Bundesnetzagentur

Prüfungsfragen im Prüfungsteil

Kenntnisse

bei Prüfungen zum Erwerb des

Beschränkt Gültigen Sprechfunkzeugnis E für den Flugfunkdienst (BZF E)

Gültig ab 01. September 2023
Valid from 01. September 2023

Bearbeitet und herausgegeben von der
Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen

Prüfungsfragen im Prüfungsteil "Kenntnisse" bei Prüfungen zum Erwerb des Beschränkt Gültigen Sprechfunkzeugnis E für den Flugfunkdienst (BZF E)

Examination questions in the examination part "Knowledge" in examinations for obtaining the Restricted Flight Radiotelephone Operator´s Certificate E (BZF E)

Herausgeber

Bundesnetzagentur
Referat 226
Fehrbelliner Platz 3
10707 Berlin

E-Mail: poststelle@bnetza.de
Internet: http://www.bundesnetzagentur.de/Flugfunkzeugnisse

Hinweise

Dieser Fragen- und Antwortenkatalog basiert auf der Verordnung über Flugfunkzeugnisse in der gültigen Fassung.

Nur der von der Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen herausgegebene Fragen- und Antwortenkatalog in seiner aktuellen Fassung ist verbindlich.

Notices

This question and answer catalog is based on the Ordinance concerning Aeronautical Radio Certificates in the current version.

The question and answer catalog in its current version issued by the Bundesnetzagentur für Elektrizität, Gas, Telekommunikation, Post und Eisenbahnen is binding only.

Allgemeine Informationen

Nach der Verordnung über Flugfunkzeugnisse (FlugfunkV) sind bei Prüfungen zum Erwerb des Beschränkt Gültigen Sprechfunkzeugnis E für den Flugfunkdienst (BZF E) in englischer Sprache nachzuweisen:

- ✈ rechtliche Grundlagen des mobilen Flugfunkdienstes im nationalen und internationalen Bereich;
- ✈ Betriebsverfahren für den Sprechfunkverkehr im mobilen Flugfunkdienst;
- ✈ Anwendung des Not- und Dringlichkeitsverfahrens im Sprechfunkverkehr des mobilen Flugfunkdienstes;
- ✈ die wichtigsten Bestimmungen und Betriebsverfahren aus dem Bereich der Flugsicherung:
  - Flugsicherungssystem und Luftraumorganisation in der Bundesrepublik Deutschland einschließlich Such- und Rettungsdienst (SAR);
  - Durchführungsverordnung (EU) Nr. 923/2012 der Kommission vom 26. September 2012 zur Festlegung gemeinsamer Luftverkehrsregeln und Betriebsvorschriften für Dienste und Verfahren der Flugsicherung und zur Änderung der Durchführungsverordnung (EG) Nr. 1035/2011 sowie der Verordnungen (EG) Nr. 1265/2007, (EG) Nr. 1794/2006, (EG) Nr. 730/2006, (EG) Nr. 1033/2006 und (EU) Nr. 255/2010 (ABl. L 281 vom 13.10.2012, S. 1, L 145 vom 31.5.2013, S. 38) in der jeweils geltenden Fassung, einschließlich der Luftverkehrs-Ordnung, soweit sie für Flüge nach Sichtflugregeln zur Anwendung kommt;
  - Verordnung über die Flugsicherungsausrüstung der Luftfahrzeuge für Flüge nach Sichtflugregeln einschließlich der dazu ergangenen Durchführungsverordnungen;
  - Funknavigation bei Flügen nach Sichtflugregeln.

In diesem Katalog ist bei jeder Frage die richtige Lösung immer die Antwort A. Die Antworten B, C und D sind falsche oder teilweise falsche Antworten. Bei der Prüfung sind in den Prüfungsbögen die Antworten in zufälliger Reihenfolge angeordnet. Bei der Prüfung ist im Antwortbogen die als richtig angesehene Antwort anzukreuzen.

General information

According to the Ordinance concerning Aeronautical Radio Certificates (FlugfunkV), the following knowledge must be demonstrated in the examination for the Restricted Flight Radiotelephone Operator's Certificate E (BZF E) in English:

- ✈ *national and international legal provisions applicable to the aeronautical mobile service;*
- ✈ *radiotelephone procedures in the aeronautical mobile service;*
- ✈ *the application of distress and urgency procedures in radiotelephone communications of the aeronautical mobile service;*
- ✈ *the most important provisions and operating procedures in the field of air navigation:*
  - *the air navigation system and organisation of airspaces in the Federal Republic of Germany, including the Search and Rescue Service (SAR);*
  - *Commission Implementing Regulation (EU) No 923/2012 of 26 September 2012 laying down the common rules of the air and operational provisions regarding services and procedures in air navigation and amending Implementing Regulation (EU) No 1035/2011 and Regulations (EC) No 1265/2007, (EC) No 1794/2006, (EC) No 730/2006, (EC) No 1033/2006 and (EU) No 255/2010 (ABl. L 281 vom 13.10.2012, S. 1, L 145 vom 31.5.2013, S. 38) in the current version, including the Air Traffic Regulations, in so far as they are applicable to flights according to Visual Flight Rules;*
  - *the Ordinance on the fitting of aircraft with flight navigational equipment according to the Visual Flight Rules (Verordnung über die Flugsicherungsausrüstung der Luftfahrzeuge für Flüge nach Sichtflugregeln) including the regulations adopted for the implementation of the ordinance;*
  - *radionavigation on flights according the Visual Flight Rules.*

In this catalog, for every question, the correct answer is always the answer A. The answers B, C, and D are wrong or partially incorrect answers. In the exam, the answers are arranged in random order in the examination papers. In the examination, the answer should be marked as correct.

1 **Which international organisation is of particular importance to the aeronautical radio service worldwide?**

A ITU
B IATA
C UNESCO
D NATO

2 **What is the legal basis for the setting-up and operation of radio installations in the Federal Republic of Germany?**

A Telecommunications Act (TKG)
B Air Traffic Act (LuftVG)
C Convention on International Civil Aviation
D Ordinance on the fitting of aircraft with navigational equipment

3 **Who is responsible for frequency assignments for the operation of aeronautical stations and aircraft stations in the Federal Republic of Germany?**

A Federal Network Agency (Bundesnetzagentur)
B Federal Minister of the Interior
C Aeronautical Authorities of the Lands (federal states)
D Air traffic service (DFS)

4 **Who requires an operator's certificate to conduct radiotelephony communication?**

A Sport pilot in Class D airspace
B Student pilot on board a training aircraft in the traffic circuit at an uncontrolled aerodrome
C Operator of an aeronautical station used exclusively for transmitting flight regularity messages
D Student pilot on board a training aircraft in the traffic circuit at a controlled aerodrome

5 **Who does not need an operator's certificate to perform radiotelephony communication?**

A Operator of a radio station with the call sign "RETRIEVER (RÜCKHOLER)"
B Air traffic controller
C Chief flying instructor at glider sites
D Sport pilot in Class C airspace

6 **Who does not need an operator's certificate to perform radiotelephony communication?**

A Student pilot in the traffic circuit of aerodromes with controlled/uncontrolled air traffic control
B Air traffic controller
C Chief flying instructor at an airfield
D Aviation Safety Oversight Officer

7 **The "Radiotelephone Operator's Restricted Certificate (BZF II)" entitles its holder to perform radiotelephony communication …**

A in the German language within the Federal Republic of Germany
B in the English language for VFR flights
C for IFR flights
D in the German and English language at any German aeronautical station

8 **The "Radiotelephone Operator's Restricted Certificate (BZF II)" entitles its holder to perform radiotelephony communication …**

A in the German language for VFR flights within the Federal Republic of Germany
B in the English language for VFR flights within the Federal Republic of Germany
C for IFR flights
D in any of the ICAO languages for VFR flights

9 **Which operator's certificate is required to perform radiotelephony communication in German and English during a VFR flight?**

A BZF I
B BZF II
C No operator's certificate required since it is a VFR flight
D No operator's certificate required if the flight instructor has issued a written flight order

10 **What is an aircraft station? A station …**

A of the aeronautical mobile service on board an aircraft
B on board an aircraft carrier
C of the aeronautical mobile service at an international airport
D of the aeronautical mobile service at an airfield

11 **What is an aeronautical station?**

A Land station in the aeronautical mobile service. In certain instances it may be located on board ship or on a platform at sea
B Station of the aeronautical fixed telecommunication service
C Any station used to exchange radio messages
D Station of the aeronautical telecommunication service located on land or on board a ship for the exchange of radio messages

