

INFRASTRUCTURES DEL TRANSPORT AERI (ITA)

Final Exam - Spring semester 2016

Correct answer: +1 point – Incorrect answer: -1/3 points – Blank answer: 0 points

For each question **only one answer** is correct

Assignatura 00213 – Centre 300 – Parcial 01 – Permutació A:0 B:1 C:2 D:3

Permutació A

1. Airspace Management (ASM) is responsible for:
 - (a) all the answers are correct.
 - (b) the analysis and allocation of ATS capacities.
 - (c) the airspace design and modelling.
 - (d) the civil/military coordination.
2. What is the main reason why airspace is separated into FIR and UIR nowadays?
 - (a) to separate turboprop aircraft from jets. Turboprops use FIR while jets use UIR.
 - (b) to separate turboprop aircraft from jets. Turboprops use UIR while jets use FIR.
 - (c) for historical reasons. In fact, not all states distinguish between FIR and UIR nowadays.
 - (d) none of the other answers are correct.
3. Which of the following airspace volumes is, in general, the smallest one?
 - (a) TMA.
 - (b) CTR.
 - (c) ATC.
 - (d) ATZ.
4. During a descent, when the pilot reaches the transition level, he/she shall...
 - (a) change the altimeter setting from QNH to STD.
 - (b) change the altimeter setting from STD to QNH.
 - (c) change the altimeter setting from QFE to STD.
 - (d) do nothing in particular regarding the altimeter setting.
5. Which of the following items **do not** affect the capacity value of an en-route sector:
 - (a) the route structure of the sector.
 - (b) the expected traffic demand on that sector.
 - (c) the forecast weather conditions for that sector.
 - (d) all other items can affect the capacity of the sector.
6. What is a CBA (cross-border area)?
 - (a) a type of flexible use of airspace that spans over international boundaries
 - (b) a TMA that spans over international boundaries
 - (c) a FIR that spans over international boundaries
 - (d) a CTR that spans over international boundaries
7. Regarding the flexible use of airspace (FUA) concept, the second level (pre-tactical level) deals with:
 - (a) The definition of national airspace policy and predetermined airspace structures.
 - (b) The day-to-day allocation of airspace, according to users requirements.
 - (c) The real-time use and management of available airspace.
 - (d) The definition of the sectorisation and capacity of the military airways.
8. A secondary objective of air traffic flow and capacity management (ATFCM) is...
 - (a) to maximize the use of available airspace resources and coordination among them.
 - (b) not only slot allocation but also optimization of the network capacity.
 - (c) to monitor the network operations.
 - (d) all the answers are correct.
9. Which of the following ATFM initiatives is the most widely used in Europe and in the U.S.?
 - (a) Ground holding.
 - (b) Level capping.
 - (c) Call for release.
 - (d) Miles in trail.
10. European airports are...
 - (a) typically regulated by *schedule* (or IATA) slots that suppose a rather worst case IMC scenario.
 - (b) are not regulated at all.
 - (c) are only regulated if the demand exceeds the capacity.
 - (d) are only regulated in certain ECAC countries.
11. In Europe, when a strike (union action) from French ATC is expected for the next week...
 - (a) ATFM regulations take place.
 - (b) IATA regulations take place.
 - (c) airspace sectors are redesigned creating new sectorisations capable to handle the maximum amount of traffic demand.
 - (d) some airports outside France may be closed.
12. Which of the following programs needs to be implemented in a wide area with multilateral agreements and involving (in the European case) several states?
 - (a) Air Traffic Services.
 - (b) Air Traffic Flow Management.
 - (c) Airspace Management.
 - (d) Flexible Use of Airspace.

