INFRAESTRUCTURES DEL TRANSPORT AERI (ITA)
Final Exam - Fall semester 2017

Correct answer: +1 point – Incorrect answer: -1/3 points – Blank answer: 0 points
For each question **only one answer** is correct

Permutacio (CODE) 1 - Group 00

1. Airspace Management strongly depends on:

   (a) the Communications, Navigation and Surveillance (CNS) infrastructure available.
   (b) the Aeronautical Information Services (AIS) available.
   (c) the Air Traffic Flow Management (ATFM).
   (d) the Air Traffic Control (ATC).

2. A VFR aircraft is cruising with heading 130^o. According to the ICAO flight level allocation scheme (*odd-even* rule), a possible flight level for this flight could be:

   (a) FL130
   (b) FL135
   (c) FL140
   (d) VFR flights do not fly using flight levels, but using Altitudes.

3. An IFR aircraft is cruising with heading 130^o. According to the ICAO flight level allocation scheme (*odd-even* rule), a possible flight level for this flight could be:

   (a) FL130
   (b) FL135
   (c) FL140
   (d) IFR flights do not fly using flight levels, but using Altitudes.

4. In a descent, at which moment the pilot sets the altimeter to the QNH setting?

   (a) At FL100.
   (b) At the crossover altitude.
   (c) At the transition altitude.
   (d) At the transition level.

5. In a climb, at which moment the pilot sets the altimeter to the standard setting?

   (a) At FL100.
   (b) At the crossover altitude.
   (c) At the transition altitude.
   (d) At the transition level.

6. Why standard instrumental departures contain typically **maximum altitude** restrictions for certain segments?

   (a) To allow visual self-separation procedures.
   (b) To allow continuous climb operations (CCO).
   (c) To strategically de-conflict them with arrivals crossing from below.
   (d) To strategically de-conflict them with arrivals crossing from above.

7. Which of the following volume is, in general, the biggest one?

   (a) TMA.
   (b) CTR.
   (c) ATC.
   (d) ATZ.

8. Regarding ATS sector sizes, which is the correct statement?

   (a) Bigger sectors usually deal with less traffic.
   (b) Smaller sectors are more often used in TMA.
   (c) Sector size depends on traffic complexity.
   (d) All the other answers are correct.

9. Which of the following statements does NOT apply to the FUA concept?

   (a) Airspace segregations are not longer permanent and they are based on real use during conveniently chosen time periods.
   (b) Airspace should no longer be designated either military or civil.
   (c) Airspace should be considered as one continuum and used flexibly on a day-to-day basis.
   (d) All the other options apply to the FUA concept.

10. Regarding the flexible use of airspace (FUA) concept, the third level (tactical level) deals with:

    (a) The definition of the sectorisation and capacity of the military airways.
    (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 national airspace policy and predetermined airspace structures.

11. Which of the following initiatives is **NOT** an ATFM initiative?

    (a) Call for release.
    (b) Level capping.
    (c) Miles in trail.
    (d) All of them are ATFM initiatives.

12. Which of the following ATFM initiatives is the most widely used in Europe and in the U.S.?

    (a) Ground stop.
    (b) Call for release.
    (c) Air holding.
    (d) Re-routering.

13. 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.

14. In Europe, when a CTOT (Calculated take-off time) is given, the aircraft should take-off within the period:

    (a) [CTOT, CTOT +10 min]
    (b) [CTOT - 5min, CTOT +5 min]
    (c) [CTOT - 5min, CTOT +10 min]
    (d) [CTOT - 10min, CTOT +10 min]

15. 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) CTOT = EOBT + COBT
    (b) CTOT = EOBT + ground delay
    (c) CTOT = EOBT + ground delay + Taxi Time
    (d) CTOT = EOBT + ground delay + Taxi Time + Trip Time

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 AZA164 according to the computed assisted slot allocation (CASA) algorithm?

Table 1			
Flight	**ETO**	**Flight**	**ETO**
RYR23A	10:01	IBE43R	10:24
DAL982	10:06	ICC956	10:40
AFR123	10:07	SIA543	11:02
AZA164	10:11	BER122	11:05

(a) No delay.
(b) 1 minute.
(c) 4 minutes.
(d) 19 minutes.

