

# Exam simulation

ATPL - Airline Transport Pilot license - Air Law



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STUDENT NAME:

DATE AND TIME:

**01. The percentage of oxygen in the air at an altitude of approximately 34 000 ft is:**

- a) 10,5%
- b) 5%
- c) 42%
- d) 21%

**02. In accordance with ICAO Annex 10 the NAVSTAR/GPS global average 95% position accuracy in SPS should be:**

- a) 22m in 3D
- b) 30m horizontally
- c) 5m vertically
- d) The data is based on the direction to the satellite determined at the location of the antenna

**03. The danger associated with low speed and/or high speed buffet**

- a) Can be reduced by increasing the load factor.
- b) Limits the manoeuvring load factor at high altitudes.
- c) Has to be considered at take-off and landing.
- d) Exists only above MMO.

**04. Working memory:**

- a) Is unlimited in size
- b) Is sensitive to interruptions which may erase all or some of its contents
- c) Varies considerably in size between an expert pilot and a novice pilot
- d) Is unlimited in duration

**05. At a given mass, the reference stall speed of a twin engine turboprop aircraft is 100 KT in the landing configuration. The minimum speed a pilot must maintain in short final is:**

- a) 115 KT
- b) 125 KT
- c) 123 KT
- d) 120 KT

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## 06. What phrase shall be used when asking for the readability of a transmission?

- a) Read back
- b) Report readability
- c) How do you read?
- d) Read you loud and clear

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## 07. The speed limitation for both IFR flights and VFR flights inside ATS airspace classified as B, when flying below 3.050 m (10.000 ft) AMLS, is:

- a) 250 KT IAS
- b) Not applicable
- c) 260 KT IAS
- d) 250 KT TAS

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## 08. The closure of a runway for a year, because of maintenance, will be published:

- a) NOTAM, AIP and MAL.
- b) Only in AIP.
- c) Only in NOTAM.
- d) In NOTAM and AIP, inclusive Supplement.

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## 09. At reference or use or Performance Manual MEP 1 Figure 3.2 Given:OAT: 25°C Pressure Altitude: 3000 ft RWY: 24L Wind: 310°/20kts Take off Mass: 4400 lbs Heavy Duty Brakes installed. Other conditions as associated in the header of the graph. What is the Accelerate and Stop Distance under the conditions given?

- a) 3750 ft
- b) 3350 ft
- c) 4000 ft
- d) 4300 ft

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## 10. Given the following data how much cargo must be moved from the forward hold to the aft hold to achieve a CG at 33% MAC? AUM 20000kg Forward Hold Cargo 6500kg Aft hold Cargo 4000kg Distance between holds 10m Current CG: 30% MAC MAC 4.6m

- a) 6000kg
- b) 2904kg
- c) 1467kg
- d) 2760kg

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**11. If you pull back the RPM lever of a constant speed propeller during a glide with idle power and constant speed, the propeller pitch will:**

- a) Increase and the rate of descent will increase.
- b) Decrease and the rate of descent will decrease.
- c) Increase and the rate of descent will decrease.
- d) Decrease and the rate of descent will increase.

**12. A CO<sub>2</sub> fire extinguisher can be used for:**  
1. a paper fire  
2. a hydrocarbon fire  
3. a fabric fire  
4. an electrical fire  
5. a wood fire  
The combination regrouping all the correct statements is:

- a) 1, 3, 5
- b) 1, 2, 3, 4, 5
- c) 2, 4, 5
- d) 2, 3, 4

**13. What is the mean temperature deviation (°C) from the ISA over 50°N 010°W ?**

- a) +9
- b) +2
- c) +13
- d) -2[see Annex]

**14. To indicate that he is no longer occupying the active runway a pilot shall report to the controller:**

- a) Runway free
- b) Runway cleared
- c) Clear of runway
- d) Runway vacated

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**15. In accordance with OPS 1, the minimum required recent experience for a pilot engaged in a single-pilot operation under IFR or at night shall be:**

- a) 5 IFR flights, including 3 take-off and 3 landings carried out during the preceding 90 days on the type or class of aeroplane in the single-pilot role.
- b) 3 IFR flights, including 3 instrument approaches, carried out during the preceding 90 days on the type/class of aeroplane in the single-pilot role.
- c) 5 IFR flights, including 3 take-off and 3 landings carried out during the preceding 30 days on the type or class of aeroplane in the single-pilot role.
- d) 5 IFR flights, including 3 instrument approaches, carried out during the preceding 90 days on the type/class of aeroplane in the single-pilot role.