13. According to the following definitions: EOBT (Estimated Off-Block Time), ETOT (Estimated take-off time), ETO (Estimated Time Over), COBT (Calculated Off-Block Time), CTOT (Calculated Take-Off Time), CTO (Calculated Time Over); which of the following time relationships is correct for an aircraft that has been affected by a ground holding ATFM regulation:
 - (a) $CTO = EOBT + \text{Ground Delay} + \text{Taxi Time}$
 - (b) $CTO = COBT + \text{Taxi Time} + \text{Trip Time}$
 - (c) $CTO = ETO$
 - (d) $CTO = ETOT + \text{Trip Time}$
14. An airspace sector has been regulated and its maximum capacity is set to 6 aircraft per hour. Table 1 depicts the Estimated Time Over (ETO) the concerned sector for a given set of aircraft. What is the ATFM delay that would be assigned to AFR022 according to the computed assisted slot allocation (CASA) algorithm?
 - (a) No delay.
 - (b) 1 minute.
 - (c) 4 minutes.
 - (d) 19 minutes.
15. An airspace sector has been regulated and its maximum capacity is set to 6 aircraft per hour. Table 1 depicts the Estimated Time Over (ETO) the concerned sector for a given set of aircraft. What is the ATFM delay that would be assigned to SIA069 according to the computed assisted slot allocation (CASA) algorithm?
 - (a) No delay.
 - (b) 1 minute.
 - (c) 5 minutes.
 - (d) 10 minutes.
16. An airspace sector has been regulated and its maximum capacity is set to 6 aircraft per hour. Table 1 depicts the Estimated Time Over (ETO) the concerned sector for a given set of aircraft. What is the ATFM delay that would be assigned to IBE077X according to the computed assisted slot allocation (CASA) algorithm?
 - (a) No delay.
 - (b) 1 minute.
 - (c) 5 minutes.
 - (d) 10 minutes.
17. An airspace sector has been regulated and its maximum capacity is set to 6 aircraft per hour. Table 1 depicts the Estimated Time Over (ETO) the concerned sector for a given set of aircraft. If the first slot (slot #1) is given at 10h00, which aircraft will take slot #7?
 - (a) This slot will not be used by any aircraft.
 - (b) ICC002
 - (c) AFR022
 - (d) AZA333
18. Strategic ATFM should:
 - (a) Balance flights next day with available ATC Capacity.
 - (b) Match long-term demand and needed ATC capacity.
 - (c) Manage current flights with existing ATC capacity.
 - (d) Define the national airspace policy and predetermined airspace structures.
19. What is a Flow Management Position (FMP)?
 - (a) a special position within an ATC area control center devoted to ATFM issues and interfacing the center with the CFMU.
 - (b) the European implementation of ATFM, managed by Eurocontrol.
 - (c) the results of running the CFMU PREDICT system the day before of operations (D-1) allowing Eurocontrol to define the ATFM measures that will be applied the D day.
 - (d) the CFMU system (or facility) that processes the flight plans sent by the aircraft operators.
20. Which of the following CFMU systems implements the Computer Assisted Slot Allocation (CASA) algorithm?
 - (a) The RPL
 - (b) The IFPS
 - (c) The ETFMS
 - (d) The PREDICT
21. Which of the following controlled airspace zones is sized to accommodate, approximately, all the aircraft flying standard instrumental departures?
 - (a) The ATZ.
 - (b) The CTR.
 - (c) The TMA.
 - (d) The ATC.
22. Which of the following controlled airspace zones is sized to accommodate, approximately, all the aircraft flying standard terminal arrival routes?
 - (a) The ATZ.
 - (b) The CTR.
 - (c) The TMA.
 - (d) The CTA.
23. Flight information services shall be provided to...
 - (a) all aircraft provided with ATC service (*).
 - (b) any aircraft known by the ATS (*).
 - (c) only VFR flights.
 - (d) the two answers labeled with (*) are correct.
24. Which of the following is a clear objective of the air traffic control (ATC) service?
 - (a) To expedite and maintain an orderly flow of air traffic.
 - (b) To provide advice and information useful for the safe and efficient conduct of flights.
 - (c) To notify appropriate organisations regarding aircraft in need of search and rescue aid, and assist such organisations as required.
 - (d) All answers are correct.
25. Air Traffic Control (ATC) services shall be provided to:
 - (a) All VFR flights in airspace classes B, C, and D.
 - (b) All IFR flights.
 - (c) All aircraft known by the ATS.
 - (d) None of the other answers is correct.

