C] a horizontal wind velocity variation over a short distance
- [D] a variation in vertical or horizontal wind velocity and / or wind direction over a short distance

- 198 A piece of equipment on your public transport aircraft fails while you are still parked. The reference document you use to decide on the procedure to follow is: (1.00 P.)
- [A] the KCARs.
  - [B] the operations manual's chapter "Abnormal and Emergency procedures".
  - [C] the flight manual.
  - [D] the minimum equipment list.

199 During a landing approach, the aircraft is subjected to windshear with an increasing head wind. In the absence of a pilot action, the aircraft:

- 1- flies above the glide path
- 2- flies below the glide path
- 3- has an increasing true airspeed
- 4- has a decreasing true airspeed

The combination of correct statements is: (1.00 P.)

- [A] 1,3.
- [B] 2,3.
- [C] 2,4.
- [D] 1,4.

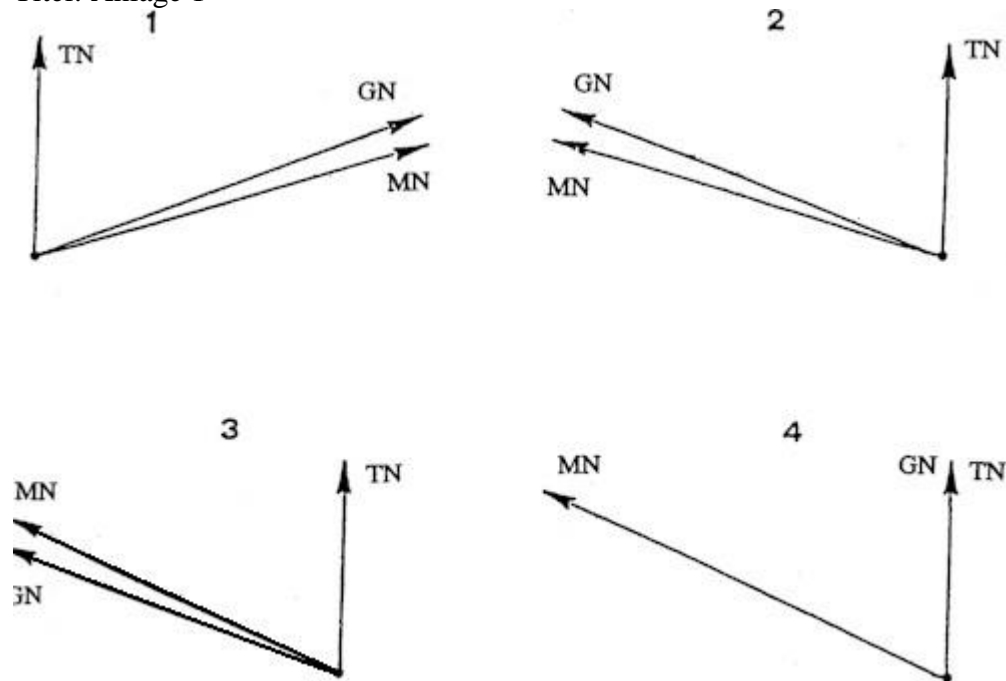
- 200 The minimum equipment list of a public transport aircraft is to be found in the:  
(1.00 P.)
- [A] KCARs.
  - [B] flight record.
  - [C] operations manual.
  - [D] flight manual.