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**16. A category C aeroplane can carry out a circling approach only if the meteorological visibility is higher than or equal to:**

- a) 3600 m
- b) 2400 m
- c) 1500 m
- d) 1600 m

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**17. Geodetic latitude and geocentric latitude coincide**

- a) Only on the equator.
- b) At 45°N/S.
- c) At the Poles and on the equator.
- d) Only at the Poles.

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**18. Which body of ICAO finalises the Standard and Recommended Practices (SARPS) for submission for adoption?**

- a) The Air Navigation Commission
- b) The Regional Air Navigation meeting
- c) The Council
- d) The Assembly

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**19. If the climb speed schedule is changed from 280/.74 to 290/.74 the new crossover altitude will be:**

- a) Higher
- b) Lower
- c) Only affected by the aeroplane gross mass
- d) Unchanged

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**20. During radar vectoring, the controller asks the pilot of XY-ABC to turn on to heading 360°. The correct read back of this instruction is:**

- a) Heading north, X-BC
- b) Heading three hundred sixty, X-BC
- c) Heading three six zero, X-BC
- d) A read back is not necessary as XY-ABC has been identified

**21. Which of the following abbreviated call signs of aircraft XY-ABC is correct:**

- a) XY-BC
- b) X-BC
- c) BC
- d) ABC

**22. In An Air Data Computer (ADC), aeroplane altitude is calculated from:**

- a) Measurement of outside air temperature (OAT)
- b) The difference between absolute and dynamic pressure at the fuselage
- c) Measurement of elapsed time for a radio signal transmitted to the ground surface and back
- d) Measurement of absolute barometric pressure from a static source on the fuselage

**23. A frequency of 10 GHz is considered to be the optimum for use in an airborne weather radar system because:**

- a) The larger water droplets will give good echoes
- b) Enables the aircraft to detect clear air turbulence
- c) Static interference is minimised
- d) Greater detail can be obtained at the more distant ranges of the smaller water droplets

**24. In the ATC flight plan Item 19, emergency and survival equipment carried on the flight should be indicated by:**

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**FLIGHT PLANNING**  
**ICAO MODEL FLIGHT PLAN FORM**

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- a) Placing a tick in the relevant box
- b) Circling the relevant box
- c) Listing the items carried on the 'REMARKS' line
- d) Crossing out the box relevant to any equipment not carried

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**25. The true course is 042°. The variation in the area is 6° W and the wind is calm. The deviation card is reproduced in the annex. In order to follow this course, the pilot must fly a compass heading of:**

CH	000	045	090	135	...
Dev	-2	-4	-3	-1	

- a) 040°
- b) 058°
- c) 044°
- d) 052°

**26. On hearing an urgency message a pilot shall:**

- a) Acknowledge the message immediately
- b) Impose radio silence on the frequency in use
- c) Monitor the frequency to offer assistance if required
- d) Change the frequency, because radio silence will be imposed on the frequency in use

**27. Which of these phrases is used if you want to communicate that a message: 'Consider that transmission as not sent':**

- a) Cancel my last message
- b) Disregard
- c) My last transmission is cancelled
- d) Forget it

**28. What is EGNOS (European Global Navigation Overlay System)?**

- a) Local Area Differential GPS (LADGPS)
- b) GLONASS
- c) Wide Area Differential GPS (WADGPS)
- d) GPS, Aircraft Weather Radar, Navigation radios

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**29. When an aircraft has turned 90 degrees with a constant attitude and bank, the pilot observes the following on a classic artificial horizon:**

- a) Too much nose-up and bank correct
- b) Attitude and bank correct
- c) Too much nose-up and bank too high
- d) Too much nose-up and bank too low

**30. According to PART-CAT, for turbo-prop aeroplanes, the required runway length at a destination airport is:**

- a) Less than that required at an alternate airport.
- b) More than that required at an alternate airport.
- c) The same as that required at an alternate airport.
- d) 60% greater than that required at an alternate airport

**31. An applicant for an Airline Transport Pilot Licence aeroplane shall have completed in aeroplanes not less than ..... hours, either as pilot in command or made up by not less than ..... hours as pilot-in-command and the additional flight time as co-pilot performing, under the supervision of the pilot-in-command the duties and functions of a pilot in command provided that the method of supervision employed is acceptable to the licensing authority. The stated above hours are respectively:**

- a) 250 hours and 70 hours
- b) 150 hours and 75 hours
- c) 200 hours and 100 hours
- d) 200 hours and 75 hours

**32. The correct statement about extinguishing agents on board aeroplanes is:**

- a) Water may only be used for minor fires.
- b) Halon is an effective extinguishing agent for use in aeroplanes.
- c) Burning cargo in a cargo-aeroplane is usually extinguished by using carbon dioxide.
- d) A powder extinguisher is suitable for extinguishing a cockpit fire.