26. Which is the Uncertainty Phase?
- Incerfa
 - Alerfa
 - Detresfa
 - Palerfa
27. If an aircraft declares an emergency, communicating that the fuel on board is insufficient for a safe landing, which of the following phases shall be activated?
- Uncertainty phase.
 - Alert phase.
 - Distress phase.
 - Awareness phase.
28. Which of the following transponder codes indicates *unlawful interference*?
- 7500.
 - 7600.
 - 7700.
 - None of the other answers is correct.
29. What ATIS stands for? (when talking about the provision of ATS)
- Automatic Terminal Information Service.
 - Aircraft Transponder Information Service (transponder mode S).
 - Aircraft Transmission Incertitude System (awareness system).
 - Autonomous Test for Integrity System.
30. In airspace class C, separation services are provided...
- only between two conflicting VFR flights.
 - only between two conflicting IFR flights.
 - between two conflicting IFR flights, between an IFR conflicting with a VFR or SVFR, and between two SVFR flights.
 - to all IFR and VFR flights in the airspace.
31. Which of the following options is correct, when talking about an ILS?
- the glideslope is the ground-based system and the localiser is the on-board system, both sending the appropriate navigation signals.
 - the localiser is the ground-based system and the transponder is the on-board system, both sending the appropriate navigation signals.
 - the localiser and the glideslope are ground-based systems that send different navigation signals.
 - the localiser and the glideslope are ground-based systems that send the same redundant navigation signal.
32. The main difference between a VOR and a NDB is that...
- the VOR emits with much more signal power than the NDB.
 - the NDB emits with much more signal power than the VOR.
 - with an NDB the pilot only knows a relative bearing to the NDB station, while with the VOR the pilot knows the position of the aircraft.
 - with an NDB the pilot only knows a relative bearing to the NDB station, while with the VOR the pilot has directional information (relative to the magnetic North) with respect to the VOR station.
33. The reduction of the VHF channel spacing is crucial in the European civil aviation...
- to enhance the aircraft navigation accuracy.
 - to minimise the errors in radio telephone (RTF) communications.
 - to create a new set of pilot-controller communication messages.
 - because more frequency channels could be needed to increase the capacity of the overall system.
34. How do ATC collaterals coordinate for exchanging information?
- Ground/Air communication: HF band.
 - Dedicated VHF channels.
 - Dedicated voice/data links.
 - Ground/Air communication: VHF band.
35. Which of these statements is correct:
- The DME aid generates a curved line of position (LOP).
 - The DME aid generates a straight line of position (LOP).
 - The DME aid is 1° accurate.
 - The DME is used to define airways.
36. Regarding the Satellite Based Augmentation System (SBAS)...
- It is a system that supports a wide-area or regional augmentation by using several additional satellite broadcast messages.
 - Such systems are commonly composed of multiple ground stations, located at accurately-surveyed points.
 - The ground stations take measurements of one or more GNSS satellite signals and other environmental factors which may impact the signal received by the users.
 - All the answers are correct.
37. Which of the following statements is correct?
- While accuracy is the proximity of measurement results to the true value, precision is a measure of the repeatability or reproducibility of the measurement.
 - While precision is the proximity of measurement results to the true value, accuracy is a measure of the repeatability or reproducibility of the measurement.
 - The accuracy is defined as the probability that the precision requirement will be supported by the navigation system throughout a flight operation or flight hour.
 - The precision is defined as the probability that the accuracy requirement will be supported by the navigation system throughout a flight operation or flight hour.
38. Which transponder mode can transmit the automatic dependent surveillance - broadcast (ADS-B) messages?
- Mode A.
 - Mode B.
 - Mode C.
 - Mode S.