12 **What does the term "BLIND TRANSMISSION" mean?**

A Transmission of a message to the air traffic service in cases where radio contact cannot be established
B Transmission of meteorological and flight operational information to aircraft over the high seas or deserts beyond the radio coverage of VHF aeronautical stations
C Transmission of aeronautical information that is not addressed to a specific receiving station
D Radio message to be repeated by the receiving station

13 **What does the term "GENERAL CALL" mean?**

A Stations in the aeronautical mobile service may simultaneously call all stations maintaining listening watch on a frequency

B Transmission of reports on meteorological phenomena which could affect the safety of flight operations, intended for one or more specific stations

C Communication whose receipt has to be acknowledged

D Radiotelephony communication from an aeronautical station to a specific aircraft station

14 **What does the term "HOLDING POINT" mean?**

A A designated position intended to protect a runway, an obstacle limitation surface at which taxiing aircraft and vehicles shall stop and hold

B Unmarked position in the parking area for general aviation

C Marked position on a runway where the take-off run is commenced

D Marked parking area on the apron of a commercial airport

15 **Which abbreviation is used for the term "CONTROL ZONE"?**

A CTR

B CZ

C CTZ

D CTA

16 **What does the abbreviation "IMC" mean?**

A Instrument Meteorological Conditions

B Visual Meteorological Conditions

C Instrument Flight

D Visual Flight

17 **What does the abbreviation "FIR" mean?**

A Flight Information Region

B Flight Information Radar

C Flight Information Requested

D Flight Information Received

18 **What does the abbreviation "H24" mean?**

A Continuous day and night service

B Sunset to sunrise

C No specific working hours

D Altitude 2400 feet

19 **What does the abbreviation "HX" mean?**

A No specific working hours
B Altitude not specified
C Sunrise to sunset
D Continuous day and night service

20 **What does the abbreviation "HJ" mean?**

A Sunrise to sunset
B No specific working hours
C Sunset to sunrise
D Continuous day and night service

21 **What does the abbreviation "AIS" mean?**

A Aeronautical Information Services
B Airport Information System
C General Information Centre
D All-weather Information System

22 **What does the abbreviation "SAR" mean?**

A Search and Rescue
B "STOP AT THE TAXI HOLDING POINT"
C Secondary Approach Radar
D Standard Approach Route

23 **Which abbreviation is used for the term "COORDINATED UNIVERSAL TIME"?**

A UTC
B GMT
C Z time
D CUT

24 **What does the abbreviation "ATIS" mean?**

A Automatic Terminal Information Service
B Air Traffic Information Service
C Airport Terminal Information Service
D Automatic Information System

25 **What does the Q Code "QFE" mean?**

A Atmospheric pressure at aerodrome elevation or at runway threshold
B Atmospheric pressure in reference to a point on the surface of Earth
C Atmospheric pressure in reference to the highest fixed obstacle at an aerodrome
D Altimeter sub-scale setting to obtain elevation when on ground

26 **What does the Q Code "QNH" mean?**

A Altimeter sub-scale setting to obtain aerodrome elevation when on the ground
B Atmospheric pressure at aerodrome elevation or at runway threshold
C Atmospheric pressure measured at the aerodrome reference point
D Atmospheric pressure in reference to the highest obstacle at an aerodrome

27 **If you want the altimeter to indicate the altitude above MSL, which atmospheric pressure shall the altimeter be set to?**

A QNH
B QFE
C QUJ
D QDM

28 **If you want the altimeter to indicate the height above aerodrome, which atmospheric pressure shall the altimeter be set to?**

A QFE
B QDR
C QNH
D QTE

29 **What does the Q Code "QDM" mean?**

A Magnetic heading to the station
B True bearing from the station
C Magnetic bearing from the station
D True heading to the station (zero wind)

30 **What is the Q Code for "MAGNETIC HEADING TO THE STATION"?**

A QDM
B QNE
C QDR
D QTE

31 **What does the Q Code "QDR" mean?**

A Magnetic bearing from the station
B Magnetic heading to the station (zero wind)
C True bearing/position line from the station
D True heading to the station

32 **What is the Q Code for "MAGNETIC BEARING FROM THE STATION"?**

A QDR
B QDM
C QTE
D QFE

33 **What are Messages Relating to Direction Finding? Messages which …**

A transmit direction finding values to provide navigational assistance
B relate to the failure of radio navigation equipment on board an aircraft
C transmit QNH values
D relate to the failure of radio navigation equipment on the ground

34 **In order of priority, which type of message precedes a Flight Safety Message?**

A Messages Relating to Direction Finding
B State Telegram
C Meteorological Message
D Flight Regularity Message

35 **Messages transmitted while performing air traffic control are …**

A Flight Safety Messages
B Messages Relating to Direction Finding
C Flight Regularity Messages
D Urgency Messages

36 **A message concerning the safety of an aircraft, any other vehicle or person on board is …**

A an Urgency Message
B a Flight Regularity Message
C a Distress Message
D a Flight Safety Message

37 **A message concerning aircraft parts urgently required is …**

A a Flight Regularity Message
B an Urgency Message
C a Flight Safety Message
D an Air Traffic Control Message

38 **Which of the following messages are authorized in the aeronautical mobile service?**

A Messages Relating to Direction Finding
B Administrative Messages from the Aeronautical Authorities of the Lands (federal states)
C Messages from aircraft operators
D Teletype Messages

39 **A pilot's message to the control tower "ESTIMATED TIME OF ARRIVAL 1206, PLEASE CALL ME A TAXI" is …**

A an unauthorized message in the aeronautical mobile service
B an Urgency Message
C a Flight Safety Message
D a Flight Regularity Message

40 **A pilot's message to the ATC service "REQUEST RADAR VECTORING TO CIRCUMFLY THE THUNDERSTORM" is …**

A a Flight Safety Message
B a Meteorological Message
C an Urgency Message
D a Message Relating to Direction Finding

41 **The clearance "RUNWAY 05, CLEARED FOR TAKE-OFF" is …**

A a Flight Safety Message
B an unauthorized message
C an Urgency Message
D a Flight Regularity Message

42 **The priority of a pilot’s message "REQUEST QDM" is …**

A higher than "CLEARED FOR TAKE-OFF"
B lower than "REQUEST QNH"
C lower than "CLIMB FLIGHT LEVEL 85"
D same as "RUNWAY 32, CLEARED TO LAND"

43 **The priority of the instruction "TAXI TO HOLDING POINT RUNWAY 12 VIA C" is …**

A same as "LINE UP RUNWAY 05 AND WAIT"
B lower than "CLEARED TO LAND"
C higher than "TRANSMIT FOR BEARING"
D higher than "CAUTION CONSTRUCTION WORK LEFT OF TAXIWAY G"

44 **What is the correct way of transmitting the time in the aeronautical radio service if there is no possibility of confusion?**

A Minutes, two digits
B Hours and minutes
C Minutes and seconds
D At discretion

45 **Numbers shall always be transmitted as single digits. Excepted from this regulation are …**

A bearings in terms of the 12-hour clock in case of traffic information
B designation of runways
C wind directions
D headings

46 **What is the correct way of spelling the call sign DIJYF?**

A DELTA INDIA JULIETT YANKEE FOXTROT
B DELTA YULIETT INDIA JANKEE FOXTROT
C DELTA INDIA JULIETT YANKEE FOX
D DELTA INDIA JANKEE YULIETT FOXTROT

47 **What is the correct way of transmitting the number 3500?**

A THREE THOUSAND FIVE HUNDRED
B THREE FIVE HUNDRED
C THREE FIVE ZERO ZERO
D THREE THOUSAND FIVE ZERO ZERO

48 **What is the correct way of transmitting "QNH 1001"?**

A QNH one zero zero one
B QNH one thousand one
C QNH one nought nought one
D QNH one thousand and one

49 **What is the correct way of transmitting the VHF frequency 120.275 MHz?**

A one two zero decimal two seven five
B one twenty decimal two seven
C one two zero decimal two seven
D one two zero two seven five

50 **What is the correct way of transmitting the time 1318 in order to avoid any error or confusion?**

A one three one eight
B thirteen one eight
C thirteen eighteen
D one eight past thirteen hours

51 **What is the call sign of an aeronautical station at a controlled aerodrome for air traffic control on the manoeuvring area?**

A GROUND
B INFORMATION
C RADAR
D TOWER

52 **What is the call sign of an aeronautical station at a controlled aerodrome for air traffic control in the traffic circuit?**