17. Taking into account the previous question, what is the ATFM delay that would be assigned to BER122 according to the computed assisted slot allocation (CASA) algorithm?

(a) No delay.
(b) 1 minute.
(c) 5 minutes.
(d) 10 minutes.

18. Taking into account the previous question, w what is the ATFM delay that would be assigned to ICC956 according to the computed assisted slot allocation (CASA) algorithm?

(a) No delay.
(b) 1 minute.
(c) 5 minutes.
(d) 10 minutes.

19. Taking into account the previous question, 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) SIA543
(c) AZA164
(d) IBE43R

20. Taking into account the previous question, what is the ATFM delay that would be assigned to SIA543 according to the computed assisted slot allocation (CASA) algorithm?

(a) No delay.
(b) 2 minutes.
(c) -2 minutes.
(d) 1h and 2 minutes.

21. Mark the **wrong** statement:

(a) Alert Services are provided when Air Traffic Control is provided.
(b) Flight Information Services are provided when Air Traffic Control is provided.
(c) Alert Services are provided when Flight Information Services are provided.
(d) Air Traffic Control is provided when Flight Information Services are provided.

22. Which of the following is a clear objective of the air traffic control (ATC) service?

(a) To expedite and maintain an orderly flow if 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.

23. What is the international radiotelephony distress signal for aviation?

(a) The word *MayDay*.
(b) The word *MayDay* repeated three times.
(c) The word *Pan-Pan*.
(d) The word *Pan-Pan* repeated three times.

24. A VFR flight is flying inside an airspace of class C. The air traffic controller is responsible to separate it from:

(a) all other IFR flights.
(b) all other VFR flights.
(c) all other VFR and IFR flights.
(d) the controller has no separation responsibility with VFR flights in airspace class C.

25. A VFR flight is flying inside an airspace of class D. The air traffic controller is responsible to separate it from:

(a) all other IFR flights.
(b) all other VFR flights.
(c) all other VFR and IFR flights.
(d) the controller has no separation responsibility with VFR flights in airspace class D.

26. In which situation, the visual concact with aircraft is the main data gathering source for an air traffic controller?

(a) for the IFR clearance delivery dependency.
(b) for the ground movement control dependency.
(c) for the approach control dependency
(d) Nowadays, visual contact with aircraft is not used anymore as source of information by ATC.

27. When procedural control is given to an approach procedure...:

(a) the air traffic controller can give vectors to the aircraft to ensure separation.
(b) the air traffic controller can clear only one aircraft per approach.
(c) the pilots ensure separation by their own means (visual, ASAS, etc.).
(d) the pilots must not consider any ACAS advisory.

28. North atlantic oceanic airspace is...

(a) A free-route area.
(b) A free-flight area.
(c) A free-route area with an organised track system (called north Atlantic tracks).
(d) An area with only RNAV airways.

29. Who is the responsible to issue air traffic control clearances?

(a) The strategic controller
(b) The tactical controller.
(c) The planner controller.
(d) The ATC supervisor.

30. In the frame of ATS, who is responsible for executing transfers of aircraft between two ATC sectors?

(a) The tactical controller.
(b) The supervisor controller.
(c) The planner controller.
(d) None of the other answers is correct.

31. Which of the following sentences is correct, regarding the Letters of Agreement (LoA) in the context of ATS?

(a) The air traffic controllers must have a comprehensive knowledge of the LoA affecting their sectors.
(b) The aircraft operators must have a comprehensive knowledge of the LoA affecting their flights.
(c) The LoA are published in the AIP.
(d) All answers are correct.

32. Who is the responsible to coordinate the transfer of an aircraft which is not going to respect the Letter of Agreement (LoA) between two ATC sectors?

(a) The strategic controller

(b) The tactical controller.

(c) The executer controller.

(d) The ATC supervisor.

33. In general, in which of the following ATC dependencies radar vectoring (heading instructions) is mostly provided?

(a) In area control (en-route control).

(b) In aerodrome control Tower (TWR).