39. What does *broadcast* mean, in the context of ADS-B?
- that all ADS-B messages are automatically stored in a database.
 - that the ADS-B messages are automatically computed without the active action of the pilot.
 - that the ADS-B messages are continuously transmitted.
 - that the ADS-B messages are continuously requested by ground ATC facilities.
40. Regarding the Instrumental Approach Chart (IAC) **Amarillo Intl. (AMA) VOR/DME RWY 22** annexed to this exam, the minimum decision altitude for an aircraft of Category C in a straight-in approach is
- 4080 ft.
 - 3960 ft
 - the approach depicted in this chart cannot be considered straight-in.
 - in this chart Decision Altitudes are published and not minimum decision altitudes.
41. Regarding the Instrumental Approach Chart (IAC) **Amarillo Intl. (AMA) VOR/DME RWY 22** annexed to this exam, the landing minima for an aircraft of Category C in approach to **runway 31** are:
- 4080 ft of MDA and 1.5 statute miles of visibility.
 - 4080 ft of MDA and 1 statute mile of visibility.
 - 3960 ft of DA and 0.5 statute miles of visibility.
 - 3960 ft of MDA and 0.5 statute miles of visibility.
42. Regarding the Instrumental Approach Chart (IAC) **Amarillo Intl (AMA) VOR/DME RWY 22** annexed to this exam, an aircraft starting an approach at the DEXBE IAF will execute:
- a 45/180 reversal procedure.
 - a base turn reversal procedure.
 - a racetrack procedure.
 - a direct approach following the VOR PNH.
43. Regarding the Instrumental Approach Chart (IAC) **Amarillo Intl (AMA) VOR/DME RWY 22** annexed to this exam, the final approach segment is
- a NDB course.
 - a dead-reckoning leg.
 - a VOR radial.
 - there is no final segment in this procedure.
44. Regarding the Instrumental Approach Chart (IAC) **Amarillo Intl (AMA) VOR/DME RWY 22** annexed to this exam...
- it is a non precision and straight-in approach.
 - it is a non precision and circling to approach.
 - it is a precision and straight-in approach.
 - it is a precision and circling to approach.
45. Regarding the Instrumental Approach Chart (IAC) **Amarillo Intl (AMA) VOR/DME RWY 22** annexed to this exam, the holding fix of the holding procedure defined at the end of the missed approach procedure is defined by:
- the intersection of two NDB courses.
 - the intersection of two VOR radials.
 - the intersection of a VOR radial and a DME arc.
 - the PNH VOR/DME facility.
46. Consider the Instrumental Approach Chart (IAC) **Amarillo Intl (AMA) VOR/DME RWY 22** annexed to this exam. Imagine an aircraft established in the final approach segment and in present strong wind conditions from the south. If we assume that the pilot is correctly using the final approach radionavigation guidance, the **heading** of the aircraft will be:
- 055
 - 235
 - greater than 235
 - smaller than 235
47. Consider the Instrumental Approach Chart (IAC) **Amarillo Intl (AMA) VOR/DME RWY 22** annexed to this exam. Imagine an aircraft is instructed to hold at JIKPI after executing the missed approach procedure. The aircraft will enter the hold with...
- a racetrack entry procedure.
 - a direct entry procedure.
 - an offset entry procedure.
 - a parallel entry procedure.
48. Consider the Instrumental Approach Chart (IAC) **Amarillo Intl (AMA) VOR/DME RWY 22** annexed to this exam. How is the MAPt defined?
- in this procedure, there is no MAPt.
 - the MAPt is defined over the PNH VOR/DME facility at the MDA.
 - the MAPt is defined at the intersection 235°/0.5NM of PNH VOR/DME and at the MDA.
 - the MAPt is defined by a timing of 0.5 minutes after overflying the FAF and at the MDA.
49. Consider the Instrumental Approach Chart (IAC) **Amarillo Intl (AMA) VOR/DME RWY 22** annexed to this exam. The zone P-47 that appears North of the IAF DEXBE is...
- a Dangerous zone.
 - a Parachuting zone.
 - a Prohibited zone.
 - a Restricted zone.
50. Regarding the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam, the aircraft operator will publish for their crew a...
- decision altitude.
 - minimum descent altitude.
 - obstacle clearance altitude.
 - ILS minimum altitude.
51. Regarding the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam, the initial approach segment that starts at EON VOR/DME is...
- a dead-reckoning segment that depends on the aircraft speed.
 - a localizer course.
 - a ILS course.
 - a tear-drop procedure.