A TOWER
B RETRIEVER (RÜCKHOLER)
C APRON
D INFORMATION

53 **The call signs of German aeronautical stations at an uncontrolled airfield comprise the name of the airfield plus the term:**

A RADIO
B AIR SUPERVISION (LUFTAUFSICHT)
C TOWER (TURM)
D AIR TRAFFIC CONTROL (FLUGLEITUNG)

54 **The call signs of German aeronautical stations at gliding sites comprise the name of the gliding site plus the term:**

A GLIDER ACTIVITY
B RADIO
C GROUND
D INFORMATION

55 **The call sign the air traffic service uses for the Flight Information Service is:**

A INFORMATION
B RADIO
C INFO
D FLIGHT INFORMATION

56 **What is obtained from an aeronautical station with the call sign "INFORMATION"?**

A Aerodrome weather
B Taxiing instructions
C Landing clearances
D Take-off clearances

57 **When may the call sign of the aeronautical station be omitted in radiotelephony communication?**

A After the establishing of voice communication
B When the aircraft is in the traffic circuit
C In any radiotelephony call
D If confusion with any other aircraft station is ruled out

58 **The call signs of German aircraft stations comprise …**

A the characters of the registration mark of the aircraft
B the aircraft type designator and the last three characters of the registration mark
C the flight number combined with the registration mark
D the letter "D" and another three letters

59 **An aircraft shall not change the type of its radiotelephony call sign during flight, except temporarily …**

A on the instruction of an ATC unit in the interests of safety
B for powered gliders when changing from powered flight to gliding
C at the request of the pilot
D if the IFR flight plan is cancelled and the flight continues under VFR

60 **The abbreviated call sign of an aircraft station comprises …**

A the first character of the registration and at least the last two characters of the call sign
B the last three characters of the call sign
C the last two characters of the registration mark
D the aircraft type designator combined with the last character of the call sign

61 **When shall an aircraft station use its abbreviated call sign?**

A If it has already been used by the aeronautical station
B Only for flights in a traffic circuit
C In any radiotelephony call
D After establishment of radiotelephony contact with an aeronautical station

62 **With which air traffic service can a pilot establish radio contact during a flight in Class C airspace?**

A Air Traffic Control Service
B Air Navigation Service
C Aeronautical Telecommunication Service
D Aeronautical Information Service

63 **With which air traffic service can radio contact be established during flight?**

A Flight Information Service
B Aeronautical Telecommunication Service
C Air Navigation Service
D Aeronautical Information Service

64 **Which phrase shall be used if the call sign of the calling station is not understood?**

A SAY AGAIN YOUR CALL SIGN
B MONITOR YOUR CALL SIGN
C VERIFY YOUR CALL SIGN
D CONFIRM YOUR CALL SIGN

65 **A message is not completely repeated by a pilot, although this is required by the message type. Which phrase is used to request the pilot to repeat the message?**

A READ BACK
B GO AHEAD
C CONFIRM
D SAY AGAIN

66 **Which phrase shall be used for "YES"?**

A AFFIRM
B ROGER
C CORRECT
D THAT'S CORRECT

67 **Which phrase shall be used for "PERMISSION NOT GRANTED"?**

A NEGATIVE
B FALSE
C INCORRECT
D NO

68 **Which phrase shall be used for "I HAVE RECEIVED ALL OF YOUR LAST TRANSMISSION"?**

A ROGER
B AFFIRM
C WILL COMPLY
D WILCO

69 **The content of a clearly understandable message appears doubtful to you. Which phrase do you use to dispel the doubt?**

A CONFIRM
B READ BACK
C SAY AGAIN
D CORRECTION

70 **The altimeter is set to 1013.2 hPa and reads 7500 feet. The aeronautical station requests the current level of the aircraft. What shall be the pilot's answer?**

A FL 75
B 7500 ft
C 7500 ft AGL
D 7500 ft AMSL

71 **Which phrase shall be used to say "AN ERROR HAS BEEN MADE IN THIS TRANSMISSION"? THE CORRECT VERSION IS …"?**

A QNH 1003 CORRECTION QNH 1002
B QNH 1003 BREAK BREAK 1002
C QNH 1003 NEGATIVE QNH 1002
D QNH 1003 I SAY AGAIN 1002

72 **Which phrase shall be used for "AUTHORIZATION TO PROCEED UNDER CONDITIONS SPECIFIED"?**

A CLEARED
B AFFIRM
C APPROVED
D CORRECT

73 **Which phrase shall be used to instruct a pilot to set the transponder to a specific mode/code?**

A SQUAWK
B OPERATE YOUR TRANSPONDER
C TRANSPOND
D RESPOND MODE …./CODE ….

74 **The phrase "WILCO" means:**

A I understand your message and will comply with it
B Wait and I will call you
C I have received all of your last transmission
D I repeat for clarity or emphasis

75 **The phrase "MONITOR" means:**

A Listen out on (frequency/channel)
B Consider that transmission as not sent
C Establish radio contact with (station)
D Let me know that you have received and understood this message

76 **Which phrase shall be used by a pilot to acknowledge the control tower's instruction: "GO AROUND, RUNWAY BLOCKED"?**

A GOING AROUND
B ROGER
C WILCO
D AFFIRM

77 **Which phrase shall be used by a pilot to acknowledge the instruction "DEKMG HOLD POSITION CANCEL TAKE-OFF, I SAY AGAIN CANCEL TAKE-OFF"?**

A DEKMG HOLDING
B DEKMG ROGER
C DEKMG
D DEKMG AFFIRM

78 **DEHOL receives clearance for take-off on runway 24. How shall the pilot acknowledge the clearance?**

A DEHOL RUNWAY 24 CLEARED FOR TAKE-OFF
B DEHOL CLEARED FOR TAKE-OFF
C DEHOL WILCO
D DEHOL I AM TAKING OFF

79 **DEKUL has completed take-off preparations. Which phrase shall be used by the pilot to inform the TOWER?**

A DEKUL READY FOR DEPARTURE
B DEKUL CLEARED FOR TAKE-OFF
C DEKUL READY FOR TAKE-OFF
D DEKUL TAKING OFF

80 **What does the instruction "(call sign) SQUAWK 1352" from an ATC unit mean?**

A Switch transponder to Mode/Code 1352
B Count 1-3-5-2 for radio bearing
C Request test transmission on frequency 135.200 MHz
D Switch to frequency 135.200

81 **If you receive a report from radar control "UNKNOWN TRAFFIC AT TEN O'CLOCK, DISTANCE 4 MILES", where is the traffic in relation to your cockpit?**

A Ahead to the left
B Abeam to the right
C Ahead to the right
D Directly ahead

82 **When shall an initial call be transmitted?**

A On establishing radio contact
B Only in emergencies
C If message has not been understood
D In any radiotelephony communication

83 **Which of the following examples is an initial call?**

A AACHEN RADIO DELID
B SAARBRÜCKEN TOWER, THIS IS DIAMK
C HAMBURG TOWER FROM DEMIL, GO AHEAD
D GLIDER D2468 FOR WASSERKUPPE, HOW DO YOU READ?

84 **Does a "GENERAL CALL" require acknowledgement?**

A No
B Yes, but only by the first pilot called
C Yes, by all pilots in any sequence
D Yes, by all pilots in the sequence called

85 **Which of the following radiotelephony calls is a "GENERAL CALL"?**

A ALL STATIONS HAMBURG TOWER … OUT
B DEKOF, DIEBS, DKARL NÜRNBERG GROUND
C D8765 BERLIN INFORMATION
D LUFTHANSA 123, LUFTHANSA 456

86 **Which of the following calls is a "MULTIPLE CALL"?**

A DEABC, DGIAL, DHHIA CONTACT LEIPZIG TOWER (FREQUENCY)
B DIENO DELLW
C ALL STATIONS THIS IS DRESDEN TOWER
D DEAMM ERFURT GROUND

87 **Does a "MULTIPLE CALL" require acknowledgement?**

A Yes, in the sequence used by the calling station
B Yes, in any sequence
C No
D Yes, but only by the first calling station

88 **A pilot receives a radiotelephony call but is uncertain whether they have been called. What is the correct procedure to be followed? The pilot shall …**

A wait until the call is repeated
B transmit their own call sign and wait
C transmit their own call sign using the phrase "SAY AGAIN YOUR CALL SIGN"
D answer by using the phrase "SAY AGAIN"

89 **What shall be taken into account before radiotelephony communication is commenced?**

A After selecting the correct frequency, the pilot shall ensure that no interference is caused to any ongoing radiotelephony communication
B A radio check shall have been carried out first
C The aircraft shall be airborne
D The distance between the aeronautical station and the aircraft station shall not be less than 30 NM