(c) In ground control (GND).

(d) In approach control (APP).

34. Which is NOT correct, according to the ICAO radio-telephony spelling alphabet?

(a) G: Golf

(b) H: Hotel

(c) X: X-trem

(d) W: Whiskey

35. Which is the radio-telephony callsign of a flight labelled as $AZA69$ in an ATC radar screen?

(a) Alpha Zulu Alpha Six Niner

(b) Air France Six Niner

(c) Alitalia Six Niner

(d) Europa Six Niner

36. Which of the following statements is NOT a new concept/system regarding the **communications** in the future CNS systems for ATM?

(a) Reduced VHF frequency spacing (8.33 kHz).

(b) Global Navigation Satellite System (GNSS).

(c) Aircraft Communications Addressing and Reporting System (ACARS).

(d) Controller-Pilot DataLink Communications (CPDLC).

37. Imagine that a significant amount of aircraft in a given airspace is operating with CPDL. Then, the ATC workload related with the communications may presumably:

(a) Increase.

(b) Remain approximately the same.

(c) Decrease.

(d) None of the other options is correct.

38. The reduction of the VHF channel spacing is crucial in the European civil aviation...

(a) to enhance the aircraft navigation accuracy.

(b) to minimise the errors in radio telephone (RTF) communications.

(c) to create a new set of pilot-controller communication messages.

(d) because more frequency channels could be needed to increase the capacity of the overall system.

39. Which physical transmission layer is NOT used by the ACARS?

(a) Very high frequency (VHF) subnetwork.

(b) Satellite communication.

(c) CPDLC subnetwork.

(d) High Frequency (HF) subnetwork.

40. Which of the following are key technologies of the global positioning system (GPS) development?

(a) Stable platforms and communications

(b) Stable platforms and stable/precise clocks.

(c) Stable/precise clocks and communications.

(d) None of the other answers are correct.

41. What is the main consequence of not having atomic clocks in GPS receivers?

(a) We need at least a fourth satellite to calculate the position of the receiver.

(b) We need at least a fifth satellite to calculate the position of the receiver.

(c) All GPS receivers, in fact, are equipped with atomic clocks.

(d) None of the other answers is correct.

42. The augmentation navigational information of the SBAS is based on:

(a) a communication satellite, situated in a low earth orbit (LEO).

(b) a dedicated VHF channel.

(c) a communication satellite, situated in a geostationary earth orbit (GEO).

(d) a navigation satellite, situated in a low earth orbit (LEO).

43. Which of the following statements is correct?

(a) The accuracy of an estimated or measured position of an aircraft at a given time is the degree of conformance of that position with the true position, velocity and/or time of the aircraft.

(b) The availability of a navigation system is the percentage of time that the services of the system are usable by the navigator.

(c) The continuity of a system is the ability of the total system (comprising all elements necessary to maintain aircraft position within the defined area) to perform its function without interruption during the intended operation.

(d) All answers are correct.

44. Regarding the primary surveillance radar (PSR), which of the following statements is correct?

(a) All of them are correct.

(b) PSR provides azimuth and range.

(c) PSR is independent of the aircraft equipment.

(d) PSR uses "brute force technology": high power and low performance.

45. Regarding the Instrumental Approach Chart (IAC) **Amarillo Intl. (AMA) VOR/DME RWY 22** annexed to this exam, the minimum descent altitude for an aircraft of **Category C** in a straight-in approach is

(a) 4080 ft.

(b) 3960 ft

(c) the approach depicted in this chart cannot be executed straight-in and therefore there is no minimum descent altitude for this case.

(d) None of the other answers is correct.

46. Regarding the same chart, the decision altitude for an aircraft of Category C in a straight-in approach is

(a) 4080 ft.

(b) 3960 ft

(c) the approach depicted in this chart cannot be executed straight-in and therefore there is no minimum descent altitude for this case.

(d) None of the other answers is correct.

47. Regarding the same chart, the landing minima for an aircraft of **Category C** in approach to **runway 31** (yes!, runway 31) are:

(a) 4080 ft altitude and 1.5 statute miles of visibility.

