ERA 808

航空無線通信士「英語」試験問題

5問　1時間30分

1. 次の英文を読み、それに続く設問**A-1**から**A-5**までに答えなさい。解答は、それぞれの設問に続く選択肢1.から3.までの中から答えとして最も適切なものを一つずつ選び、その番号のマーク欄を黒く塗りつぶしなさい。

Flying in and out of Singapore, home to Southeast Asia's busiest airport, will get slightly more expensive this year as the city state begins imposing a levy of between 75 cents to $32 per ticket to fund sustainable aviation fuel (SAF). For flights departing after Oct. 1 passengers will pay a surcharge based on their trips' distance and cabin. The lowest levy of 1 Singapore dollar (about 75 U.S. cents) will apply to economy flights within Southeast Asia. Those traveling in premium cabin flights to the Americas will pay the most, 41.60 Singapore dollars (about $32). For cargo, the levy is based on distance traveled and weight. To ensure transparency, the tax will be shown on tickets and air cargo contracts.

Singapore has the region's largest SAF plant and is beginning construction of a next-generation facility this year, with set agreements to supply fuel to major carriers like JetBlue and Singapore Airlines. Thailand launched a brand-new SAF plant in Bangkok in 2025. Malaysia and Vietnam also hit domestic production milestones last year and Indonesia, like Singapore, recently announced plans to expand current operations. With Southeast Asia's abundant access to fuel ingredients, like agricultural and forest waste, the region is sitting on a "pot of gold that can really be scaled up," said Goh with Aether Fuels, the Chicago-based fuel development company building Singapore's new plant. "We can, if managed responsibly, support competitive and scalable SAF production," said Aung Soe Moe, a senior officer for air transport for the Association of Southeast Asian Nations (ASEAN). ASEAN estimates the region could produce 8.5 million barrels of SAF per day by 2050. Kelvin Lee, who leads sustainability in the Asia-Pacific region for the International Air Transport Association (IATA), the leading group of global airlines, said it is "natural that people are paying quite a bit of attention to SAF production in this part of the world. But we do still need quite a bit of government support to have that momentum continue".

Aviation contributes about 2.5% of annual global carbon emissions, according to the International Energy Agency (IEA), which says emissions from aviation are growing faster than those from any other transportation industry. With aviation demand rising, the UN-backed International Civil Aviation Organization (ICAO) set a goal of zero net carbon emissions for 2050. Using SAF could cut about 65% of the industry's emissions, it says. That prompted some airlines and countries to set SAF mandates.

＜注＞ levy　課税　　scalable　拡張性のある　　mandate　(義務化の)命令

(設問)

A-1　Which of the following is true about Singapore's new levy on airlines?

1. The surcharge will be shown on air tickets and cargo contracts.
2. Premium cabin passengers will not need to absorb higher costs for long-haul flights.
3. Singapore has forced neighboring nations to introduce higher levies to prevent rerouting to cheaper hubs.

A-2　What assumption about Southeast Asia's agricultural and forestry sectors indicates the region's potential for scalable SAF production?

1. Governments in the region have mandated that all agricultural and forest waste be reserved for SAF.
2. These sectors generate abundant organic waste materials that can be converted into sustainable aviation fuel.
3. These industries have already transitioned to renewable energy and their waste is available for alternative uses.

A-3　Which of the following can be inferred from Kelvin Lee's statement about the need for government support to maintain momentum in SAF production?

1. Although the industry has already committed sufficient capital, the government approvals are the bottleneck.
2. Governments will not be asked to fund any associated expenses to motivate industries to scale up production.
3. Market forces alone are unlikely to drive the rapid expansion of SAF production without government support.

A-4　What is the IEA's estimate regarding aviation's contribution to global carbon emissions?

1. Aviation contributes only 2.5% of the total carbon emissions, making it insignificant as a source of transportation-related pollution worldwide.
2. Aviation contributes approximately 2.5% of total carbon emissions, and its emissions are growing faster than those from any other transportation sector.
3. Aviation contributes much more than 2.5% of total carbon emissions, making it the single largest source of transportation-related pollution worldwide.

A-5　Which of the following best describes the ICAO's 2050 goal for carbon emissions in view of the rising aviation demand?

1. The rising demand may slow down for economic reasons and reduce pressure on the aviation industry.
2. The ICAO has decided to cap global aviation demand at current levels to make the 2050 target attainable.
3. As increasing demand for air travel makes zero net carbon emissions harder, the use of SAF is a critical element.

2. 次の英文 **A-6**から **A-9**までは、航空通信に関する国際文書の規定文の趣旨に沿って述べたものである。この英文を読み、それに続く設問に答えなさい。解答は、それぞれの設問に続く選択肢1.から3.までの中から答えとして最も適切なものを一つずつ選び、その番号のマーク欄を黒く塗りつぶしなさい。

A-6 Radio transmitting apparatus may be used only by members of the flight crew who are provided with a special license for the purpose, issued by the appropriate authorities of the State in which the aircraft is registered.

（設問） Who issues the special license mentioned in the rule?

1. The international aviation authorities
2. The airline company that authorizes flight crew members
3. The authorities of the State where the aircraft is registered

A-7 Aircraft earth stations are authorized to use frequencies in the bands allocated to the maritime mobile-satellite service for the purpose of communicating, via the stations of that service, with the public telegraph and telephone networks.