52. Regarding the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam, the intermediate approach segment is...
- a VOR radial.
 - a NDB course.
 - an ILS glide path segment.
 - there is no intermediate segment in this procedure.
53. Regarding the Instrumental Approach Chart (IAC) **Leon ILS RWY23**, annexed to this exam the missed approach segment is...
- mainly composed by two VOR radials.
 - mainly composed by a VOR radial and a DME arc.
 - mainly composed by a dead-reckoning leg and a VOR radial.
 - a tear-drop procedure
54. Regarding the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam...
- It is a straight-in and a precision approach.
 - It is a straight-in and a non precision approach.
 - It is a circling and a precision approach.
 - It is a circling and a non precision approach.
55. Regarding the Instrumental Approach Chart (IAC) **Leon ILS RWY23**, annexed to this exam, the radionavigation aid labeled as *ILE* is a:
- Localizer.
 - VOR/DME.
 - DME.
 - Locator.
56. Consider the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam. Imagine an aircraft is instructed to hold at EON after executing the missed approach procedure. The aircraft will enter the hold with...
- a tear-drop entry procedure.
 - a direct entry procedure.
 - an offset entry procedure.
 - a parallel entry procedure.
57. Consider the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam. What is the OCH for an aircraft of category C executing an approach to runway 05?
- 3269 ft.
 - 273 ft.
 - 4000 ft.
 - 1000 ft.
58. Consider the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam. How is the MAPt defined?
- in this procedure, there is no MAPt.
 - the MAPt is defined over the EON VOR/DME facility at the MDA.
 - the MAPt is defined at the intersection 228°/6.1NM of EON VOR/DME and at the MDA.
 - the MAPt is defined over the runway threshold and at the DA.
59. ICAO regulations classify the aircraft according to their speed at the threshold as:
- Heavy, Medium and Light.
 - A, B, C, D, E and H.
 - CAT-I, CAT-II, CAT-IIIa, CAT-IIIb and CAT IIIc.
 - APV-I and APV-II.
60. A circling to approach...
- is the same than a non precision approach.
 - is the same than an APV approach.
 - is an approach that cannot be considered as a straight-in approach.
 - is only for approaches where the final approach segment has a miss-alignment of 15 degrees or more.
61. An APV is a:
- a precision approach with vertical guidance.
 - an approach with vertical guidance but with navigation performances worse than precision approaches.
 - an approach procedure where only vertical guidance is provided (but not lateral).
 - an approach procedure where only lateral guidance is provided (but not vertical).
62. Which of these statements is **correct**?
- Precision approaches provide vertical guidance in the final approach segment, while APV and non precision approaches do not provide any vertical guidance.
 - Precision and APV approaches provide vertical guidance in the final approach segment, while non precision approaches do not provide any vertical guidance.
 - Precision approaches provide vertical guidance in the initial, intermediate and final approach segments, while APV and non precision approaches do not provide any vertical guidance.
 - APV approaches are those where the final approach segment is executed visually.
63. An approach procedure using a DME as principal guidance system in the final approach segment is...
- a precision approach.
 - a non-precision approach.
 - an APV approach.
 - a DME cannot be used as principal guidance system in the final approach segment.
64. An approach procedure using a Locator as principal guidance system in the final approach segment is...
- a precision approach.
 - a non-precision approach.
 - an APV approach.
 - a Locator cannot be used as principal guidance system in the final approach segment.
65. The OCA...
- is the safety margin between the aircraft and the highest obstacle in the final approach segment.
 - is the minimum visibility required for an instrumental approach procedure.

- (c) is a synonym of minimum descent altitude.
(d) None of the other answers are correct.
66. Who is responsible to publish the OCA/H in an instrumental approach chart (IAC)?
- (a) The aircraft operator.
(b) The aircraft manufacturer.
(c) Eurocontrol.
(d) The appropriate ANS national administration.
67. Which of the following statements is correct?
- (a) The appropriate national administration must approve the MDA computed by the aircraft operators.
(b) The appropriate national administration must compute and publish the MDA in the AIP charts.
(c) The aircraft operator must compute and publish the OCA in the charts used by their pilots.
(d) The aircraft operator must compute and publish the OCA in the AIP charts.
68. In a VOR approach procedure, the decision to land or to execute a missed approach must be taken, at the latest...
- (a) when reaching the MDA.
(b) when reaching the DA.
(c) when reaching the OCA.
(d) when reaching the MAPt.
69. When executing an approach procedure, in which case the pilot can proceed below the published MDA?
- (a) only if executing a precision approach procedure.
(b) only when the MAPt has been overflown.
(c) only when the pilot has visual contact with the runway and decides to land.
(d) only when the FAF has been overflown.
70. Given a specific runway, which of the approaches will lead (in general) to the lowest MDA or DA?
- (a) a VOR circling to approach approach procedure.
(b) a VOR straight-in approach approach procedure.
(c) a ILS CAT-I straight-in approach approach procedure.
(d) a ILS CAT-II straight-in approach approach procedure.
71. Which of the following procedures the final approach segment can start at the *end of turn*?
- (a) Only in a precision approach.
(b) Only in a non-precision approach.
(c) Only in an APV approach.
(d) The final approach segment can never start at the *end of turn*.
72. The MAPt can be defined...
- (a) above a VOR.
(b) at the intersection of an NDB course and a DME arc.
(c) at a given time after overflying the FAF.
(d) all answers are correct.
73. A racetrack procedure...
- (a) is a type of holding pattern.
(b) could be, for instance, a 45/180 procedure turn.
(c) is when an aircraft uses an active runway to taxi in the opposite direction from which it will take off or has landed.
(d) None of the other answers are correct.
74. In a precision approach, the final segment ends:
- (a) at the MAPt.
(b) at the FAF or FAP.
(c) at the end of turn.
(d) when reaching the DA while following the final approach track.
75. The direction, with respect to the North, to which the actual path of the aircraft is pointing to, is called...
- (a) track.
(b) heading.
(c) course.
(d) bearing.
76. The angle, with respect to the North, of the line formed by the actual position of the aircraft and a given destination waypoint or fix is called...
- (a) track.
(b) heading.
(c) course.
(d) bearing.
77. Which of the following aircraft instruments are mainly used to perform the *aviate* function in IMC conditions?
- (a) the VOR, the ADF (NDB receiver) and the DME.
(b) the artificial horizon, the airspeed indicator and the altimeter.
(c) the *aviate* function is always executed visually and no instruments are required.
(d) all engine related instruments.
78. Which of the following methods is not valid to define an IFR radionavigation FIX:
- (a) Overflying a facility.
(b) Some timing after overflying a facility.
(c) The intersection of a VOR radial and a NDB course.
(d) An important visual landmark.
79. Which of the following statements is correct?
- (a) In general, the majority of aircraft will arrive at the cruise altitude when finishing the SID (*).
(b) In general, the majority of aircraft will start the descent from the cruise altitude when starting the STAR (*).
(c) Both answers marked with a (*) are correct.
(d) None of the other answers is correct.
80. Which of the following answers enumerate three different legs of the standard airfield traffic pattern?
- (a) downwind, base and final.
(b) VOR radial, DME arc and NDB course.
(c) inbound, outbound and timing.
(d) racetrack, reversal and dead-reckoning.