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**33. The crew of a transport aeroplane prepares a flight using the following data:- Dry operating mass: 90 000 kg- Block fuel: 30 000 kg- Taxi fuel: 800 kg- Maximum take-off mass: 145 000 kg The traffic load available for this flight is:**

- a) 55 000 kg
- b) 25 000 kg
- c) 55 800 kg
- d) 25 800 kg

**34. A repetitive flight plan (RPL) is filed for a scheduled flight: Paris-Orly to Angouleme, Paris Orly as alternate. Following heavy snow falls, Angouleme airport will be closed at the expected time of arrival. The airline decides before departure to plan a re-routing of that flight to Limoges.**

- a) The RPL must be cancelled for that day and a specific flight plan has to be filed.
- b) The pilot-in-command must advise ATC of his intention to divert to Limoges at least 15 minutes before the planned time of arrival.
- c) It is not possible to plan another destination and the flight has to be simply cancelled that day (scheduled flight and not chartered).
- d) The airline's 'Operations' Department has to transmit a change in the RPL at the ATC office, at least half an hour before the planned time of departure.

**35. What is measured in order to establish aircraft position in relation to the localiser beam on an ILS?**

- a) The bearing to the localiser antenna found by means of a loop antenna.
- b) The difference in phase between the 90 Hz modulation and the 150 Hz modulation.
- c) The difference in time between the 90 Hz modulation and the 150 Hz modulation.
- d) The difference in depth between the 90 Hz modulation and the 150 Hz modulation.

**36. Concerning the NAVSTAR/GPS satellite navigation system, what is the meaning of the term 'Receiver Autonomous Integrity Monitoring' (RAIM)?**

- a) It is a technique by which a receiver ensures the integrity of the navigation information
- b) It is a technique whereby the receivers of the world-wide distributed monitor stations (ground segment) automatically determines the integrity of the navigation message
- c) It is a method whereby a receiver ensures the integrity of the Pseudo Random Noise (PRN) code transmitted by the satellites
- d) 6

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**37. The principle used in VOR bearing measurement is:**

- a) Phase comparison
- b) Difference in depth of modulation
- c) Beat frequency discrimination
- d) Envelope matching

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**38. A "landing compass" is:**

- a) The compass used as reference during landing.
- b) Painted on the ground at airfields to indicate the direction of the cardinal magnetic headings to observers on the ground or in the air.
- c) A compass on which the runway direction for landing may be set as a "bug".
- d) Used to establish aircraft magnetic heading during a compass swing.

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**39. When the centre of gravity is at the forward limit, an aeroplane will be:**

- a) Extremely stable and require small elevator control to change pitch.
- b) Extremely stable and will require excessive elevator control to change pitch.
- c) Extremely unstable and require small elevator control to change pitch.
- d) Extremely unstable and require excessive elevator control to change pitch.

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**40. According to the recommended noise abatement procedures contained in the ICAO PANS OPS 8168 Volume I part V, data available indicates that the procedure which results in noise relief during the part of the procedure close to the airport:**

- a) Is NAD procedure 2
- b) Is NAD procedure 1
- c) Depends on the wind component
- d) Is either procedure 1 or 2, because there is no difference in noise distribution

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**41. In general transport aeroplanes with power assisted flight controls are fitted with an adjustable stabilizer instead of trim tabs on the elevator. This is because:**

- a) The pilot does not feel the stick forces at all
- b) Effectiveness of trim tabs is insufficient for those aeroplanes
- c) Trim tab deflection increases  $M_{crit}$
- d) Mechanical adjustment of trim tabs creates too many problems

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**42. A signal sent by radiotelephony consisting of the spoken word MAYDAY MAYDAY MAYDAY means:**

