

1. ATS includes ( )

A. ATCS,APM&AS B. ATCS,FIS&Aps C. ATS,ASM& ATFM D. ATCS,FIS&AS

2. If the HQFE is 300m. the barrier's elevation is 2000m, the airdrome's elevation is 1900m, the airplane exceed the barrier ( ) m

A.200 B.300 C.400 D.500

3. When the aircraft is in distress, the squawk should be set to ( )

A:A7700 B:A7600 C:A7500 D:A2200

4. Each ATC position should equip at least ( )controllers to accomplish the task

A:1 B:2 C:3 D:4

5. There are ( )flight levels between 1800m(include) and 9200m(not include)

A:20 B:23 C:24 D:28

6. In high altitude control area, ( ) is permitted.

A:VFR B: IFR C: VFR and IFR D: none

7. When QNH is 1010.2hpa the caption set it to 1001.2Hpa, the aircraft's real altitude ( ) than indicated altitude

A, greater B, less C: greater or less D: equal

8. Any holding over navigation beacon should not exceed ( ) minutes generally

A:10 B:30 C:45 D:60

9. After getting license, controller should be tested ( ) times per year

A:1 B:2 C:3 D: half

10. The on position training could be classified as ( )

A: Facility Training, refresher training

B: Qualification Training, standard training

C: Facility Training, standard training

D. Facility Training, Proficiency Training, refresher training , Supplemental training  
Remedial training

11. Automatic record of radar data should be reserved for( ) days(normal)

A:10      B:20      C:15      D:30

12. In the field type 15, cruising level could be indicated by F,S,A,M, which means ( )

A: F-100 feet, S-10 meters, A-100 feet, M-10 meters:

B: F-10 ceters, S-100 feet, A-10 meters, M-100 feet:

C: F-10 meters, S-10 meters, A-100 feet, M-100 feet:

D: F-100 feet, S-100 feet, A-10 meters, M-10 meters.

13. Which is not the situation in distress phase?

A: distress signal been sent

B: after alerting phase 60' no contact with the aircraft

C: no landing information after the running out of the fuel

D: the flight capability been injured but don't have to take belly landing  
the aircraft could contact

14. The flights in domestic airspace are controlled and organized by( )

A: CAAC

B: Air force of the Chinese People's liberation army

C: ATM bureau OF CAAC

D: general staff of the Chinese People's liberation army

15. On VPR circle, the minimum longitudinal separation between Class B aircrafts is ( )

A:2000m      B:1500m      C:3000m      D:5000m

16. The discharge bill must be signed by ( )

A dispatcher

B: captain

C: dispatcher and captain

D: dispatcher and captain(or their deputy)

17. At the airdrome without night flight equipments and the captain is not qualified for night flight, Take off time is not ( ) minutes early than sunrise.

A:10      B:20      C:25      D:30

18. in AFIN telegram, the date should be indicated as ( ).

A: 4 numbers, former two indicate day, the latter two indicate month

B: 4 numbers, former two indicate month, the latter two indicate day

C: 6 numbers, former two indicate year, the middle two indicate month, the latter two indicate day

D: 4 numbers, former two indicate day, the latter two indicate hour.

19. Which frequency can't be applied to research( )

A:121.5MHZ    B: 243 MHZ    C: 123.45MHZ    D: 500KHZ

20. the flight in the vicinity of civil airfield which has been set TA and TL, the aircraft should take( ) as the reference for the altitude

A: QNH      B: QFE      C: real height:      D: QNE

21. Which of following RQS is right ( ).

A: (RQS-CCA1501/A3031-ZBAA0120-ZSSS:

B: (RQS-CCA1501/A3031-ZBAA )

C: (RQP-0401-CCA1501/A3031-ZBAA-ZSSS )

D: (ROS-CCA1501/A3031-ZBAA-ZSSS)

22. Which of the following phase that can adjust speed?

A: holding B: Final approach C: Flight above 8900m D: Except A B & C

23. FPL should be released at ( ).

A: 45 minutes before ETD:

B: 30 minutes before estimated off-block time:

C: 45 minutes before estimated off-block time, not earlier than 90 minutes before estimated off-block time:

D: 120 minutes before estimated off-block time, not earlier than 24 hours before estimated off-block time:

24. One aircraft flight with IFR and the other with VFR, The ATC should follow ( )

A: IFR      B: VFR      C: any one      D: both

25. Controller should not take any charge( )hours after drinking any liquor or in the effect of any narcosis medication

A:4      B:6      C:8      D:10

26. When VFR are executed, ( ) are responsible for the separation between aircrafts at night

A: captains                      B: pilots                      C: both                      D: any one

27. When QNH below ( ) hpa (includes), TA should be reduced for 300m

A: 1000                      B: 1013                      C: 1024                      D: 900

28. About zero altitude, which is correct ( )

A: all aerodrome has

B: all aerodrome hasn't

C: not all aerodrome has

D: only high altitude aerodrome has

29. If B747 before B737, they should maintain radar wake interval ( ) when landing

A: 6km

B: 8km

C: 10km

D: 12km.

30. Which of the following is not the Flight information region (FIR) in China ( )

A: Hongkong

B: Beijing

C: Taipei

D: Chongqing

31. The high altitude control area is above ( ) (not include) meters

A: 3000

B: 4000

C: 6000

D: 8900

32, which of the following description of the special airspace is not right ( )

A: Prohibited airspace, Restricted airspace and Dangerous airspace are designated according to the purpose of certain department of the government;

B: Any flight should be clear of its position only by its equipment on board in case of enter the special airspace;

C: ATS units should surveillance the flight in case of the enter of special airspace;

D: the information that the ATS units should release to the aircraft about the special airspace includes: 1, name of the airspace 2, scope of the airspace: 3, active time: 4, other information.

33. Which is not grave accident ( )

A: cause death, number of dead people below 39

B: cause death, number of dead people above 39

C: aircraft missing. there are less than 39 persons on board

D: the aircraft been seriously damaged or landed in a place where could not ship out the aircraft

34. Any controller should take nurturant training and on position training, and pass the tests, get licences. Nurturant training is executed by( )

A: the foreign ATC units

B: training center of ATM bureau

C: the colleges have the qualification:

D: technical division of ATC center

35. Radar controller should not work more than( )continuous hours, a slot of ( ) minutes must be guaranteed between each two working phase

A: 2, 60

B: 2, 30

C: 1, 60

D: 1, 30

36. The responsibility of approach control office is ( )

A: Provide the control of a route

B: Provide the control of an airport field:

C: Provision of APP control service to the departing and arriving flights in the relevant TMA:

D: Provide the control of a local circuit:

37. When VFR are executed, two aircrafts light at the same altitude, intersect cross direction, they should avoid as: The aircraft which see the other A/C from the left side of the cabin should ( ) the aircraft which see the other A/C from the right side of the cabin should ( )

A: descend, climb      B: climb, climb

C: descend, descend      D: climb, descend

38. When VFR are executed, ( ) are responsible for the MSA above the obstacle:

A: captains      B: atcs      C: both.      D: any one

39. which of the following is all right about the type of flight

A. N translation, W non-scheduled, C overtime, K training.

B. L charter, Z supplementary, U business, H cargo

C. N non-scheduled, B special flight, M military

D. E-Bmilitary, M emergency, Q general light, S non-scheduled.

40. minimum safety altitude of IFR enroute, at the plain area, should be above the highest obstacle ( ) Km around the center line of the route or line ( ) meters

A. 15300    B. 25,300    C. 25,400    D. 5,300.

填空题

1. ATM includes \_\_\_\_\_.
2. The four stage of the flight service centre's operation are \_\_\_\_\_.
3. An airdrome's elevation is 600m, And its initial approach altitude is 1800m, The TA is \_\_\_\_\_, TL is \_\_\_\_\_.
4. According to navigate and drive methods, flight can be divided into \_\_\_\_\_.
5. The priority landing procedure is: Maintain altitude and Level flight to landing \_\_\_\_\_, Expedite descend to \_\_\_\_\_, then, \_\_\_\_\_, Expedite descend to IAF altitude.
6. the airdrome's protected Area uses \_\_\_\_\_, as the center, radius Km, The minimum safety altitude of IFR in airdrome is: flight over hills or mountains above the highest elevation in the protected area \_\_\_\_\_ m, Flight over plain above \_\_\_\_\_ m.
7. The classification of flight accidents includes \_\_\_\_\_.
8. The principle of ATFM are \_\_\_\_\_.
9. Generally, ATIS should be updated once for each \_\_\_\_\_ minutes.
10. The marks for the identification of aircraft includes \_\_\_\_\_.
11. airdrome elevation is 1200m, obstacle elevation 1899m, an aircraft report its height is 921m, The real height from the aircraft to the obstacle is \_\_\_\_\_ m



12. Landing clearance has been issued, \_\_\_\_\_ minutes after the estimated landing time. Without any contact with the plane, the controller should take it as an alert phase.