81. Standard airfield traffic patterns are...
- with turns to the right and at 1000 ft above the aerodrome elevation.
 - with turns to the right and at 2000 ft above the aerodrome elevation.
 - with turns to the left and at 1000 ft above the aerodrome elevation.
 - with turns to the left and at 2000 ft above the aerodrome elevation.
82. Which is the principal method of navigation for VFR flights?
- dead reckoning.
 - radar vectoring.
 - RNAV.
 - Locator courses.
83. Which of the following statements about the MOC is true?
- The MOC is the landing minimum descent altitude, with respect to the mean sea level.
 - The MOC is the landing minimum descent altitude, with respect to the airport elevation.
 - The MOC is the landing minimum descent altitude, with respect to the runway threshold.
 - None of the other options is correct.
84. When designing IFR procedures, the wind spirals are used for:
- computing the TAS given the IAS.
 - drawing the protection areas in turns (*).
 - estimating the bank angle in turns (*).
 - The answers marked with (*) are correct.
85. Which parameters are needed for obtaining the TAS from the IAS?
- Altitude.
 - Temperature.
 - Altitude and temperature.
 - Altitude, temperature and wind speed.
86. The minimum distance between two RNAV waypoints in an approach procedure, when a turn is executed in one (or both) waypoint(s)...
- shall be always greater than 5 NM for category A and B aircraft.
 - shall take into account the minimum stabilization distances in case a turn is executed in one (or both) waypoint(s).
 - does not depend on the waypoint type (*fly-by* or *fly-over*).
 - all the answers are correct.
87. Given the figure 1(c), what would be the OCA/H assuming a non-precision approach procedure, with no significant obstacles in the missed approach segment, a MOC of 250 ft for the final approach segment, a runway threshold elevation of 300 ft and an elevation of 500 ft for the most significant obstacle (as depicted in the figure)?
- OCA=750ft and OCH=450ft.
 - OCA=1050ft and OCH=750ft.
 - OCA=1050ft and OCH=250ft.
 - OCA=750ft and OCH=250ft.
88. Given the figure 1(d), which is the minimum flight altitude between the two waypoints assuming a MOC of 1000 ft, a runway threshold elevation of 500 ft and an elevation of 3000 ft of the most significant obstacle (as depicted in the figure)?
- 3000 ft
 - 3500 ft
 - 4000 ft
 - 4500 ft
89. When computing the protection areas of a turn (during the design of an instrumental approach procedure) how are the uncertainties of the **positioning system** taken into account?
- By considering the XTT and ATT values when computing the earliest and latest points of the turn.
 - By considering the pilot reaction time when computing the earliest and latest points of the turn.
 - By considering the RNAV stabilisation distances when computing the earliest and latest points of the turn.
 - All the answers are correct.
90. Regarding the figure 1(a), the Delta aircraft is:
- at FL250 and descending, cleared to FL160 and with a planned exit level at FL190.
 - at FL250 and descending, cleared to FL190 and with a planned exit level at FL160.
 - at FL190 and descending, cleared to FL250 and with a planned exit level at FL160.
 - at FL190 and descending, cleared to FL160 and with a planned exit level at FL250.
91. Regarding the figure 1(a), what does the tip of the black line appearing next to each aircraft symbol indicate?
- The estimated position of the aircraft, after a given period of time, based on the current aircraft heading and speed.
 - The estimated position of the aircraft, after a given period of time, based on the filed flight plan.
 - The minimum separation distance between two aircraft.
 - The black line gives a visual information to the controller regarding the vertical speed of the aircraft.
92. Regarding the figure 1(a), the heading of the Delta aircraft is:
- approximately 0
 - approximately 45
 - approximately 90
 - approximately 130
93. Consider figure 1(b), where the aircraft label is displayed in **blue** colour and all the airspace shown in the picture belongs to our sector. If we assume we are controlling an **en-route sector of Barcelona UIR**, then we can say that...
- AEA979D is not yet in our sector but will enter in few minutes from below.
 - AEA979D is not yet in our sector but will enter in few minutes from above.
 - AEA979D is in our sector and climbing to FL260.
 - AEA979D is in our sector and climbing to FL320.