- a) The aircraft has a very urgent message to transmit concerning the safety of a ship, aircraft or vehicle
- b) The aircraft has a message to transmit concerning adverse weather conditions along its route of flight
- c) Imminent danger threatens the aircraft and immediate assistance is required
- d) The aircraft is forced to perform a fuel dumping procedure

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**43. The temperature at FL 160 is -22°C. What will the temperature be at FL 90 if the ICAO standard lapse rate is applied ?**

- a) -4°C
- b) -8°C
- c) What will the temperature be at FL 90 if the ICAO standard lapse rate is applied ? -4°C -8°C +4°C
- d) 0°C

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**44. In order to get rid of excess nitrogen following scuba diving, subsequent flights should be delayed**

- a) 3 hours after non decompression diving
- b) 24 hours
- c) 48 hours after a continuous ascent in the water has been made
- d) 36 hours after any scuba diving

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**45. The distress signal and the distress message to be sent by an aircraft in distress be on:**

- a) The emergency frequency in any case
- b) The air-ground frequency in use at the time
- c) The FIS frequency designated for the airspace concerned
- d) The regional guard frequency

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**46. The convention on offences and certain acts committed on board aircraft, is:**

- a) The convention of Tokyo
- b) The convention of Chicago
- c) The convention of Rome
- d) The convention of Paris

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**47. Flight Director Information supplied by an FD computer is presented in the form of command bars on the following instrument:**

- a) RMI Radio Magnetic Indicator.
- b) BDHI Bearing Distance Heading Indicator.
- c) HSI Horizontal Situation Indicator.
- d) ADI Attitude Director Indicator.

**48. A "slat" is:**

- a) A leading edge high lift device, hinged at its forward edge, which increases the camber and leading edge radius of the main aerofoil when deployed.
- b) A trailing edge device which is automatically deployed by movement of the stagnation point at high angles of attack.
- c) An auxiliary, cambered aerofoil positioned forward of the main aerofoil so as to form a slot.
- d) A fixed slot in the leading edge of some older types of aircraft.

**49. At the flight preparation stage, the following parameters in particular are available for determining the mass of the aircraft:1- Dry operating mass 2- Operating mass Which statement is correct:**

- a) The operating mass is the mass of the aircraft without take-off fuel.
- b) The dry operating mass includes take-off fuel.
- c) The dry operating mass includes fixed equipment needed to carry out a specific flight.
- d) The operating mass includes the traffic load.

**50. With too much cohesion, Groupthink can be:**

- a) Popular and positive
- b) Positive and far-reaching
- c) Positive
- d) Negative

**51. During take-off you notice that, for a given elevator input, the aeroplane rotates much more rapidly than expected. This is an indication that :**

- a) The centre of gravity may be towards the aft limit.
- b) The centre of pressure is aft of the centre of gravity.
- c) The centre of gravity is too far forward.
- d) The aeroplane is overloaded.

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**52. If, in the event of a failure, there is no significant out-of-trim condition or deviation of flight path or attitude but the landing is not completed automatically, such an automatic landing system is considered as:**

- a) Fail-operational.
- b) Fail-safe.
- c) Fail-passive.
- d) Fail-redundant.

**53. What is the correct suffix to be used when establishing radio contact in an area control centre?**

- a) Control
- b) Centre
- c) Control centre
- d) Radio

**54. What does the abbreviation 'H24' mean?**

- a) Sunrise to sunset
- b) Continuous day and night service
- c) No specific working hours
- d) Sunset to sunrise

**55. A sector distance is 450 NM long. The TAS is 460 kt. The wind component is 50 kt tailwind. What is the still air distance?**

- a) 414 Nautical Air Miles (NAM)
- b) 499 Nautical Air Miles (NAM)
- c) 511 Nautical Air Miles (NAM)
- d) 406 Nautical Air Miles (NAM)