(b) 4080 ft altitude and 1 statute mile of visibility.

(c) 3960 ft altitude and 1.5 statute miles of visibility.

(d) 3960 ft altitude and 1 statute miles of visibility.

48. Regarding the same chart, an aircraft starting an approach at the DEXBE IAF will execute, as initial approach segment:

(a) a 45/180 reversal procedure.

(b) a base turn reversal procedure.

(c) a racetrack procedure.

(d) a direct approach following the VOR PNH.

49. Regarding the same chart, an aircraft starting an approach at the JIKPY IAF will execute, as initial approach segment:

(a) a 45/180 reversal procedure folowed by a DME arc.
(b) a DME arc.
(c) a racetrack procedure folowed by a DME arc.
(d) a direct approach following Radial 176 of PHN VOR.

50. Regarding the same chart, the final approach segment is

(a) a NDB course.
(b) a dead-reckoning leg.
(c) a VOR radial.
(d) there is no final segment in this procedure.

51. Regarding the same chart...

(a) it is a non precision and straight-in approach.
(b) it is a non precision and circling to approach.
(c) it is a precision and straight-in approach.
(d) it is a precision and circling to approach.

52. Regarding the same chart, the holding fix of the holding procedure defined at the end of the missed approach procedure is defined by:

(a) the intersection of two NDB courses.
(b) the intersection of two VOR radials.
(c) the intersection of a VOR radial and a DME arc.
(d) the PNH VOR/DME facility.

53. Regarding the same chart, imagine an aircraft established in the final approach segment for runway 22 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:

(a) approximately 055
(b) approximately 235
(c) greater than 235
(d) smaller than 235

54. Regarding the same chart, imagine an aircraft established in the final approach segment for runway 22 and in present strong wind conditions **from the south**. If we assume that the pilot is correctly using the final approach radionavigation guidance, the **track** of the aircraft will be:

(a) approximately 055
(b) approximately 235
(c) greater than 235
(d) smaller than 235

55. Regarding the same chart, how is the MAPt defined?

(a) in this procedure, there is no MAPt.
(b) the MAPt is defined over the PNH VOR/DME facility at the MDA.
(c) the MAPt is defined at the intersection 235^o/0.5NM of PNH VOR/DME and at the MDA.
(d) the MAPt is defined by a timing of 0.5 minutes after overflying the FAF and at the MDA.

56. Regarding the same chart, how is the FAF defined?

(a) in this procedure, there is no FAF.
(b) the FAF is defined over PNH VOR/DME.
(c) the FAF is defined at the intersection 235^o/0.5NM of PNH VOR/DME.
(d) the FAF is at DEXBE.

57. Regarding the same chart, the area P-47 that appears North of the IAF DEXBE is...

(a) a Dangerous area.
(b) a Parachuting area.
(c) a Prohibited area.
(d) a Restricted area.

58. Regarding the Instrumental Approach Chart (IAC) **Anchorage ILS RWY 7R ILS**, annexed to this exam, the decision height published is:

(a) there is no decision height for this procedure.
(b) 130 ft.
(c) 600 ft.
(d) 700 ft.

59. Regarding the Instrumental Approach Chart (IAC) **Anchorage ILS RWY 7R ILS**, annexed to this exam, the minimum runway visual range for an ILS CAT-IIIB approach is:

(a) there is no minimum runway visual range for this procedure.
(b) 130 ft.
(c) 600 ft.
(d) 700 ft.

60. Regarding the Instrumental Approach Chart (IAC) **Anchorage ILS RWY 7R ILS**, annexed to this exam, imagine an aircraft is instructed to hold at the end of the missed approach procedure. The aircraft will enter the hold with...

(a) a racetrack entry procedure.
(b) a direct entry procedure.
(c) an offset or a parallel entry procedure.
(d) the entry procedure in a holding after a missed approach is free and the pilot can chose the best way to execute it.

61. Regarding the Instrumental Approach Chart (IAC) **Anchorage ILS RWY 7R ILS**, annexed to this exam, the missed approach segement is composed by three legs, which are:

(a) a ILS course followed by a VOR radial followed by another VOR radial.
(b) a VOR radial followed by a dead reckoning leg followed by another VOR radial.
(c) a dead reckoning leg followed by a VOR radial followed by another VOR radial.
(d) a dead reckoning leg followed by another dead reckoning leg followed by a VOR radial.