三. Answer the following questions (12p)

1. Describe the cruising flight level arrangement in our country nowadays? (5p)

2. One day, an airport  $QFE=963\text{hpa}$ ,  $QNH=1000\text{hpa}$ ,  $QFE=2400\text{m}$ ; B-3626 reported:  $HQNH=2700\text{m}$ ; B-3480 reported:  $2800\text{m}$ . On standard. What is the vertical separation between them? draw the vertical location of the aircrafts. ( $QNE=1013\text{hpa}$ ,  $1\text{hpa}=8\text{m}$ ) (7p)

#### 四.AFTN Applications (18p)

CNS3552, A320M, from Shenyang to Chengdu, date 8 July. 2013, EOBT:1440, Beijing, time, ETA: 1810, instrument flight, SSR code A 31 56, SSR mode AC equipped with DME, HF, ADF, GPSINS, CPDLS, FANS, I/A, VHF, RTF mode 2, satellite communications, ATC wireless telephone, PBN permission, RVSM permission with 8.33kHz, VHF and SSR transponder with mode S, aircraft identify equipment atmosphere pressure altimeter send equipment, ADS capability enhanced surveillance capability, with 1090MHZ, ADS-B, transmit capability with FANS 1/A ADS-C, Alternate air drome, Chongqing, Guiyang, Cruising speed 0.81m, and cruising level 1 1400m route DHN A575LR G212 SUBUL, W29 WFX other information: VIP, PBN capability is A1B2B3B4B5D1L1, aircraft based augmentation systems (GBAS), Aircraft Identification is B-2631, they are at Beijing FIR boundary 1 hour and 12 minutes select call is KMAL (fly over Beijing Taiyuan Xi'an ACC)

1. Edit the FPL (include head) (10 points)

2. Before the flight, aircraft change to another one, change information:

Type is H777, identification is B-5128, edit CHG (3p)

3. Edit the coordination procedures between Chengdu Xi'an (ESE, CDN, ACP), hand over point SUBUL, time: Beijing time 1740: chengdu request delay 5 minutes to accept the High, Xi'an accept the restriction (include head) (5p).

第一题

1. Air Traffic Management consists of( )

- A. Air traffic service, air traffic flow management, airspace management;
- B. Air traffic service, air traffic flow management, alerting service;
- C. Air traffic control service, flight information service, alerting service;
- D. Air traffic service, flight information service, airspace management.

2. According to the ICAO criteria, in which class of airspace, VFR flights is prohibited?( )

- A. class A      B. class B      C. class C      D. class D

3. Which of the following ATS units is mainly responsible for receiving, handling and sending flight plan?

- A. Tower Control office
- B. Approach Control Office
- C. Area Control Office
- D. Air Traffic Service Reporting Office.

4. When the radio communication failed the squawk should be set to?

- A. A7700    B. A7600    C. A7560    D. A2200

5. Which of the following is the correct description on Flight Information Region (FIR)?

- A. ATC service is provided in FIR.
- B. There are 11 FIRs in mainland of China.
- C. The scope of territory airspace of a country is the same as FIRs in that country.
- D. The scope of FIRs in one country is the same as Search Rescue Region in that country.

6. Which is responsible for search and rescue over maritime areas in FIRs managed by China. ( )

- A. CAAC
- B. Operations Management Center of Regional ATMB
- C. Government of each province
- D. Maritime Search and Rescue Center

7. In China, when two aircraft are converging and there is a danger of collision, The aircraft which sees the other aircraft from the right side of the cabin should.

