

Airmen's Academic Examination

M 1

Qualification	First class aircraft maintenance technician (Aeroplane) First class aircraft line maintenance technician (Aeroplane)	No. of questions ; time allowed	20 questions; 40 minutes
Subject	Civil Aeronautics Law (subject code : 04)	Code	CCCC0421B1

Explanatory Notes : (1) In the designated spaces on the Airmen's Academic Examination Answer Sheet (Multiple-Choice Answers) (mark sheet), write your examinee number, examinee number mark, subject, subject code, subject code mark, qualification, qualification category, name, and date of birth.

If you write your examinee number, examinee number mark, subject code, and / or subject code mark incorrectly, computer grading will not be possible and you will fail the subject.

(2) Write your answers on the Airmen's Academic Examination Answer Sheet (Multiple-Choice Answers) (mark sheet).

Point Allocation : All questions are worth five points each.

Pass Mark : The pass mark is 70 %.

- Q 1 Which of the following items is not a purpose of the Civil Aeronautics Act ?
- (1) Conforming to international law
 - (2) Ensuring the safety of navigation of aircraft
 - (3) Preventing problems arising from navigation of aircraft
 - (4) Seeking proper and rational management of business for operating aircraft
 - (5) Being based on international law
 - (6) Observing the Japan-U.S. Aviation Security Treaty
- Q 2 Which of the following items does not correspond to the provisions concerning air navigation services ?
- (1) Operation on board an aircraft
 - (2) Confirmation under the provisions of Article 19 paragraph 2 with regard to aircraft of which maintenance or alteration has been performed
 - (3) Operation of radio equipment on board an aircraft
 - (4) Approval of flight plan by Flight Dispatcher
- Q 3 Which of the following items does not correspond to air navigation facilities ?
- (1) Aeronautical lights
 - (2) Control tower
 - (3) Instrumental landing system
 - (4) Satellite-based augmentation system
 - (5) Obstacle markings
- Q 4 Which of the following statements is correct as a case where the owner of an aircraft that has been newly registered must undertake a legal process after the registration ?
- (1) Performing alteration of registration if the owner of the registered aircraft is changed.
 - (2) Performing transfer of registration if the home-base of the registered aircraft is changed.
 - (3) Performing alteration of registration if the name or address of the owner of the registered aircraft is changed.
 - (4) Performing deletion of registration if the registered aircraft has been missing for 1 month or more.

- Q 5 The following statement is an excerpt from the provision set forth in the airworthiness certification. Which of the combinations of words/phrases that should fit in (A) to (C) is correct ? Select from options (1) to (4).

Article 10 (4) The Minister of Land, Infrastructure, Transport and Tourism shall, upon application under paragraph 1, inspect the (A), (B) and (C) to certify whether the said aircraft complies with the standards listed below, and shall grant airworthiness certification if he/she finds that the said aircraft meets these standards.

	(A)		(B)		(C)
(1)	design	•	manufacturing process	•	completion
(2)	plan	•	limit	•	current conditions
(3)	design	•	manufacturing process	•	current conditions
(4)	plan	•	limit	•	completion

- Q 6 The following statement is an excerpt from the provision set forth in " Period of Validity of Airworthiness Certification " of the Civil Aeronautics Act. Which of the combinations of phrases that should fit in (A) to (D) is correct ? Select from options (1) to (4).

Article 14 The period of validity of an airworthiness certificate shall be (A) ; provided, however, that the period of validity of such airworthiness certificate with regard to aircraft used for air transport services or aircraft that is maintained in accordance with a maintenance manual with approval set forth in paragraph 1 of the following article (in the case of (B) under paragraph 3 of the said article or (C) under the provision of paragraph 5 of the said article, a version of the manual after such a change shall be adopted ; the same shall apply in paragraphs 3 and 7 of the said article) shall be (D).

	(A)		(B)		(C)		(D)
(1)	one year	•	approval	•	notification	•	a period specified by the Minister of Land, Infrastructure, Transport and Tourism
(2)	a period specified by the Minister of Land, Infrastructure, Transport and Tourism	•	approval	•	notification	•	one year
(3)	one year	•	notification	•	approval	•	a period specified by the Minister of Land, Infrastructure, Transport and Tourism
(4)	a period specified by the Minister of Land, Infrastructure, Transport and Tourism	•	notification	•	approval	•	one year

Q 7 Which of the following is not consistent with the matters described in the Flight Manual ?