62. Regarding the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam, the aircraft operator will publish for their crew a...

(a) decision altitude.
(b) minimum descent altitude.
(c) obstacle clearance altitude.
(d) ILS minimum altitude.

63. 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) a dead-reckoning segment that depends on the aircraft speed.
(b) a localizer course.
(c) a ILS course.
(d) a tear-drop procedure.

64. Regarding the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam, the intermediate approach segment is...

(a) a VOR radial.
(b) a NDB course.
(c) an ILS glide path segment.
(d) there is no intermediate segment in this procedure.

65. Regarding the Instrumental Approach Chart (IAC) **Leon ILS RWY23**, annexed to this exam the missed approach segment is...

(a) mainly composed by two VOR radials.
(b) mainly composed by a VOR radial and a DME arc.

(c) mainly composed by a dead-reckoning leg and a VOR radial.

(d) a tear-drop procedure

66. Consider the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam. How is the MAPt defined?

(a) in this procedure, there is no MAPt.

(b) the MAPt is defined over the EON VOR/DME facility at the MDA.

(c) the MAPt is defined at the intersection 228^o/6.1NM of EON VOR/DME and at the MDA.

(d) the MAPt is defined over the runway threshold and at the DA.

67. Consider the Instrumental Approach Chart (IAC) **Leon ILS RWY23** annexed to this exam. What is the DA for an aircraft of category C executing an approach to **runway 23**?

(a) in this chart, there is no DA published.

(b) None of the other answers is correct.

(c) 4000 ft.

(d) 1000 ft.

68. An APV is a:

(a) a precision approach with vertical guidance.

(b) an approach with vertical guidance but with navigation performances worse than precision approaches.

(c) an approach procedure where only vertical guidance is provided (but not lateral).

(d) an approach procedure where only lateral guidance is provided (but not vertical).

69. Which of the following statements is correct?

(a) APV and PA provide vertical and lateral guidance, while NPA provide only lateral guidance.

(b) NPA and PA provide vertical and lateral guidance, while APV provide only lateral guidance.

(c) PA provide vertical and lateral guidance, NPA provide only lateral guidance and APV are non-guided (visual) approaches.

(d) APV provide vertical and lateral guidance, PA provide only lateral guidance and NPA are non-guided (visual) approaches.

70. Which of the following statements is correct?

(a) A VOR approach is always a NPA (non precision approach) procedure (*).

(b) A NPA (non precision approach) is always a VOR procedure (*).

(c) The answers marked with (*) are correct.

(d) None of the other answers is correct.

71. In a NDB 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.

72. 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.

73. In which of the following procedures the final approach segment will start at the FAP?

(a) In an ILS approach.

(b) In a VOR approach.

(c) In a Localizer approach.

(d) In any approach that the intermediate segment ends at the *end of turn*.

74. The IF can be defined...

(a) above a radionavigation facility.

(b) at the intersection between two VOR radials.

(c) at a given time after overflying the IAF.

(d) all answers are correct.

75. A racetrack procedure...

(a) is a type of initial approach segment.

(b) is a type of holding pattern.

(c) could be, for instance, a 45/180 procedure turn.

(d) is when an aircraft uses an active runway to taxi in the opposite direction from which it will take off or land.

76. 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.

77. The angle, with respect to the North, of the line formed by the actual position of the aicraft and a given destination waypoint or fix is called...

(a) track.

(b) heading.

(c) course.

(d) bearing.

78. If the visibility is good enough for visual flight, then...

(a) we are in IMC and must fly according to IFR.

(b) we are in VMC and must fly according to IFR.

(c) we are in VMC and must fly according to VFR.

(d) we are in VMC and can fly according to VFR or IFR.

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. In a conventional IFR holding, which leg is typically a dead reckoning leg?

(a) The outbound leg.

(b) The inbound leg.

(c) The inbound and the outbound legs.