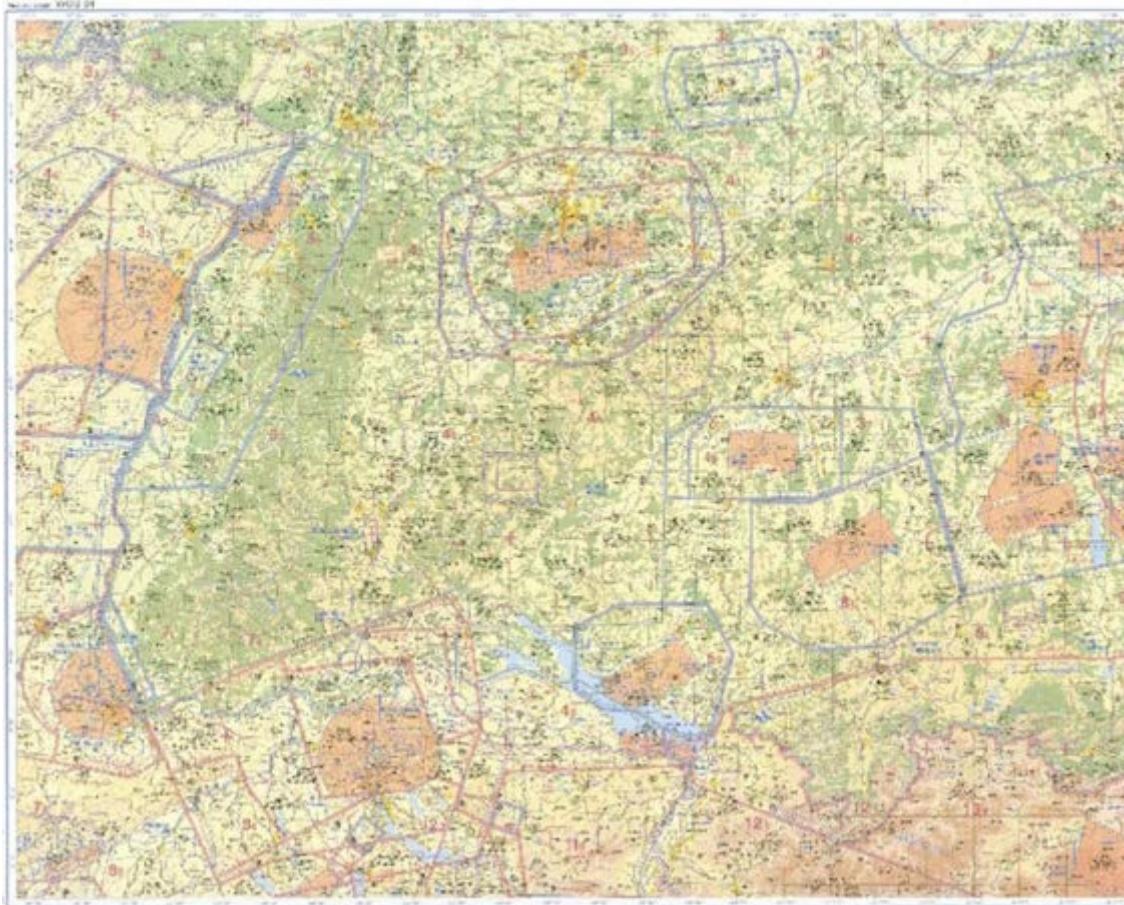
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56. Refer to the General Student Pilot Route Manual - VFR Chart ED-4 Give the frequency of STUTTGART ATIS.



- a) 119.05 MHZ
- b) 135.775 MHz
- c) 116.12 kHz
- d) 126.12 MHz

57. For a VFR aircraft, the conditions in which it could encounter severe airframe icing are:

- a) Flight into supercooled rain, resulting in rime ice formation
- b) Flight into an area outside of clouds where the temperature is below 0°C, resulting in rime ice formation
- c) Flight into freezing rain, resulting in clear ice formation
- d) Flight between two cloud layers, without precipitation, resulting in clear ice formation

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**58. The capacity of the short-term memory is:**

- a) About 30 items
- b) Very limited - only one item
- c) Unlimited
- d) About 7 items