- A. descend
- B. climb
- C. turn right
- D. turn left

8. Which of the following ATS units is NOT a terminal ATFM unit?

- A. Tower Control Office
- B. Approach Control Office
- C. Area Control Office
- D. Operations Management Center of Regional ATMB

9. Air traffic controllers shall not be on duty within ( ) hours after drinking alcohol ( )

- A. 4
- B. 6
- C. 8
- D. 10

10. According to categorization based on wake turbulence, A350, B737 and Y7 can be categorized as ( ) respectively.

- A. M, M, L
- B. H, M, L
- C. M, M, M
- D. H, M, M

11. In aerodrome terminal airspace, when an arrival flight at transition altitude climbs to transition level, the pilots should switch the altimeter setting

- A. from QNE to QFE
- B. from QNH to ONE
- C. from ONE to QNH
- D. from QFE to ONE

12. Which of the following is NOT a measure used in tactical ATFM phase?

- A. Ground Delay Program
- B. Ground Stop
- C. Management of Flight Schedule
- D. Airborne Holding

13. Which of the following statements about ATIS is correct?

- A. ATIS is numbered by sequence of letters
- B. Information on multiple aerodromes can be broadcast on one ATIS frequency
- C. ATIS can be set on ILS frequency
- D. ATIS is only useful for departure aircraft

14. The speed indicated on radar screen is ( ) while the speed that issued by controller to be adjusted is ( )

- A. DAS, GS      B. GS, IAS      C. CAS, IAS      D. IAS, GS

15. Which is not the situation in alerting phase?

- A. emergent signal been sent
- B. after uncertainty phase 30' no contact with the aircraft
- C. after landing clearance, 5' after the landing time, no landing and no communication.
- D. the captain decide to belly land or it's possible

16. After getting the licence, controller should be tested each ( ) years.

- A. 1      B. 2      C. 3      D. half

17. The reception and processing of FPL by ARO belongs to the phase of ( )

- A. Preliminary Preparation for Flight
- B. Direct Preparation for Flight
- C. Implementation of Flight
- D. De-briefing of Flight

18. The correct statement about the painting of nationality mark and registration mark regulated by CAAC is ( )

- A. the upper surface of the left wing structure, and the lower surface, of the right wing structure, B2272;
- B. the lower surface of the left wing structure, and the upper surface of the right wing structure, B2272;
- C. the upper surface of the left wing structure and the lower surface of the right wing structure, B-2272;
- D. the lower surface of the left wing structure, and the upper surface of the right wing structure, B-2272.

19. Which of the following equations is NOT correct in statistics of flight punctuality?

- A. Flight Punctuality Rate = Number of Punctual Flights / Number of Planned Flights
- B. Departure Taxi Time = Actual Take-off Time - Actual Off-Block Time
- C. Arrival Taxi Time = Actual Landing Time - Actual In-Block Time
- D. Delivery Punctuality Rate = Number of Punctual Delivered Flights / Number of Delivered Flights

20. Each ATC position should equip at least ( ) controllers to accomplish the task.

- A.1
- B.2
- C.3
- D.4

21. About flight level, "F" followed by ( ) figures: indicates a flight level, "S" followed by ( ) figures: indicates a cruising level, "A" followed by ( ) figures: indicates an altitude, "M" followed by ( ) figures: indicates an altitude.

A.3,3,3,3

B.2,3,4,5

C.3,4,3,4

D.4,4,4,4

22. In AFTN, ( ) figures describing date, ( ) 4 figures describing time(UTC)( )

A.6,6

B.4,6

C.6,4

D.4,4

23. In AFTN, about Field Type 10, Which of the following is NOT right?

A.-S/C

B.-SCI/ACBI

C.-SAFR/SVI

D.-ADE3RV/HB2U2V2G1

24. If the altimeter setting on an aircraft is higher than the actual QNH, then the altitude of the aircraft is ( ) it should be.

A.higher than

B. lower than

C. equal to

D. not of above all



25. when aircraft ( ) it can be categorized as "Medium".

- A. Aircraft's MTOW  $\geq 136,000\text{kg}$
- B. Aircraft's MTOW  $< 136,000\text{ kg}$
- C. Aircraft's MTOW  $< 7,000\text{kg}$
- D.  $7,000\text{kg} \leq \text{Aircraft's MTOW} < 136,000\text{ kg}$ .