(d) Only the two turns are executed in dead reckoning.

81. Who is the responsible to publish a contingency instrumental departure for a given runway?

(a) the ANSP.

(b) the aircraft operator.

(c) the aircraft manufacturer.

(d) The national safety agency.

82. Which of the following sequence is correct for a visual approach procedure following a standard airfield traffic pattern?

(a) base, upwind and final.

(b) base, downwind and final.

(c) upwind, base and final.

(d) downwind, base and final.

83. According to the small Figure (b) at the end of this test, depicting an airfield traffic pattern...

(a) Turns in the pattern are always to the right.

(b) Turns in the pattern are always to the left.

(c) Turns in the pattern are to the right for runway 09 and to the left for runway 27.

(d) Turns in the pattern are to the left for runway 09 and to the right for runway 27.

84. A small aircraft, flying in VFR wants to fly from *Peronne (LFAG)* to *Soissons (LFJS)* following a straight line. Check the VFR chart provided in annex to this exam. You will find these two aerodromes at the upper right part of the chart. Which of the following answers is correct?

(a) This flight can only be done in IFR.

(b) This flight can allways be done at any altitude, providing the aircraft is equipped with a VHF radio and receives the proper clearances.

(c) This flight could be done with no radio if the altitude is kept below FL55.

(d) This flight could be done with no radio if the altitude is kept below 3500 ft.

85. Consider the VFR chart of the Paris area provided in annex to this exam. The airspace class E over the aerodrome *La Ferte Gaucher (LFFG)* (lower right part of the chart)...

(a) goes from ground level to 3500 ft.

(b) goes from 3500 ft to FL45.

(c) goes from FL45 to the upper airspace.

(d) goes from FL55 to the upper airspace.

86. Consider the VFR chart of the Paris area provided in annex to this exam. The airspace class over the town of *Nanteuil le Haudouin* (North-East of Paris Charles de Gaulle airport) at 3000 ft is:

(a) Class A.

(b) Class D.

(c) Class E.

(d) Class G.

87. Regarding the figure (a), the Delta aircraft is:

(a) at FL250 and descending, cleared to FL160 and with a planned exit level at FL190.

(b) at FL250 and descending, cleared to FL190 and with a planned exit level at FL160.

(c) at FL190 and descending, cleared to FL250 and with a planned exit level at FL160.

(d) at FL190 and descending, cleared to FL160 and with a planned exit level at FL250.

88. Regarding the figure (a), what does the tip of the black line appearing next to each aircraft symbol indicate?

(a) The estimated position of the aircraft, after a given period of time, based on the current aircraft heading and speed.

(b) The estimated position of the aircraft, after a given period of time, based on the filed flight plan.

(c) The minimum separation distance between two aircraft.

(d) The black line gives a visual information to the controller regarding the vertical speed of the aircraft.

89. The goal of the Air Navigation Services (ANS) is to improve one or more of the following indicators at the same time none of the remaining ones are degraded:

(a) Safety, security and predictability.

(b) Safety and traffic.

(c) Safety and security.

(d) Safety, capacity and efficiency.

90. What separation procedure is mainly used in oceanic airspace?

(a) Radar separation.

(b) Self separation.

(c) Procedural separation.

(d) TCAS-only separation.

91. Which is the main purpose of radar vectoring?

(a) To give fast and simple separation instructions to aircraft crew.

(b) To increase airport capacity when sequencing traffic into final approach.

(c) To increase airspace capacity when merging arrival traffic flows.

(d) All answers are correct.

92. Which is the principal inconvenience of radar vectoring?

(a) It can only be used with procedural control.

(b) It can only be used for area control (en-route).

(c) The pilot loses the situational awareness of the aircraft trajectory in the near future (for example, the remaining distance to the runway threshold).

(d) It increases significantly the workload of the pilot.

93. When the intruding aircraft is equipped with a transponder without altitude reporting capability, the TCAS (Traffic Collision Avoidance System) issues a:

(a) traffic advisory and vertical resolution advisory.

(b) traffic advisory only.

(c) traffic advisory and horizontal resolution advisory.

(d) traffic advisory, vertical and horizontal resolution advisory.