（設問） What are aircraft earth stations permitted to do according to this rule?

1. Communicate directly with public telegraph and telephone networks without using any kind of satellite station
2. Operate exclusively on frequencies reserved for aviation services when communicating with ground-based communication systems
3. Use frequencies in the maritime mobile-satellite service bands to connect with public telegraph and telephone networks through that service's stations

A-8 An aircraft station which has transferred communications watch from one radio frequency to another in the HF bands shall, when so required by the appropriate ATS Authority, inform the aeronautical station concerned that communications watch has been established on the new frequency.

（設問） What must an aircraft station do after changing frequencies as required by the appropriate ATS Authority?

1. Wait for a predetermined period of time before confirming whether the new frequency is functioning properly.
2. Notify the relevant aeronautical station that communications watch has been established on the newly selected frequency.
3. Request permission from the appropriate aeronautical station before changing the watch frequency to an alternative one.

A-9 Unless otherwise prescribed by the appropriate ATS authority, a report of arrival shall be made in person, by radiotelephony or via data link at the earliest possible moment after landing, to the appropriate air traffic services unit at the arrival aerodrome, by any flight for which a flight plan has been submitted covering the entire flight or the remaining portion of a flight to the destination aerodrome.

（設問） When must a report of arrival be made by a flight that has submitted a flight plan if there are no other means prescribed by appropriate ATS authority?

1. At the earliest possible moment after landing, unless specified differently by the appropriate ATS authority
2. Only after all passengers have disembarked and the flight crew has completed all post-landing checks and paperwork
3. At a certain time after landing, regardless of whether the aircraft has reached its parking position or is still on the runway

3. 次の設問**B-1**の日本文に対応する英訳文の空欄（ア）から（オ）までに入る最も適切な語句を、その設問に続く選択肢1.から9.までの中からそれぞれ一つずつ選びなさい。解答は、選んだ選択肢の番号のマーク欄を黒く塗りつぶしなさい。

（設問）

B-1 ウィングレットとは、商用航空機の翼端に取り付けられた、上向きに湾曲した小さな伸長部分である。当初は些細なものと思われていたこれらの改良は、空気力学的効率を高め、燃料消費量を削減することで、現代の航空業界を変革した。今日では、その機能強化された設計が、温室効果ガスの排出量を減らし、航空会社の運航コストを削減することで、持続可能性を高めている。

Winglets are small upward-bending extensions located at the ends of commercial aircraft wings. These improvements, which (　ア　) seemed (　イ　), transformed modern aviation by boosting aerodynamic efficiency and decreasing fuel (　ウ　). Today, the (　エ　) designs increase sustainability by (　オ　) greenhouse gas emissions and cutting operational costs for airlines.

1. consumption	2. descending	3. diminishing
4. efficiency	5. enhanced	6. eventually
7. initially	8. insignificant	9. insufficient

4. 次の設問**B-2**の日本文に対応する英訳文の空欄（ア）から（オ）までに入る最も適切な語句を、その設問に続く選択肢1.から9.までの中からそれぞれ一つずつ選びなさい。解答は、選んだ選択肢の番号のマーク欄を黒く塗りつぶしなさい。

（設問）

B-2 NASAのアルテミスIIミッションの宇宙飛行士たちは、歴史的な月への接近飛行を終え、地球に帰還した。彼らは月に関する膨大なデータを収集し、日食を目撃した。彼らはその過程において、オリオン宇宙船の生命維持システムをテストし、一部のNASA技術者の間で懸念を引き起こしていた耐熱シールドを使用して地球に帰還した。2022年の宇宙飛行士が乗船しなかったアルテミスIミッションでは、オリオン宇宙船の耐熱シールドは100箇所以上で損傷していた。

NASA's Artemis II mission astronauts have returned home, completing a historic (　ア　) flyby. They gathered (　イ　) data about the moon and (　ウ　) an eclipse. Along the way, they tested life support systems on the Orion spacecraft and returned to Earth using a heat shield that had raised concern among some NASA engineers. During the (　エ　) Artemis I mission in 2022, the Orion spacecraft's heat shield was (　オ　) in more than 100 locations.

1. damaged	2. glimpsed	3. lunar
4. solar	5. supreme	6. uncrewed
7. vanished	8. voluminous	9. witnessed

5. 次の設問**B-3**の日本文に対応する英訳文の空欄（ア）から（オ）までに入る最も適切な語句を、その設問に続く選択肢1.から9.までの中からそれぞれ一つずつ選びなさい。解答は、選んだ選択肢の番号のマーク欄を黒く塗りつぶしなさい。

（設問）

B-3 ノータムとは、電気通信の手段を用いて配信される、航空施設、業務、手順又は危険源に係る設置、条件又は変更に関係する情報を含む通知であり、それらの情報を適時に知ることは運航にかかわる要員にとって必要不可欠である。

NOTAM is a notice (　ア　) by (　イ　) of telecommunication containing information concerning the establishment, condition or change in any aeronautical (　ウ　), service, procedure or (　エ　), the timely knowledge of which is essential to (　オ　) concerned with flight operations.

1. barrier	2. distributed	3. facility
4. hazard	5. meanings	6. means
7. personal	8. personnel	9. transmitted