- (1) Aircraft general
- (2) Aircraft performance
- (3) Minimum Equipment List
- (4) Items relating to engine emission
- (5) Operating procedures of various systems and other procedures that shall be carried out in case of emergency
- (6) Items relating to aircraft noise

Q 8 The following statement is an excerpt from the provision set forth in " Maintenance and Alteration " of the Ordinance for Enforcement of the Civil Aeronautics Act. Which of the phrases that should fit in (A) is correct ? Select from options (1) to (4).

Article 5-6 Contents of maintenance or alteration work shall be as prescribed in the following table based on the category of work listed in the following table.

Category of Work		Contents of Work	
Maintenance	Preservation	Minor preservation	(Omitted)
		General preservation	(A)
	Repair	Slight repair	(Omitted)
		Minor repair	(Omitted)
		Major repair	(Omitted)

- (1) Work that has a minor impact on airworthiness, and does not require operational check of the power system or any other complex checks in its confirmation
- (2) Replacement of a standard piece of equipment or part that is simple preservative and preventive work, and is not accompanied by any complex assembly work
- (3) Preservation work other than Minor Preservation
- (4) Replacement of a standard piece of equipment or part that is simple preservative and preventive work, and is not accompanied by adjustment of density or clearance

- Q 9 Which of the following explanations of " Type Certification " in Article 12 of the Civil Aeronautics Act is correct ?
- (1) Type certification is granted if the type of aircraft described in the application is deemed to comply with the standards set forth in paragraph 4, Article 10 of the Civil Aeronautics Act.
 - (2) The manufacturing method for the type of aircraft described in the application is certified.
 - (3) Compliance of the type of aircraft described in the application with the standards set forth in paragraph 4, Article 10 of the Civil Aeronautics Act is audited in design.
 - (4) It is a system intended to exempt the type of aircraft described in the application from airworthiness certification.
- Q 10 Which of the following statements is correct about repair or alteration in the range specified by Ordinances of the Ministry of Land, Infrastructure, Transport and Tourism in terms of which the operator of aircraft with airworthiness certification should have an inspection for repair and alteration (Civil Aeronautics Act, Article 17) ? Note, however, that the said aircraft shall be an aircraft that is specified by Ordinances of the Ministry of Land, Infrastructure, Transport and Tourism for use for air transport services.
- (1) Alteration
 - (2) Repair or alteration
 - (3) Major repair or alteration
 - (4) Major repair or major alteration
- Q 11 Which of the following statements is incorrect about cases where in its approval of organizations (Civil Aeronautics Act, Article 20) , the Minister of Land, Infrastructure, Transport and Tourism orders the said approved organization to suspend business ?
- (1) When the capabilities of the said approved organization cease to comply with the technical standards.
 - (2) When the said approved organization violates its organization exposition.
 - (3) When the said approved organization violates the provisions of Ordinances of the Ministry of Land, Infrastructure, Transport and Tourism.
 - (4) When a registered aircraft that the said approved organization owns has been lost or dismantled.