判断题

1. Code 7500 alerts ATC that an aircraft has been hijacked.
2. In AFTN telegram, CPL message is used to request flight plan
3. The radio communication recordings in ATS units should be kept for at least 30 days.
4. The longitudinal separation minimum in VFR is 2Km if aircraft's IAS is not less than 250Km/h.
5. In China normally the maximum number of aircraft controlled at the same time in one sector in area control center under radar control is 12.
6. If "PANPAN" is sent by the pilots, it means the aircraft is in distress phase.
7. Aircraft proximity occurs if either horizontal separation or vertical separation is less than the regulated separation minimum.
8. If the pilot proposes to change from instrument flight to visual flight, the controller must be allowed to ensure that the control efficiency is increased.
9. The pilot may change from instrument flight to visual flight at his own discretion, depending on the weather conditions.

10. Non-Radar control separation is usually much larger than radar control separation.

填空题 Assume QNE = 1013hpa, pressure elapse rate = 8m/hpa.

1. The radar data in ATS units should be kept for \_\_\_\_\_ at least.
2. In radar control, the area controller can control no more than \_\_\_\_\_ aircrafts at the same time.
3. ATC is prompted by the \_\_\_\_\_ and its development is closely associated with \_\_\_\_\_, navigation and \_\_\_\_\_ technology.
4. Air traffic control service is mainly provided by \_\_\_\_\_ approach control \_\_\_\_\_ and air traffic service reporting office.
5. An aerodrome's elevation is 600m, and its initial approach altitude is 1800m, the TA is \_\_\_\_\_ m, TL is \_\_\_\_\_ m.
6. The phase of emergency can be divided into \_\_\_\_\_ alert phase \_\_\_\_\_.
7. The emergency descent when depressurization occurs is: turn \_\_\_\_\_ degrees to the right from the aircraft flying direction, track out \_\_\_\_\_ Km, turn left to parallel the original air route, then descend to \_\_\_\_\_ m or en-route MSA.
8. APP office in charge of the control of \_\_\_\_\_ in its control scope.
9. Control transfer includes \_\_\_\_\_ & \_\_\_\_\_.
10. The captain adjust aircraft's speed, the benchmark is \_\_\_\_\_, and \_\_\_\_\_ Km/h or its multiple.
11. Aircraft proximity incident with danger index not less than \_\_\_\_\_ is categorized as air transport serious incident.
12. 121.5MHz and \_\_\_\_\_ MHz communication equipment are required by ATCU and onboard aircrafts for search and rescue, \_\_\_\_\_ KHz communication equipment for maritime search and rescue.
13. An aerodrome's elevation is 500m and a nearby obstacle's elevation is 1800m. An aircraft reports its height is 1200m (using QFE), so the height from the aircraft to the obstacle is \_\_\_\_\_ m.

14. In a terminal near an aerodrome, when QNH is below 979hpa (inclusive), Transition Altitude should be \_\_\_\_\_ by \_\_\_\_\_ m.

15. There are \_\_\_\_\_ westbound cruising levels in RVSM airspace in China from 6000m(inclusive) to 9200m(inclusive).

16. Minimum safety altitude of IFR in the vicinity of aerodromes in mountainous area, should be above the highest obstacle within a radius of \_\_\_\_\_ Km for at least \_\_\_\_\_ m

17. There are \_\_\_\_\_ Flight Information Region in China.

IV, Answering questions shortly. (10 points)

1. Why absolute height is not widely applied in ATC? (5 points)

空管新青年 — leohuai学长

2. Please describe the basic quality for ATC. (5 points)

, Calculation. (7 points)

1. An aerodrome's TA is 4200m, TL is 4800m, the elevation is 1500m, QFE=817hpa. Please calculate the thickness of Transition Layer (Assume QNE=1013hpa, pressure lapse rate=8.5m/hpa)

VI, AFTN Applications (18 points)

Read following FPL, answering the questions.

FF ZGGGXZX ZBYNXZX ZHCCZX ZHHHXZX ZGKLZX ZBTJZPX ZBBBZGX  
X 291315 ZBAAZPX

(FPL-CCA1301/A4321-IS)

-B744/H-S/C

-ZBAA0200

-N0480S1010 CD SJW WXI2285036m082s0980a46136n115

-7GGG0240 ZGSZ.

-DOF/180215 REG/B2442 EET/ZHCC0100 WXLOLO1 SEL/DFCH)

1. Describe the light plan according to the FIL above. excluding head, 8 points)

2. Delayed to 0535 due passenger delay, send DLA. (excluding head, 5 points)

3. Airborne time is (550, send DEP. (exciuding head, 5 points)