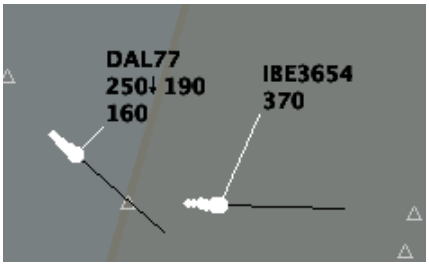
94. Which kind of collision avoidance manoeuvres can a TCAS II TA provide?

(a) vertical-only manoeuvres.

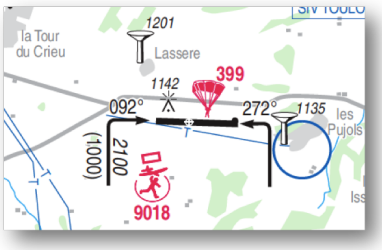
(b) horizontal-only manoeuvres.

(c) both horizontal and vertical manoeuvres.

(d) TA does not provide any kind of collision avoidance manoeuvre.



(a)



(b)

INFRAESTRUCTURES DEL TRANSPORT AERI (ITA)
Final Exam - Fall semester 2017

Correct answers

Pregunta	PERM. 1	PERM. 2	PERM. 3	PERM. 4
P 01	a	c	a	c
P 02	b	b	d	a
P 03	a	c	b	b
P 04	d	d	d	d
P 05	c	b	c	c
P 06	d	d	d	a
P 07	a	b	c	c
P 08	d	d	c	d
P 09	d	c	a	c
P 10	c	d	a	b
P 11	d	c	c	b
P 12	d	b	a	c
P 13	a	a	a	c
P 14	c	d	d	c
P 15	c	d	c	c
P 16	d	d	c	a
P 17	c	b	b	a
P 18	d	b	d	d
P 19	b	b	d	b
P 20	a	b	d	d
P 21	d	c	c	c
P 22	a	a	a	b
P 23	b	a	d	d
P 24	a	d	a	d
P 25	d	a	a	a
P 26	b	d	c	c
P 27	b	c	d	d
P 28	c	b	b	c
P 29	b	c	c	c
P 30	a	c	a	d
P 31	a	b	d	b
P 32	a	d	b	a
P 33	d	c	c	a
P 34	c	c	a	a
P 35	c	a	b	c
P 36	b	c	a	a
P 37	c	b	a	c
P 38	d	d	b	d
P 39	c	b	b	a
P 40	b	a	c	c
P 41	a	b	b	b
P 42	c	d	a	a
P 43	d	c	d	a
P 44	a	a	c	b
P 45	b	c	a	b
P 46	d	c	a	c
P 47	a	a	a	d
P 48	a	c	b	b

P 49	b	d	d	b
P 50	c	b	b	d
P 51	a	d	a	d
P 52	c	c	b	d
P 53	d	a	d	d
P 54	b	d	a	c
P 55	c	d	c	b
P 56	d	a	c	d
P 57	c	b	c	d
P 58	a	b	c	c
P 59	c	c	b	a
P 60	b	b	b	d
P 61	d	c	a	b
P 62	a	c	d	c
P 63	d	d	b	a
P 64	a	c	a	a
P 65	c	c	a	d
P 66	a	c	a	d
P 67	a	c	b	d
P 68	b	d	a	d
P 69	a	a	a	a
P 70	a	d	c	a
P 71	d	c	c	a
P 72	d	a	a	b
P 73	a	d	d	b
P 74	d	b	d	a
P 75	a	d	c	d
P 76	a	c	b	b
P 77	d	d	b	a
P 78	d	d	b	c
P 79	d	c	a	a
P 80	a	d	c	c
P 81	b	b	c	b
P 82	d	a	b	b
P 83	c	a	a	d
P 84	c	c	a	d
P 85	b	b	b	b
P 86	a	b	c	b
P 87	b	b	b	b
P 88	a	c	a	a
P 89	d	d	b	a
P 90	c	d	b	c
P 91	d	d	d	c
P 92	c	c	b	a
P 93	b	b	a	d
P 94	d	d	b	c