90 **Before entering Class C airspace below FL 100 in the vicinity of commercial airports, when is the latest permissible time for establishing radiotelephony communication with the competent ATC unit?**

A 5 minutes prior to entering this airspace
B Upon entering the airspace
C Immediately after take-off
D Above 3500 ft AGL

91 **Radiotelephony communication during VFR flights at and above Flight Level 100 is performed in …**

A the English language
B the German language
C any of the ICAO languages
D the German or English language

92 **DGIGA receives the instruction to call HAMBURG TOWER on frequency 121.280 MHz. What is the correct confirmation by the pilot?**

A DGIGA contact 121.280
B DGIGA changing frequency
C DGIGA will call TOWER DGIGA
D HAMBURG TOWER DGIGA

93 **A continuous air-ground voice communication watch shall be maintained during VFR flights in airspace(s):**

A C and D
B D only
C E
D E and D

94 **A pilot flies an aircraft under VFR in the traffic circuit of a controlled aerodrome. What shall the pilot always be obliged to do?**

A Maintain a continuous air-ground voice communication watch on the aerodrome control frequency
B Transmit a position report at every leg of the traffic circuit
C Request a meteorological briefing
D Always file a flight plan before commencement of the flight

95 **Which types of flight do not require maintain continuous air-ground voice communication watch? In the case of VFR flights, …**

A at night in Class G airspace (outside RMZ)
B at night in Class C airspace (outside the vicinity of the aerodrome)
C at night in Class D airspace (outside the vicinity of the aerodrome)
D at night in Class E airspace (outside the vicinity of the aerodrome)

96 **Which VFR flights require a pilot to maintain a continuous air-ground voice communication watch on the assigned frequency?**

A Flights in Class C airspace
B Flights in Class F airspace
C Flights in Class E airspace (outside RMZ)
D Flights in Class G airspace (outside RMZ)

97 **A person operating an aircraft on a controlled aerodrome or in its vicinity is obliged, inter alia, to obtain by radio or visual signs prior permission for all movements …**

A preparatory to or associated with taxiing, take-off and landing
B preparatory to take-off and landing
C preparatory to taxiing, take-off and landing
D preparatory to or associated with take-off and landing

98 **A person operating an aircraft under VFR on a controlled aerodrome or in its vicinity shall be obliged to …**

A maintain a continuous air-ground voice communication watch on the appropriate frequency, or, if this is not possible, pay attention to instructions given by light and ground signals or signs
B transmit a position report at every leg of the traffic circuit
C always file a flight plan before commencement of the flight
D request a meteorological and an AIS briefing

99 **In a radio check, what does the message "READ YOU TWO" mean? The radio check is …**

A readable now and then
B readable but with difficulty
C readable
D perfectly readable

100 **In a radio check, what does the message "READ YOU THREE" mean? The radio check is …**

A readable but with difficulty
B readable now and then
C readable
D perfectly readable

101 **In a radio check, what does the message "READ YOU FOUR" mean? The radio check is …**

A readable
B readable but with difficulty
C unreadable
D perfectly readable

102 **In a radio check, what does the message "READ YOU FIVE" mean? The radio check is …**

A perfectly readable
B unreadable
C readable now and then
D readable but with difficulty

103 **A radio check is "readable". How is this expressed in radiotelephony communication?**

A Read you four
B Read you three
C Read you loud and clear
D Read you

104 **A radio check is "readable but with difficulty". How is this expressed in radiotelephony communication?**

A Read you three
B Read you
C Read you two
D Read you, GO AHEAD

105 **What shall be included in a test transmission?**

A The words "RADIO CHECK"
B The words " TRANSMISSION CHECK"
C The words "TEST CHECK"
D The words "CHECK CHECK"

106 **Which message shall a pilot repeat?**

A CLEARED FOR TAKE-OFF
B CAUTION OPPOSITE-DIRECTION HELICOPTER
C CONSTRUCTION WORK LEFT OF RUNWAY
D SEVERE THUNDERSTORMS IN RHINE VALLEY NEAR MANNHEIM

107 **Which messages shall be repeated?**

A Altimeter settings
B Traffic information
C Meteorological messages
D Messages on runway condition

108 **Which messages shall be repeated?**

A Frequency in the case of a frequency change
B Information concerning construction work on runways
C Meteorological information
D Wind direction and force

109 **How shall the receipt of an ATC clearance be acknowledged?**

A By reading back the safety-related parts of clearances
B By pressing the microphone switch twice
C By transmitting one's own abbreviated call sign
D By pressing the microphone switch three times

110 **DESEL receives the following clearance/instruction: "DEL WHEN AIRBORNE CLIMB STRAIGHT AHEAD ALTITUDE 3000 FEET; THEN TURN RIGHT, WIND 250 DEGREES, 7 KNOTS, RUNWAY 22, CLEARED FOR TAKE-OFF". What is the correct read back from DESEL?**

A DEL CLIMB STRAIGHT AHEAD ALTITUDE 3000 FEET, THEN TURN RIGHT, RUNWAY 22, CLEARED FOR TAKE-OFF
B DEL CLEARED FOR TAKE-OFF, RUNWAY 22, WIND 250 DEGREES, 7 KNOTS
C DEL WILCO, RUNWAY 22, CLEARED FOR TAKE-OFF
D DEL CLIMB 3000 FEET, CLEARED FOR TAKE-OFF

111 **Which elements of the instructions or information below shall be read back?**

A Clearances, taxi instructions, runway-in-use, QNH, SSR codes, level instructions, heading and speed instructions, frequency in the case of frequency change
B Runway in use, ground visibility, dew point, take-off clearance, frequency in the case of frequency changes
C Clearances, wind direction/speed, heading instructions, QNH, frequency in the case of frequency changes
D Instructions concerning heading, flight level, speed, altimeter setting, flight visibility, wind direction, take-off clearance and frequency in the case of frequency changes

112 **Which VFR flights usually require the transmission of position reports?**

A Entering Class D airspace
B All flights in Class E airspace
C Night flights in Class G airspace
D Flights above cloud in Class E airspace

113 **VFR flights to controlled aerodromes are governed by the procedures laid down in the "Aeronautical Information Publication VFR" [VFR AIP]. Position reports over compulsory reporting points shall …**

A be made in all cases, unless expressly stated to the contrary, irrespective of the clearance given
B be made only in the case of special VFR flights
C be made only if requested by the aerodrome control tower, irrespective of the clearance given
D not be made. Given the instruction to enter the traffic circuit, no further position reports over compulsory reporting points are required

114 **When, in the case of a daytime VFR flight, shall a pilot transmit position reports to the competent ATC unit?**

A When flying over compulsory reporting points
B When leaving Class D airspace
C Only when flying over radio navigation stations (e.g. VOR, NDB)
D When entering Class E or F airspace

115 **A position report normally comprises the radio call sign of the aircraft, position, time of crossing and altitude. Which of these can be omitted under certain conditions in the case of VFR flights?**

A The time when the message is transmitted at the time of crossing
B The position provided it is published on the visual operation chart
C The flight level if it does not exceed 3500 ft AGL
D The call sign if it is a non-commercial flight

116 **What data does a position report on flights in the traffic circuit contain?**

A Radio call sign of the aircraft, position
B Radio call sign of the aircraft, position, time
C Radio call sign of the aircraft, position, altitude
D Radio call sign of the aircraft, position, altitude, time

117 **What does this symbol on the visual operation chart mean?**

A Compulsory reporting point
B Aviation obstacle
C Radio navigation facility
D Non-compulsory reporting point (on-request reporting point)

118 **What does this symbol on the visual operation chart mean?**

A Non-compulsory reporting point (on-request reporting point)
B Compulsory reporting point
C Military aerodrome
D Lighted obstacle

119 **When may the estimated time of arrival instead of a report of arrival be transmitted to the competent ATC unit?**

A If the aircraft is in the traffic circuit and the landing can be regarded as assured
B If the traffic is observed in the traffic circuit
C At the aerodrome control's request of the airfield if the landing can be regarded as assured
D After approval from the aerodrome control of the airfield

120 **In the case of flight-plan filing and take-off from an uncontrolled aerodrome, the report of departure may be transmitted by radiotelephony. To whom shall it be transmitted in this case?**

A To the competent ATC unit or to the competent FIS for forwarding to the AIS-C
B To the radio navigation service for forwarding to the AIS-C
C To the Aeronautical Information Service
D To the aeronautical station at the destination aerodrome

121 **Which data shall a report of departure contain if transmitted by radiotelephony?**