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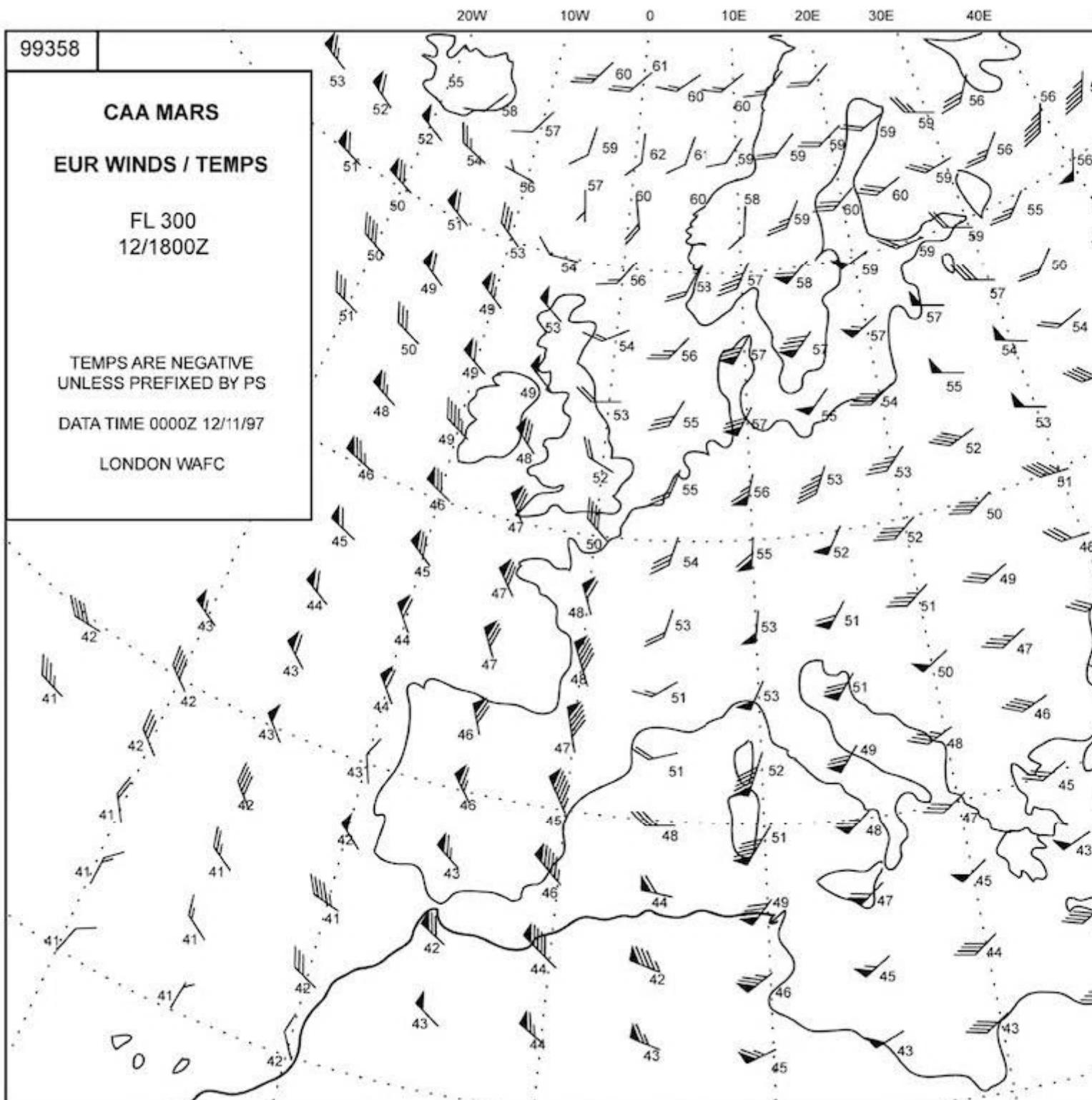
**59. The W/V ( $^{\circ}/kt$ ) at  $60^{\circ}$  N  $015^{\circ}$  W is**

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- a) 320/60
- b) 300/70
- c) 115/60
- d) 300/60

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**60. Given: TAS = 480 kt, HDG (°T) = 040°, W/V = 090/60kt. Calculate the Track (°T) and GS?**

- a) 028 - 415 kt
- b) 034 - 445 kt
- c) 036 - 435 kt
- d) 032 - 425 kt

**61. Assuming ISA conditions, climbing at a constant Mach Number up to FL 350 the TAS will:**

- a) Increase
- b) First increase, then decrease
- c) Remain constant
- d) Decrease

**62. In addition to informing each State, whose citizens are known to be on board an aircraft, the State of the country in which an aircraft has landed after an act of unlawful interference must immediately notify the:**

- a) State of Registry of the aircraft, the State of the operator and ICAO
- b) State of Registry of the aircraft and the State of the operator only
- c) State of the operator, the J. and ICAO
- d) State of Registry of the aircraft and the J.