- Q 12 If an aircraft with airworthiness certification is maintained in relation to maintenance or alteration of aircraft, the aircraft maintenance technician must make confirmations for use of the aircraft for air navigation. Which of the following statements is correct as the confirmation to be made in this case ? Note, however, that pieces of aircraft specified by Ordinances of the Ministry of Land, Infrastructure, Transport and Tourism for use for air transport services are excluded.
- (1) Confirming that the standards as specified by Ordinances of the Ministry of Land, Infrastructure, Transport and Tourism with regard to strength, structure and performance to ensure the safety of aircraft are complied with.
 - (2) Confirming that the standard for an organization exposition established by the operator of the said aircraft is complied with.
 - (3) Confirming that the standard for a safety management manual established by the owner of the said aircraft is complied with.
 - (4) Confirming that the standard for a maintenance manual established by the manufacturer of the said aircraft is complied with.
- Q 13 Which of the following statements is correct as the rating on Category of aircraft in " Rating on Competence Certificate " ?
- (1) A group type such as aeroplane or rotorcraft.
 - (2) A group type such as single-engine piston land or multi-engine turbine sea.
 - (3) A group type such as Cessna 172 or Boeing 747.
 - (4) A group type such as aeroplane transportation T or aeroplane normal N.
- Q 14 Which of the following options is incorrect as the matters that should be entered in the aircraft flight logbook (Ordinance for Enforcement of the Civil Aeronautics Act, Article 142) ?
- (1) Airworthiness category and the number of airworthiness certificate
 - (2) Signature of the aircraft dispatcher
 - (3) Date of manufacture of the aircraft
 - (4) Purpose of the flight, or flight number
 - (5) Type of the propeller
- Q 15 Which of the following options is incorrect as the goods subject to " Prohibition for Carriage of Explosives, etc. " in aircraft ?
- (1) Goods of explosive or highly combustible nature
 - (2) Goods which are liable to injure humans
 - (3) Goods which are liable to damage other substances
 - (4) Goods which contain a device generating a radio frequency, buzz-saw noise or the like

- Q 16 Which of the following options is correct as the matters set forth in the safety management manual ?
- (1) Matters concerning the authority, responsibility and career of the person in charge of management.
 - (2) Matters concerning compensation to be made in the event of an accident, disaster or the like
 - (3) Matters concerning the scope and content of an aircraft frame maintenance service to be entrusted to an external company
 - (4) Matters concerning the authority and responsibility of the safety manager
- Q 17 Which of the following options is incorrect as the events occurring during the flight of an aircraft that domestic air carriers should report to the Minister of Land, Infrastructure, Transport and Tourism in reporting events which affect safety ?
- (1) Any event in which the aircraft frame is damaged
 - (2) Any event in which any important system for safety installed in the aircraft does not function normally
 - (3) Any event in which emergency equipment or first aid kits do not function normally
 - (4) Any event in which failure in functions of air navigation security facilities is observed
- Q 18 Which of the following options is correct as the penalties/punishments of any person who falls under the category of " Offences of Operations, etc., of Air Navigation Services without Prescribed Qualifications " ?
- (1) A fine of up to one million yen
 - (2) Prison sentence of up to one year or a fine of up to 300,000 yen
 - (3) Prison sentence of up to two years or a fine of up to 50,000 yen
 - (4) Prison sentence of up to two years
- Q 19 Which of the following options is correct as the " standards as specified in Annex 3, " as set forth in paragraph 3, Article 14 of the Ordinance for Enforcement of the Civil Aeronautics Act ?
- (1) Aircraft noise standards
 - (2) Standards for engine emissions (excluding carbon dioxide) of aircraft
 - (3) Standards for aircraft operational limitations
 - (4) Standards for the strength, structure and performance intended to secure the safety of aircraft and its equipment

- Q 20 The sentences below explain the importance of human factors. Which of the following combinations of phrases that should fit in (A) to (D) is correct ? Select from options (1) to (4).

With the advancement of aviation technology, the (A) of aircraft has continued to decline. However, the decline has recently been slowing down.

In terms of causes of accidents, the ratio of those resulting from (B) has declined with the times. However, recently, the ratio of accidents caused by mistakes by (C), or human errors in other words, has accounted for a larger portion.

Therefore, to further decrease aircraft accidents, it is important to prevent human errors to the extent possible, and for that purpose, it has become necessary to learn the (D) and its limit, understand the idea of human factors for effectively using that knowledge, and take an appropriate response that takes into account those.

- | | (A) | (B) | (C) | (D) |
|-----|---------------------------------------|-----------------------|------------------------|-------------------------------|
| (1) | accident caused by a flight error | form of operation | maintenance technician | capacity of equipment |
| (2) | failure caused by a maintenance error | maintenance method | pilot | fatigue control for the pilot |
| (3) | failure rate | maintenance technique | manufacturer | support of the manufacturer |
| (4) | rate of accidents | equipment | people | human capability |