A Aircraft identification, departure aerodrome, time of departure, arrival aerodrome
B Aircraft identification, departure aerodrome, time of departure
C Aircraft identification, departure aerodrome, arrival aerodrome
D Aircraft identification, time of departure, arrival aerodrome

122 **When the term "SCATTERED (SCT)" is used in radiotelephony in connection with meteorological conditions, the amount of cloud covering the sky is:**

A 3 to 4 oktas
B 8 oktas
C 5 to 7 oktas
D 1 to 2 oktas

123 **When the term "BROKEN (BKN)" is used in radiotelephony in connection with meteorological conditions, the amount of cloud covering the sky is:**

A 5 to 7 oktas
B 1 to 2 oktas
C 8 oktas
D 3 to 4 oktas

124 **When the term "OVERCAST (OVC)" is used in radiotelephony in connection with meteorological conditions, the amount of cloud covering the sky is:**

A 8 oktas
B 5 to 7 oktas
C 3 to 4 oktas
D 1 to 2 oktas

125 **What does "3 to 4 OKTAS" in routine meteorological reports mean? The cloud amount is …**

A SCATTERED
B OVERCAST
C BROKEN
D NO SIGNIFICANT CLOUDS

126 **What does "5 to 7 OKTAS" in routine meteorological reports mean? The cloud amount is …**

A BROKEN
B FEW
C OVERCAST
D SCATTERED

127 **What does "1 to 2 OKTAS" in routine meteorological reports mean? The cloud amount is …**

A FEW
B BROKEN
C SCATTERED
D NO SIGNIFICANT CLOUDS

128 **When the term "CAVOK" is used in a routine meteorological report (METAR), the values of visibility and clouds are:**

A visibility 10 km or more, no cloud below 5000 ft AGL
B visibility 5000 m or more, no cloud below 5000 ft AGL
C visibility 10 km or more, no cloud below 1500 ft AGL
D visibility 5000 m or more, no cloud below 1500 ft AGL

129 **How are the values for flight visibility, ground visibility and runway visual range transmitted?**

A Less than 5 km in metres, above in kilometres
B In feet and NM
C Up to 1500 m in metres, above in kilometres
D In NM only

130 **Which of the following ground visibility reports is correct?**

A "VISIBILITY THREE THOUSAND METRES"
B "VISIBILITY APPROXIMATELY NINE THOUSAND FEET"
C "VISIBILITY THREE KILOMETRES"
D "VISIBILITY ONE DECIMAL EIGHT NAUTICAL MILES"

131 **What is VOLMET?**

A Meteorological broadcasts for aerodrome meteorological reports for airports
B Flight Information Service
C Radio call sign for a unit of the DWD
D Call sign of the Air Traffic Advisory Service

132 **During a flight a pilot shall request information on the aerodrome weather conditions via …**

A ATIS
B GAFOR
C AIS-C
D UHF

133 **ATIS broadcasts serve to provide pilots with information. What information do they contain?**

A Arrival and departure information for the safe performance of VFR and IFR flights
B Meteorological reports for cross-country flights in VMC
C Meteorological reports for several airports
D The true bearing to the aerodrome of destination

134 **How is SIGMET information disseminated from 0700 (0600 during the summer period) until SS+30?**

A As an aeronautical broadcast on the FIS frequencies every half and full hour
B As an aeronautical broadcast on the published VOLMET frequencies
C At the request of the pilot
D As an aeronautical broadcast on the ATC frequencies

135 **SIGMET messages are for the safety of general aviation flights. What information do they contain?**

A Significant meteorological phenomena, e.g. thunderstorms, turbulence, icing
B Notification of the cloud base in Classes F and G airspace
C Routine meteorological reports
D Meteorological data in chart form, obtainable from aeronautical meteorological offices

136 **What information shall a distress message contain?**

A Nature of the distress condition, intention of the pilot-in-command, present position, level and heading
B Nature of distress, cause of emergency, request to change frequency to 121.500 MHz
C Nature of distress condition, intention of the pilot, speed
D Intention of the pilot, TAS, position, rate of descent

137 **The distress signal MAYDAY means that …**

A being threatened by serious and/or imminent danger and of requiring immediate assistance
B a pilot has made or is about to make an unscheduled landing
C an aircraft is in a difficult situation
D a passenger on board an aircraft is seriously ill

138 **A distress call shall be transmitted ...**

A on the frequency used or on an emergency frequency
B solely on a FIS frequency
C always on the emergency frequency 121.500 MHz
D on a SAR frequency

139 **How shall a distress call be initiated?**

A MAYDAY, emitted preferably three times
B MAYDAY EMERGENCY MAYDAY
C PAN PAN, emitted preferably three times
D EMERGENCY, emitted preferably three times

140 **Which of the following signals is a distress signal?**

A The word MAYDAY transmitted by radiotelephony
B The firing of green and red flares
C The word PAN PAN transmitted by radiotelephony
D Repeated switching on and off of landing lights or navigation lights

141 **How shall an urgency call be initiated?**

A PAN PAN, emitted preferably three times
B ATTENTION, I HAVE AN URGENT MESSAGE
C URGENCY URGENCY
D MAYDAY, emitted preferably three times

142 **The radiotelephony signal PAN PAN means that an aircraft …**

A is in a difficult situation
B has strayed into a restricted area
C has been hijacked
D is in imminent, serious danger and requires immediate assistance

143 **Which code shall be selected on an aircraft's transponder in a distress situation?**

A A 7700
B A 7500
C A 7600
D A 7000

144 **An aircraft squawking 7700 indicates to the aeronautical station that …**

A the aircraft is in distress
B the aircraft has experienced radio communication failure
C the aircraft has been hijacked
D the aircraft is entering Class E airspace

145 **In case of radio communication failure prior to receipt or acknowledgement of a clearance to enter a control zone, the pilot shall …**

A set the transponder code to Mode A 7600, if possible; land at the nearest suitable aerodrome; and report the arrival time by the most expeditious means to the appropriate ATC unit

B set the transponder code to Mode A 7600, if possible; and find a suitable emergency landing site

C set the transponder code to Mode A 7600, if possible; and draw attention to the aircraft by performing circles to the left and to the right

D set the transponder code to Mode A 7600, if possible; make a 180° turn, and return to the aerodrome of departure

146 **What is a specific feature of a blind transmission?**

A The message shall be transmitted twice

B At the end of the blind transmission, the aircraft station's call sign is repeated

C The message shall be transmitted three times

D At the end of the blind transmission, the aeronautical station's call sign is repeated

147 **What is a specific feature of a blind transmission?**

A The time of the next intended transmission is announced

B The message commences with the phrase BLIND TRANSMISSION spoken three times

C At the end of the blind transmission, the aircraft station's call sign is repeated

D At the end of the blind transmission, the aeronautical station's call sign is repeated

148 **Which code shall be selected on an aircraft's transponder in the case of radio communication failure?**

A A 7600

B A 7700

C A 7500

D A 7000

149 **What does an aircraft indicate to the aeronautical station when it transmits the transponder code A 7600?**

A Radio communication failure

B Request landing instructions

C Emergency

D Entering Class C airspace

150 **Upon observing a light signal directed towards the aircraft, the pilot shall take the prescribed measures. What shall the pilot take into account?**

A Instructions by radio have priority over signals and signs, with the exception of red pyrotechnic lights

B Audio signals can also be given

C Signals and signs have priority over radio instructions

D Ground signals have priority over light signals

151 **Radio instructions have priority over light and ground signals and visual signs. This does not apply to …**

A red pyrotechnic lights
B steady green lights
C steady red lights
D series of red flashes

152 **A pilot shall follow, on a priority basis:**

A instructions by radio
B light signals
C ground signals
D flares discharged at intervals of about 10 seconds, which burst into red or green lights and stars

153 **Which frequency band is used for radiotelephony communication in the civil aeronautical mobile service?**

A 117.975 MHz - 137.000 MHz
B 108.000 kHz - 136.000 kHz
C 108.000 MHz - 117.975 MHz
D 200 - 490 kHz

154 **Which channel spacing (frequency band 117.975 MHz – 137.000 MHz) is operated in the aeronautical mobile service in lower airspace?**

A 25 kHz + 8.33 kHz
B 25 MHz
C 25 MHz + 8.33 MHz
D 8.33 kHz

155 **Which operating mode is used for radiotelephony communication in the aeronautical mobile service?**

A Simplex operation
B Full-duplex operation
C Simplex and duplex operation
D Duplex operation