94. Consider figure 1(b), where the aircraft label is displayed in **blue** colour and all the airspace shown in the picture belongs to our sector. If we assume we are controlling an **en-route** sector of **Barcelona UIR**, then what does FL260 in the aircraft label means?
- The planned entry flight level to our sector.
 - The exit flight level of our sector.
 - The last cleared flight level.
 - The desired cruise altitude of the aircraft.
95. Which of the following institutions is NOT an aircraft operator?
- Airbus.
 - Lufthansa.
 - Ryanair.
 - Grup Airmed.
96. Which of the following institutions is NOT an air navigation service provider (ANSP)?
- ENAIER.
 - NATS.
 - ENAV.
 - EASA.
97. When the intruding aircraft is equipped with a transponder without altitude reporting capability, the TCAS (Traffic Collision Avoidance System) issues a:
- traffic advisory and vertical resolution advisory.
 - traffic advisory only.
 - traffic advisory and horizontal resolution advisory.
 - traffic advisory, vertical and horizontal resolution advisory.
98. Concerning Automated Warning Systems, the Minimum Saftey Altitude Warning is:
- intended to warn the ATCO about increased risk of controlled flight into terrain accidents.
 - intended to avoid terrain collision warning the flight crew.
 - based on info provided in the SSR Mode A.
 - based on Flight Data Processing System (FPDS) info.
99. The TCAS 1 (Traffic Collision Avoidance System 1) provides:
- traffic advisories.
 - horizontal resolution (RA: Resolution Advisory)
 - Vertical resolution (RA: Resolution Advisory)
 - Ground proximity warning
100. The TCAS II (Traffic Collision Avoidance System II) uses for its operation:
- both the replies from the transponders of other aircraft and the ground based radar echoes.
 - the echoes of collision avoidance radar system especially installed on board.
 - the echoes from the ground air traffic control radar system.
 - the replies from the transponders of other aircraft.

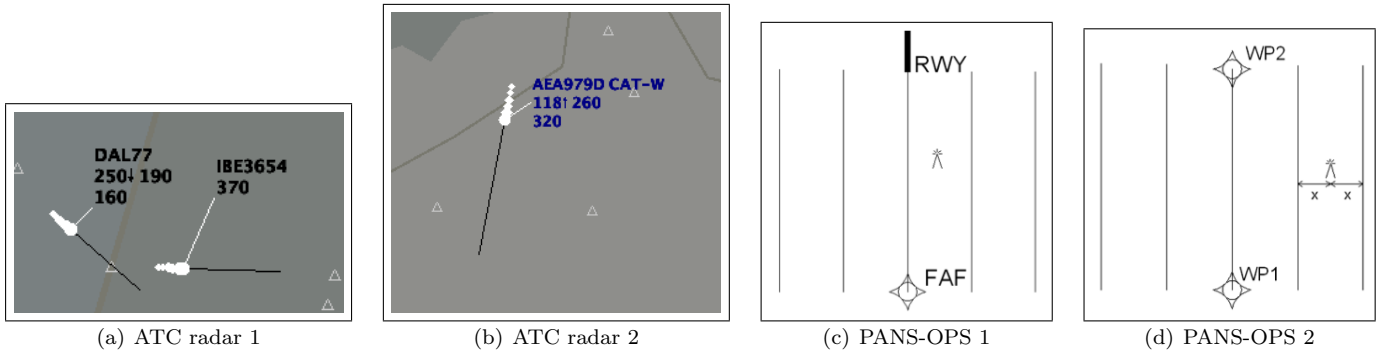


Figure 1: ATC Radar screenshots and PANS-OPS diagrams

Table 1

Flight	ETO	Flight	ETO
RYR66T	10:01	AZA333	10:24
BAW123	10:06	IBE77X	10:40
DAL077	10:07	ICC002	11:02
AFR022	10:11	SIA069	11:05