## Anlagen zu den Aufgaben

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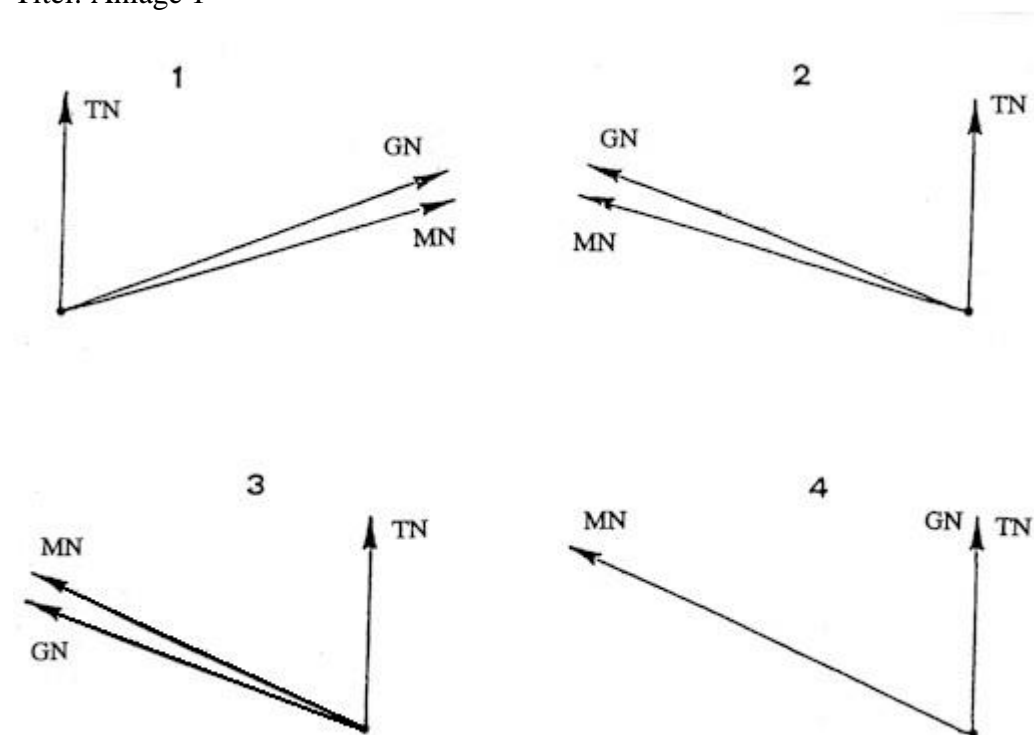
### Anlage 1 zu Aufgabe 39

Titel: Anlage 1



### Anlage 2 zu Aufgabe 128

Titel: Anlage 1



### Anlage 3 zu Aufgabe 180

Titel: Anlage 1



**Vom Teilnehmer auszufüllen**

Name:

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Unterschrift

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



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67.	A	B	C	D
70.	A	B	C	D
73.	A	B	C	D
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90.	A	B	C	D
93.	A	B	C	D
96.	A	B	C	D
99.	A	B	C	D
102.	A	B	C	D
105.	A	B	C	D
108.	A	B	C	D
111.	A	B	C	D
114.	A	B	C	D
117.	A	B	C	D
120.	A	B	C	D
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132.	A	B	C	D

**Vom Teilnehmer auszufüllen**

Name:

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136 .	A	B	C	D
139 .	A	B	C	D
142 .	A	B	C	D
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148 .	A	B	C	D
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172 .	A	B	C	D
175 .	A	B	C	D
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164 .	A	B	C	D
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182 .	A	B	C	D
185 .	A	B	C	D
188 .	A	B	C	D
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194 .	A	B	C	D
197 .	A	B	C	D

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195 .	A	B	C	D
198 .	A	B	C	D

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Prüfungsdatum:	Unterschrift

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# Nur für den internen Gebrauch

LÖSUNGSBOGEN

Prüf.-Nr.:

Prüfungsdatum:

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32.				D
35.	A			
38.		B		
41.			C	
44.		B		
47.		B		
50.		B		
53.	A			
56.		B		
59.			C	
62.		B		
65.	A			
3.			C	
6.			C	
9.		B		
12.			C	
15.		B		
18.				D
21.		B		
24.				D
27.			C	
30.	A			
33.	A			
36.				D
39.				D
42.	A			
45.		B		
48.			C	
51.				D
54.	A			
57.				D
60.			C	
63.				D
66.		B		

# Nur für den internen Gebrauch

LÖSUNGSBOGEN

Prüf.-Nr.:

Prüfungsdatum:

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

# Nur für den internen Gebrauch

LÖSUNGSBOGEN

Prüf.-Nr.:

Prüfungsdatum:

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

<b>Nur für den internen Gebrauch</b>	
<b>LÖSUNGSBOGEN</b>	<b>Prüf.-Nr.:</b>
<b>Prüfungsdatum:</b>	

<b>199</b>	<b>A</b>						<b>200</b>			<b>C</b>	
.							.				