156 **Which designation does the frequency 121.500 MHz have?**

A International emergency frequency
B Instruction and training frequency
C Inter-pilot air-to-air frequency
D Information frequency

157 **Which of the frequencies listed below corresponds to that of a German aeronautical station with the call sign "TOWER"?**

A 118.305 MHz
B 121.500 MHz
C 109.550 MHz
D 200 kHz

158 **Which frequency is operated in 8.33 kHz channel spacing?**

A 134.555 MHz
B 121.500 MHz
C 109.550 MHz
D 200 kHz

159 **How can a radiotelephony frequency be blocked?**

A Keeping the talk button depressed
B Speaking too loudly
C Speaking too softly
D Switching the radiotelephony unit on and off

160 **How do very high frequency (VHF) waves propagate?**

A Similar to light, i.e. "quasi optically"
B Similar to short waves but they are unaffected by atmospheric disturbances
C The waves travel as ground waves along the surface of Earth and, therefore, also penetrate into valleys, hence they cannot be influenced by topographical obstacles
D The waves are reflected by the ionosphere at an altitude of about 100 km and return to the Earth's surface as sky waves

161 **Which phenomena can influence the quality of VFH reception in aeronautical radio?**

A Altitude of the aircraft and topographical features
B Day-night effect
C Ionosphere
D Atmospherics occurring particularly during thunderstorms

162 **In which of the following situations is radiotelephony communication between aircraft and the TOWER on frequency 118.250 MHz unlikely to encounter any problems?**

A When the aircraft flies at a sufficiently high altitude, and is close to the aeronautical station
B When the aircraft performs a low-level flight in a valley, in radio shadow in the vicinity of the aeronautical station
C When the aircraft flies at a low altitude in the radio shadow of a mountain, and is far away from the aeronautical station
D When the aircraft flies at a low altitude, and is very far away from the aeronautical station

163 **What is the maximum distance at which you might expect perfect VHF radio contact over flat terrain at flight level 65?**

A Approx. 95 NM
B Approx. 20 NM
C Approx. 10 NM
D Approx. 150 NM

164 **What Air Traffic Services are there?**

A Air Traffic Control Service, Alerting Service, Flight Information Service, Air Traffic Advisory Service
B Air Navigation Service, Search and Rescue, and Telecommunication Services
C Alerting, Rescue, Information and Advisory Services
D Meteorological, Advisory, Search and Rescue (SAR), and Control Services

165 **The Flight Information Service performs the following tasks:**

A accept and forward flight plans and flight plan following messages
B distribute meteorological reports
C issue clearances
D organise Search and Rescue (SAR) services

166 **Who is responsible for air traffic control in the Federal Republic of Germany?**

A Air navigation provider services authorized by the Federal Supervisory Authority for Air Navigation Services (BAF)
B Federal Aviation Administration
C Aeronautical Authorities of the Lands (federal states)
D DFS Deutsche Flugsicherung GmbH

167 **When is the FIS available to a pilot?**

A During the flight
B During the flight but only for flights in Classes C and E airspace
C Before commencement of a flight
D During the flight, but only for flights in Class G airspace

168 **Flight preparations are the responsibility of:**

A all pilots
B only pilots performing cross-country flights
C only pilots of power-driven aircraft
D inexperienced pilots

169 **Meteorological briefing shall generally be requested …**

A for flights leaving the vicinity of the aerodrome of departure and for all IFR flights
B in the event of uncertain meteorological conditions
C for flights in respect of which flight plans must be filed
D for commercial flights

170 **The time data used for aviation purposes are always based on ...**

A Coordinated Universal Time (UTC)
B Local time
C Zone time (Z time)
D CET or CEST

171 **What is the measurement unit for horizontal speed in aviation?**

A Knots
B Miles per minute
C Kilometres per hour
D Metres per minute

172 **What is the measurement unit for vertical speed in aviation?**

A Feet per minute
B Feet per second
C Knots
D Metres per minute

173 **What is the measurement unit for altitudes in aviation?**

A Feet
B Inches
C Metres
D Kilometres

174 **What is the measurement unit for distances used in aviation for navigation purposes?**

A Nautical miles and tenths
B Knots
C Kilometres
D Miles

175 **What is the measurement unit for atmospheric pressure in aviation?**

A Hectopascal
B Atmosphere above atmospheric pressure
C Millimetre of mercury
D Millibar

176 **Which minimum height shall be observed over the congested areas of cities for VFR flights?**

A 300 m (1000 ft) above the highest obstacle and a distance of 600 m from the aircraft
B 300 m (1000 ft) above ground or the highest obstacle
C 600 m (2000 ft) above the highest obstacle and a distance of 150 m from the aircraft
D 600 m (2000 ft), if no contact to obstacles

177 **What is the required minimum distance to the highest obstacle for VFR flights over ground or water at an altitude of 150 m (500 ft)?**

A 150 m (500 ft) from the aircraft
B 300 m (1000 ft) from the aircraft
C 1,5 km to the next obstacle
D No distance required

178 **A power-driven aircraft and a glider are approaching head-on. Who shall give way?**

A Both shall turn right
B The glider
C The faster aircraft
D The power-driven aircraft

179 **Aircraft towing objects shall have the right of way over …**

A power-driven aircraft
B all other aircraft
C gliders
D powered gliders with their engines turned off

180 **A pilot observes a powered glider (engine running) converging at approximately the same level from the left that will cross the pilot's flight path. Who shall give way?**

A The powered glider shall give way to the aircraft
B The aircraft shall give way to the powered glider
C The faster aircraft shall give way
D Both aircraft shall change course

181 **When an aircraft is in the final stages of an approach to land …**

A an aircraft at a lower level shall have the right of way
B an aircraft at a higher level shall have the right of way
C a multiple-seated aircraft always shall have the right of way
D an aircraft at a lower level shall make a long landing

182 **When shall all aircraft display navigation lights?**

A At night
B At night and in low visibility conditions
C From SS+30 to SR
D From SS+30 to SR+30

183 **All aircraft in flight and fitted with anti-collision lights shall display such lights …**

A during day and night
B during night only
C from take-off to landing at night in low visibility conditions
D by aircraft operating at night and in daytime in low visibility conditions

184 **A horizontal red square panel with two yellow diagonals displayed in the signal area indicates:**

A landing is prohibited for a prolonged period
B the aerodrome is closed for a short time
C the aerodrome is unusable for a prolonged period
D take-off and landing are prohibited for a prolonged period

185 **A horizontal white dumb-bell displayed in the signal area indicates:**

A aircraft are required to land, take off, and taxi on runways and taxiways only
B aircraft is required to take off on taxiway
C landing is prohibited for leisure aircraft
D taxiway may not be used for the time being

186 **A white or orange "T" (landing T) which is either illuminated or outlined in white lights at night indicates:**

A take-offs and landings shall be executed parallel to the shaft of the landing T towards the cross arm
B take-off is prohibited
C aircraft is required to perform take-offs and landings on runway only
D aircraft shall touch down next to the landing T

187 **A set of two digits displayed vertically at or near the aerodrome control tower indicates:**

A the direction for take-off, expressed in units of ten degrees to the nearest 10° of the magnetic compass
B the last two digits of the QNH
C the direction for landing, rounded off to the magnetic heading
D the temperature

188 **When displayed in a signal area, or horizontally at the end of the runway or strip in use, a right-hand arrow of conspicuous colour indicates:**

A turns shall be made to the right before landing and after take-off
B taxiing manoeuvres shall be made to the right only
C aircraft shall take off and land to the right of the runway
D right of way shall be given to aircraft approaching from the right

189 **What does a steady green light directed toward an aircraft in flight indicate?**

A Cleared to land
B Land at this aerodrome and proceed to apron
C Give way to other aircraft and continue circling
D Return to aerodrome of departure

190 **What does a steady red light directed toward an aircraft in flight indicate?**

A Give way to other aircraft and continue circling
B Return for landing (clearances to land and to taxi will be given in due course)
C Do not land, aerodrome unsafe
D Notwithstanding any previous instructions and clearances, do not land for the time being

191 **What does a series of green flashes directed toward an aircraft in flight indicate?**

A Return for landing (clearances to land and to taxi will be given in due course)
B Cleared to land
C Give way to other aircraft and continue circling
D Land at this aerodrome and proceed to apron

192 **What does a series of red flashes directed toward an aircraft in flight indicate?**

A Do not land, aerodrome unsafe
B Continue aerodrome traffic circuit
C Leave aerodrome traffic circuit
D Cleared to land immediately

193 **What does a series of white flashes directed toward an aircraft in flight indicate?**