ITA FINAL EXAM QP2016
RESPOSTES CORRECTES – PERMUTACIO A

Pregunta 1 -- Correcta a	Pregunta 51 -- Correcta d
Pregunta 2 -- Correcta c	Pregunta 52 -- Correcta a
Pregunta 3 -- Correcta d	Pregunta 53 -- Correcta c
Pregunta 4 -- Correcta b	Pregunta 54 -- Correcta a
Pregunta 5 -- Correcta b	Pregunta 55 -- Correcta a
Pregunta 6 -- Correcta a	Pregunta 56 -- Correcta b
Pregunta 7 -- Correcta b	Pregunta 57 -- Correcta d
Pregunta 8 -- Correcta d	Pregunta 58 -- Correcta a
Pregunta 9 -- Correcta a	Pregunta 59 -- Correcta b
Pregunta 10 -- Correcta a	Pregunta 60 -- Correcta c
Pregunta 11 -- Correcta a	Pregunta 61 -- Correcta b
Pregunta 12 -- Correcta b	Pregunta 62 -- Correcta b
Pregunta 13 -- Correcta b	Pregunta 63 -- Correcta d
Pregunta 14 -- Correcta d	Pregunta 64 -- Correcta b
Pregunta 15 -- Correcta c	Pregunta 65 -- Correcta d
Pregunta 16 -- Correcta d	Pregunta 66 -- Correcta d
Pregunta 17 -- Correcta b	Pregunta 67 -- Correcta a
Pregunta 18 -- Correcta b	Pregunta 68 -- Correcta d
Pregunta 19 -- Correcta a	Pregunta 69 -- Correcta c
Pregunta 20 -- Correcta c	Pregunta 70 -- Correcta d
Pregunta 21 -- Correcta c	Pregunta 71 -- Correcta b
Pregunta 22 -- Correcta c	Pregunta 72 -- Correcta d
Pregunta 23 -- Correcta d	Pregunta 73 -- Correcta d
Pregunta 24 -- Correcta a	Pregunta 74 -- Correcta d
Pregunta 25 -- Correcta d	Pregunta 75 -- Correcta a
Pregunta 26 -- Correcta a	Pregunta 76 -- Correcta d
Pregunta 27 -- Correcta c	Pregunta 77 -- Correcta b
Pregunta 28 -- Correcta a	Pregunta 78 -- Correcta d
Pregunta 29 -- Correcta a	Pregunta 79 -- Correcta d
Pregunta 30 -- Correcta c	Pregunta 80 -- Correcta a
Pregunta 31 -- Correcta c	Pregunta 81 -- Correcta c
Pregunta 32 -- Correcta d	Pregunta 82 -- Correcta a
Pregunta 33 -- Correcta d	Pregunta 83 -- Correcta d
Pregunta 34 -- Correcta c	Pregunta 84 -- Correcta b
Pregunta 35 -- Correcta a	Pregunta 85 -- Correcta c
Pregunta 36 -- Correcta d	Pregunta 86 -- Correcta b
Pregunta 37 -- Correcta a	Pregunta 87 -- Correcta a
Pregunta 38 -- Correcta d	Pregunta 88 -- Correcta b
Pregunta 39 -- Correcta c	Pregunta 89 -- Correcta a
Pregunta 40 -- Correcta b	Pregunta 90 -- Correcta b
Pregunta 41 -- Correcta a	Pregunta 91 -- Correcta a
Pregunta 42 -- Correcta a	Pregunta 92 -- Correcta d
Pregunta 43 -- Correcta c	Pregunta 93 -- Correcta a
Pregunta 44 -- Correcta a	Pregunta 94 -- Correcta c
Pregunta 45 -- Correcta c	Pregunta 95 -- Correcta a
Pregunta 46 -- Correcta d	Pregunta 96 -- Correcta d
Pregunta 47 -- ANULADA	Pregunta 97 -- Correcta b
Pregunta 48 -- Correcta c	Pregunta 98 -- Correcta b
Pregunta 49 -- Correcta c	Pregunta 99 -- Correcta a
Pregunta 50 -- Correcta a	Pregunta 100 -- Correcta d