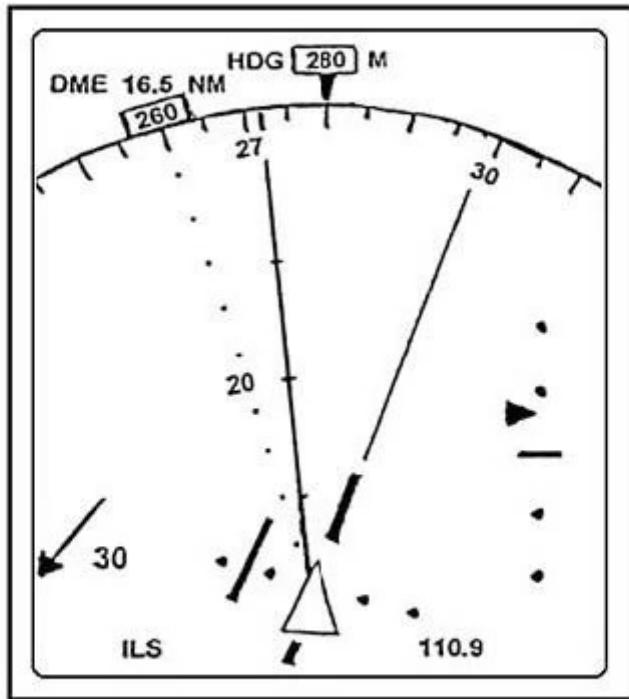
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63. The letters QTX and adjacent symbol indicate a:



- a) VOR
- b) TACAN
- c) Airport
- d) Figure 2

64. You are flying from Munich to Amsterdam. Which of the following flight levels would you choose in order to avoid turbulence and icing?

- a) FL 180
- b) FL 320
- c) FL 140
- d) FL 260[see Annex]

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**65. When flying through a thunderstorm with lightning you can protect yourself from flashblindness by:**  
a) turning up the intensity of cockpit lights  
b) looking inside the cockpit  
c) wearing sunglasses  
d) using face blinds or face curtains when installed

- a) A) and b) are correct, c) and d) are false
- b) A), b) and c) are correct, d) is false
- c) C) and d) are correct, a) and b) are false
- d) A), b), c) and d) are correct

**66. If an aircraft maintaining a constant CAS and flight level is flying from a cold air mass into warmer air:**

- a) TAS decreases.
- b) Mach number increases.
- c) Mach number decreases.
- d) TAS increases.

**67. What is the Q-code for 'magnetic bearing from the station'?**

- a) QTE
- b) QDM
- c) QDR
- d) QFE

**68. The polar front is the boundary between:**

- a) Maritime polar air and continental polar air.
- b) Polar air and tropical air.
- c) Arctic air and tropical air.
- d) Arctic air and polar air.

**69. What does the abbreviation 'IMC' mean?**

- a) In most cases
- b) International meteorological channel
- c) Instrument meteorological conditions
- d) In meteorological conditions

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**70. An aeroplane has the following flap settings: 0°, 15°, 30° and 45°. Slats can also be selected. Which of the following selections will most adversely affect the CL / CD ratio?**

- a) Flaps from 30° to 45°
- b) Flaps from 15° to 30°
- c) Flaps from 0° to 15°
- d) The slats

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## Response Scheme

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

01: **D**

02: **D**

03: **B**

04: **B**

05: **C**

06: **C**

07: **B**

08: **D**

09: **A**

10: **C**

11: **C**

12: **B**

13: **D**

14: **D**

15: **D**

16: **B**

17: **C**

18: **A**

19: **B**

20: **C**

21: **B**

22: **D**

23: **A**

24: **D**

25: **D**

26: **C**

27: **B**

28: **C**

29: **D**

30: **C**

31: **A**

32: **B**

33: **D**

34: **A**

35: **D**

36: **A**

37: **A**

38: **D**

39: **B**

40: **B**

41: **B**

42: **C**

43: **B**

44: **B**

45: **B**

46: **A**

47: **D**

48: **C**

49: **C**

50: **D**

51: **A**

52: **C**

53: **A**

54: **B**

55: **D**

56: **D**

57: **C**

58: **D**

59: **D**

60: **B**

61: **D**

62: **A**

63: **D**

64: **D**

65: **D**

66: **D**

67: **C**

68: **B**

69: **C**

70: **A**

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## Response form

Use this form to mark your answers

01: \_\_\_\_\_

02: \_\_\_\_\_

03: \_\_\_\_\_

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