A Land at this aerodrome and proceed to apron (clearances to land and to taxi will be given in due course)
B Do not land at this aerodrome
C Leave traffic circuit
D Continue traffic circuit

194 **What does a red pyrotechnic light directed toward an aircraft in flight indicate?**

A Notwithstanding any previous instructions and clearances, do not land for the time being
B Danger! Leave traffic circuit immediately
C Restricted area! Leave area immediately
D Danger area! Leave area immediately

195 **What does a steady green light directed toward an aircraft on the ground indicate?**

A Cleared for take-off
B Stop!
C Return to starting point on the aerodrome
D Cleared to taxi

196 **What does a steady red light directed toward an aircraft on the ground indicate?**

A Stop!
B Taxi clear of landing area in use
C Vacate runway
D Vacate taxiway

197 **What does a series of green flashes directed toward an aircraft on the ground indicate?**

A Cleared to taxi
B Cleared for take-off
C Runway clear of obstacles
D Return to starting point on the aerodrome

198 **What does a series of red flashes directed toward an aircraft on the ground indicate?**

A Taxi clear of landing area in use
B Stop!
C Cleared for take-off
D Return to starting point on the aerodrome

199 **What does a series of white flashes directed toward an aircraft on the ground indicate?**

A Return to starting point on the aerodrome
B Cleared for take-off
C Notwithstanding any previous instructions and clearances, do not taxi and take off for the time being
D Taxi clear of landing area in use

200 **Aerodrome traffic is …**

A all the traffic on the manoeuvring area of an aerodrome and all aircraft flying in the vicinity of an aerodrome. An aircraft operating in the vicinity of an aerodrome includes but is not limited to aircraft entering or leaving an aerodrome traffic circuit
B all aircraft in the aerodrome traffic circuit
C all aircraft on the runway
D all the traffic on the manoeuvring area of an aerodrome and all aircraft entering the aerodrome traffic circuit

201 **When does an aircraft fly “downwind 16”? When it flies a heading of …**

A 340° and the aerodrome is to the left of the aircraft
B 340° and the aerodrome is to the right of the aircraft
C 160° and the aerodrome is to the left of the aircraft
D 160° and the aerodrome is to the right of the aircraft

202 **Changes of direction in the traffic circuit shall normally be made …**

A in turns to the left
B to the south
C in turns to the right
D to the north

203 **Changes of direction in the approach to landing and after take-off shall normally be made …**

A in turns to the left
B to the south
C in turns to the right
D to the north

204 **Whose signals and signs shall the pilot on the apron and parking areas of a controlled aerodrome follow?**

A Aerodrome operator
B Control tower
C Aeronautical Authorities of the Lands (federal states)
D Federal Office of Civil Aviation

205 **A pilot is performing a VFR flight to a controlled aerodrome. Radiotelephony communication with the control tower is not possible. What action shall the pilot take?**

A The pilot shall land on an aerodrome outside the control zone. It is for flight operational reasons only that the pilot may continue to the CTR

B The pilot shall proceed to the alternate aerodrome designated in the flight plan

C Under no circumstances is the pilot allowed to enter the control zone

D The pilot shall send a blind transmission and continue the flight according to the VFR entry route prescribed in the AIP

206 **During a VFR flight, the pilot has been given clearance to enter the control zone and has received and acknowledged the landing instructions. A short time afterwards, the radiotelephone fails. What action shall the pilot take?**

A Continue the flight in accordance with the clearance

B Land at an aerodrome outside the control zone and transmit an arrival message

C Continue the flight to the alternate aerodrome indicated in the flight plan

D Circle for 10 minutes outside the control zone and then continue the approach

207 **Flight visibility is defined as …**

A visibility forward from the cockpit of an aircraft in flight

B maximum visibility forward from the cockpit of an aircraft on the ground

C visibility from the cockpit of an aircraft in flight to the ground

D mean slant visibility from the cockpit of an aircraft in flight

208 **The minimum horizontal distance from cloud on a VFR flight in Class D airspace (CTR) is:**

A 1500 m

B 300 m

C 1500 ft

D 300 ft

209 **VFR flights in Class E airspace below FL 100 shall be conducted so that …**

A the pilot shall have flight visibility of at least 5 km and maintain a distance from cloud of at least 1500 m horizontally and at least 300 m (1000 ft) vertically

B the pilot shall have flight visibility of at least 8 km and maintain a distance from cloud of at least 500 m horizontally and at least 300 m (1000 ft) vertically

C the pilot shall have flight visibility of at least 5 km and maintain a distance from cloud of at least 300 m horizontally and at least 300 ft vertically

D the pilot shall have flight visibility of at least 8 km and maintain a distance from cloud of at least 1500 m horizontally and at least 300 m (1000 ft) vertically

210 **What are the requirements for VFR flights in Class G airspace at speeds of 140 kts IAS or less at and below 3000 ft AMSL/1000 ft AGL?**

A Visual contact to the ground, flight visibility at least 1500 m, clear of cloud

B Ground visibility at least 1500 m, clear of cloud

C Ground visibility at least 5 km, ceiling at least 1500 ft

D Flight visibility at least 1500 m, distance from the clouds at least 300 m horizontally and at least 2000 ft vertically

211 **Is a specific distance from cloud prescribed for VFR flights in Class G airspace at and below 3000 ft AMSL/1000 ft AGL?**

A No
B Yes, at least 1.5 km horizontally and at least 1000 ft vertically
C Yes, at least 1.5 km horizontally
D Yes, at least 1.5 NM horizontally

212 **In which class of airspace may special VFR flights be conducted?**

A In Class D airspace (CTR)
B In Classes C and D airspace
C In Class E airspace
D Only at FL 100 and above

213 **When shall the standard altimeter setting be used during VFR flights?**

A On flights above 5000 ft AMSL or 2000 ft AGL, if this level exceeds 5000 ft AMSL
B On flights below 5000 ft AMSL
C On flights up to 5000 ft AGL
D Various regulations apply in this case

214 **On VFR flights above an altitude of 5000 ft AMSL or 2000 ft AGL, if this level exceeds 5000 ft AMSL, the altimeter shall be set to:**

A 1013.2 hPa
B QFF
C QNH
D QFE

215 **On VFR flights up to an altitude of 5000 ft AMSL or 2000 ft AGL, if this level exceeds 5000 ft AMSL, the altimeter shall be set to:**

A the QNH of the aerodrome with ATC unit nearest to route of flight
B the QNH of the nearest airport
C the QFE of the nearest controlled aerodrome
D 1013.2 hPa

216 **How is the sector calculated for semi-circular cruising levels under visual flight rules? On the basis of …**

A the magnetic track
B the true chart heading
C the compass heading
D the true track

217 **Which flight level(s) shall be used on VFR flights on a magnetic track of 135° with standard altimeter setting?**

A 55, 75, 95
B 65, 85, 105
C 50, 70, 90
D 60, 80, 100

218 **Which Flight Information Regions (FIR) under German jurisdiction are there in the lower airspace?**

A Bremen, Langen, Munich
B Berlin, Hamburg, Frankfurt, Munich
C Bremen, Berlin, Hannover, Düsseldorf, Stuttgart
D Berlin, Hannover, Maastricht, Rhein, Langen

219 **A radio mandatory zone (RMZ) reaches up to an altitude of ...**

A 1000 ft AGL
B 1000 ft AMSL
C 3000 ft AMSL
D 2500 ft AGL

220 **A radio mandatory zone (RMZ) reaches from the ground to ...**

A 1000 ft AGL
B 1700 ft AGL
C 1700 ft AGL
D 2500 ft AGL

221 **Control zones in Germany are classified …**

A as Class D airspace
B mainly as Class D airspace, but in a few cases as Class C airspace
C around airports as Class C airspace, for the rest as Class D airspace
D around military aerodromes as Class B airspace, around airports as Class C airspace, and for the rest as Class D airspace

222 **A transit flight through an "HX"-designated control zone outside the hours of operation is possible without clearance if the pilot ...**

A prior to the transit flight obtains confirmation from the competent aerodrome control tower (TWR), outside the times TWR is operating, from the aerodrome flight information service INFO or from the flight information service FIS, that the control zone is not operational
B has obtained written authorization from the aerodrome commander
C obtains confirmation from the military ATC prior to commencing the transit flight that the control zone is not operational
D confirms by means of the AIP that the control zone is not operational

223 **Which airspace classes are considered controlled airspace?**

A C, D, E
B C, D, F
C E, F, G
D C, E, F

224 **Class E airspace extends, unless otherwise classified, …**

A from 1000 ft AGL and 1700 ft AGL, otherwise from 2500 ft AGL to FL 100
B from 1000 ft and 1700 ft AGL, otherwise from 5000 ft AMSL to FL 200
C from 1000 ft and 1700 ft AGL to 5000 ft AMSL
D from 1000 ft and 1700 ft AGL, otherwise from 2500 ft AGL to FL 200

225 **An "ED-R…" area is a …**

A restricted area
B danger area
C prohibited area
D restricted area for gliders

226 **An "ED-D…" area is a …**

A danger area
B restricted area
C military exercise area
D prohibited area

227 **When shall aircraft performing VFR cross-country flights be equipped with a VHF transceiver?**

A Always
B Only on flights to and from aerodromes without air traffic control
C Only on international flights
D Only on flights to controlled aerodromes

228 **VFR flights over continuous cloud cover ...**

A may be performed if the aircraft is equipped with at least a VHF transceiver and a VOR receiver or with an ADF
B may not be performed
C may be performed only with a CVFR rating
D may be performed only after ATC clearance

229 **Aircraft on VFR flights shall be equipped with an transponder …**

A in Classes C or D airspaces (non-control zone)
B in Classes C or G airspaces
C not require
D in Classes G or D airspaces (non-control zone)

230 **Which transponder mode/code shall be set unrequested by powered aircraft on VFR flights in Class E airspace above 5000 ft AMSL or 3500 ft AGL, whichever is higher?**

A A/C 7000
B The transponder shall not be used without request
C A/C 7600
D A/C 7700

231 **During descent from FL 85 to 3500 ft AMSL the pilot of a powered aircraft, prior to reaching the new cruising level, shall set the altimeter and the transponder as follows:**

A altimeter to QNH and maintain mode A/C code 7000
B altimeter to QNH 1013.2 hPa and transponder to "STAND-BY"
C altimeter to QNH and maintain mode A/C code 7600
D altimeter to QNH 1013.2 hPa and transponder to mode A/C code 7600

232 **In transponder mandatory zones (TMZ), aircraft on VFR flights shall be equipped with an …**

A automatic altitude reporting transponder which emits code 7000 without request
B automatic altitude reporting transponder which emits code 7500 without request
C automatic altitude reporting transponder which emits code 7600 without request
D automatic altitude reporting transponder which emits code 7700 without request

233 **What is the meaning of the term "AIRCRAFT-TO-STATION BEARING"?**

A Position fixing by use of on-board navigation equipment
B Terrestrial navigation
C Position fixing by use of radar on the ground
D Cross bearing by means of radio navigation stations

234 **Which radio navigation equipment can be used for ground direction finding?**

A VHF direction-finding station (VDF)
B VOR/DME unit
C NDB unit
D TACAN unit

235 **The identification of a VHF omnidirectional radio range (VOR) generally consists of …**

A three Morse code letters
B a flashing signal
C a call sign
D two Morse code letters

236 **A VOR indicator is considered a "command unit" when …**

A the display reads "FROM" and the aircraft is flying away from the VOR station
B the display reads "TO" and the aircraft is flying away from the VOR station
C the display reads "OFF" and the aircraft is approaching the VOR station
D the display reads "FROM" and the aircraft is approaching the VOR station

237 **What does the receiving range of a VHF omnidirectional radio range (VOR) depend on?**

A Flight level of the aircraft
B Type of aircraft
C Speed of the aircraft
D Aircraft heading

238 **The knob marked "OBS" on the VOR indicator is the …**

A omni bearing selector
B frequency selector
C volume control
D TO/FROM switch

239 **Which direction is the radial of a VOR station related to?**

A Magnetic north
B QTE
C Longitudinal axis of the aircraft
D True north

240 **The VHF omnidirectional radio range (VOR) operates in the frequency band …**

A 108 MHz to 117.975 MHz
B 200 MHz to 1750 MHz
C 108 MHz to 112 MHz
D 118 MHz to 137 MHz

241 **When does the TO/FROM indicator on the VOR indicator change from "TO" to "FROM"?**

A When the aircraft flies over the VOR station
B When the heading is changed by 90°
C When the heading is changed by 180°
D When the IDENT button is activated

242 **An aircraft approaches a VOR station which is set to 320°, and the direction displayed is "TO". The course deviation indicator (CDI) moves to the left. Where is the aircraft?**

A Right of the radial
B Left of the radial
C Over the radial
D South of the radial

243 **An aircraft equipped with a VOR receiver intends to fly to a VOR station on the shortest route. Which of the following statements is correct? The omni bearing selector is turned until …**

A the vertical needle has reached the central position and the TO/FROM indicator reads "TO". The value displayed by the VOR receiver indicates the direct heading to the station
B the vertical needle has reached the central position and the TO/FROM indicator reads "FROM". The value displayed indicates the direct heading to the station
C the horizontal needle has reached the central position and the "OFF flag" disappears. The value displayed indicates the direct heading to the station
D the vertical needle with a "TO flag" deflects fully to the left. The value displayed indicates the shortest route to the station

244 **What angular displacement from the radial is represented by each dot on the VOR indicator?**

A 2°
B 10°
C 5°
D 1°

245 **The ICAO 1:500000 aeronautical chart contains a reference to "TRENT 108.45 TRT". What type of radio navigation aid is this?**

A VHF omnidirectional radio range (VOR)
B Very high frequency direction-finding station (VDF)
C Non-directional radio beacon (NDB)
D Instrument landing system (ILS)

246 **During the approach to a VOR station, the OFF flag appears just before the calculated time of crossing. What is the probable reason?**

A The aircraft is above the station
B The VOR receiver has broken down
C The VOR station has broken down
D The TO/FROM indicator is defective

247 **The direction of a VOR radial corresponds to the …**

A QDR
B QDM
C QTE
D QUJ

248 **What does the identification of a non-directional radio beacon (NDB) consist of?**

A Two or three Morse code letters
B Two or three Morse code digits
C Morse code digits and letters
D Voice identification

249 **Non-directional radio beacons (NDBs) generally have a designated operational range of …**

A 15 NM to 100 NM
B 25 NM maximum
C 60 NM minimum
D far more than 100 NM

250 **Non-directional radio beacons (NDBs) operate in the …**

A LW and MW band
B VHF band
C SW band
D UHF band

251 **Which airborne navigation equipment can receive an NDB?**

A Automatic direction-finder (ADF)
B Marker receiver
C VOR receiver
D ILS receiver

252 **Which angle is displayed on the radio-bearing indicator (RBI) of the automatic direction-finder (ADF)? The angle between …**

A longitudinal axis of the aircraft and the direction to the tuned NDB
B true and magnetic north
C true north and the tuned NDB
D magnetic north and the longitudinal axis of the aircraft

253 **The magnetic heading of an aircraft is 155°. The relative bearing is 025°. What is the QDM?**

A 180°
B 360°
C 130°
D 025°

254 **Which equipment on board an aircraft is necessary for navigation by means of radio direction-finding stations?**

A VHF radiotelephone
B Transponder
C ADF
D VOR receiver

255 **An aircraft flies on a magnetic heading of 090°. The QDR transmitted is 180°. Where is the radio direction-finding station?**

A To the left of the flight path
B To the right of the flight path
C Ahead
D South of the flight path

256 **A QDM of 225° is received from an aeronautical station equipped with a VHF direction finder. Where is the aircraft?**

A North-east of the station
B South-west of the station
C South-east of the station
D South-east of the station

257 **What is the purpose of secondary radar in air traffic control?**

A Identification of aircraft, and receipt of additional information concerning VFR flights
B Early identification of bad-weather areas
C Determination of the true airspeed of aircraft
D Position fixing by the pilot

258 **What information can a pilot obtain from a radar-equipped ATC unit?**

A Position of the aircraft
B True airspeed of the aircraft
C Flight attitude of the aircraft
D Intended flight path

259 **In aviation, the abbreviation "GPS" stands for:**

A Global Positioning System
B Geographical Point System
C Great Circle Planning Screen
D GAT Positioning System

260 **In aviation, the abbreviation "GNSS" stands for:**

A Global Navigation Satellite System
B Global System for the Standardisation of Terrestrial Navigation
C Procedure for Aircraft Positioning on the Apron
D Ground-based Radionavigation System

261 **What is a GPS receiver on board an aircraft used for?**

A Evaluation and display of satellite signals for navigational purposes (e.g. position, course, speed, distance)
B Position fixing by means of on-board radar
C Determination of the distance to other aircraft
D Evaluation of signals of ground-based radio navigation systems for position and course fixing