

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塗りつぶしなさい。

Cars that drive themselves could be ready for sale within a decade. These cars of the future may even be able to park at their destination without a driver! “This is not science fiction,” Larry Burns, a major automaker’s vice-president for research and development, said in a recent interview.

Much of the technology needed to produce the vehicles already exists. The most significant obstacles facing the vehicles could be human rather than technical. Possible problems that might affect the development of driverless vehicles include government regulation, liability laws and people’s passion for the automobile.

Automated vehicles could dramatically improve life on the road, reducing crashes and congestion, if people are interested. “Now the question is what does society want to do with it?” Burns said. “You’re looking at these issues of congestion, safety, energy and emissions. Technically there should be no reason why we can’t transfer to a totally different world.” He said that the company plans to test driverless technology by 2015 and have cars on the road by 2018.

Sebastian Thrun, co-leader of the Stanford University team that recently completed a 90-km race of driverless cars, said the automaker’s goal is possible but he isn’t confident cars will appear in showrooms within a decade. The recent contest, which began with 35 teams but finished with only 6, showed that the technology isn’t ready for full production. One team was eliminated after its vehicle nearly crashed into a building. Another car mysteriously pulled into a house’s carport and parked itself.

<注> liability 責任 congestion 混雑 emission 排気

(設問)

A-1 What do we know of the technology for driverless cars?

1. Car manufacturers have not yet begun to develop the necessary technology.
2. Car manufacturers already have much of the technology needed to build driverless cars.
3. Some of the technology needed to produce driverless cars comes from science fiction.

A-2 What does Larry Burns think is the biggest problem facing the future of driverless cars?

1. Although it is possible to build driverless cars, people and society may not want them.
2. There are likely to be too many technical problems to build driverless cars in the near future.
3. Driverless cars will probably be too dangerous for use in areas where many people live.

A-3 Which of the following does the article NOT say about driverless cars?

1. There would probably be fewer traffic jams if people used driverless cars.
2. Using driverless cars could lower the number of accidents on the road.
3. Driverless cars may be faster and more powerful than the cars we have at the moment.

A-4 How soon does Sebastian Thrun think driverless cars will be on sale to the public?

1. He believes that the cars will be on sale in the next few years.
2. He thinks it will take car manufacturers more than 10 years to start selling driverless cars.
3. He says that producing driverless cars will remain impossible and they will never go on sale to the public.

A-5 What happened at the recent race for driverless cars?

1. Many of the cars had problems.
2. All 35 teams taking part finished the race.
3. The race proved that driverless cars will be ready for production very soon.

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塗りつぶしなさい。

A-6 An aircraft shall be advised by the appropriate aeronautical station to transfer from one radio frequency to another in accordance with agreed procedures. In the absence of such advice, the aircraft station shall notify the appropriate aeronautical station before such a transfer takes place.

(設問) When should an aircraft station inform an aeronautical station of a transfer of radio frequency?

1. An aircraft station may never transfer to another radio frequency without the advice of an aeronautical station.
2. The aircraft station should inform the proper aeronautical station before making the change.
3. It is up to the aircraft to notify the necessary aeronautical station as soon as possible after transferring the frequency.

A-7 When an aeronautical station has been unable to establish contact with an aircraft station after calls on the frequencies on which the aircraft is believed to be listening, it shall request other aeronautical stations to render assistance by calling the aircraft and relaying traffic, if necessary.

<注> render (援助などを)与える

(設問) What should an aeronautical station do if it is unable to establish contact with an aircraft on the normal frequencies?

1. The aeronautical station must request other aeronautical stations to listen to those frequencies and relay traffic.
2. It may need to ask other aeronautical stations for help in calling the aircraft and relaying traffic.
3. The aeronautical station must immediately attempt to assist the aircraft to relay traffic.

A-8 When an aircraft is unable to establish communication due to airborne equipment failure it shall, when so equipped, select the appropriate SSR code to indicate radio failure.

<注> airborne equipment 機上搭載機器 SSR 二次監視レーダ

(設問) What should an aircraft do in cases where communication fails because of technical problems in the air?

1. The aircraft is required to check all communications equipment immediately.
2. When an aircraft experiences airborne equipment failure, it should attempt to establish communication on another frequency.
3. If the aircraft has the necessary equipment, it should make its problem known by SSR.

A-9 An aircraft station which has transferred communications watch from one radio frequency to another shall, when so required by the appropriate ATS Authority, inform the aeronautical station concerned that communications watch has been established on the new frequency.

<注> ATS 航空交通業務

(設問) Which of the following is true?

1. In some cases, an aircraft station must notify the aeronautical station of a change of radio frequency.
2. An aircraft station should immediately inform the appropriate ATS Authority before any transfer of radio frequency.
3. The ATS Authority always requires an aircraft station to inform the aeronautical stations concerned of frequency transfers.

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塗りつぶしなさい。

（設問）

B-1 最近、ビルの屋上に造られた花壇や菜園をしばしば見ることができる。これらはわたし達をリラックスさせるだけでなく温室効果を和らげる働きがあると言われている。

It is quite common (ア) see rooftop flowers or (イ) gardens (ウ). They are said to be not only relaxing for people but helpful in (エ) the greenhouse effect (オ) well.

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|---------------|--------------|---------------|
| 1. as | 2. botanical | 3. increasing |
| 4. reducing | 5. that | 6. these days |
| 7. those days | 8. to | 9. vegetable |

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塗りつぶしなさい。

（設問）

B-2 新聞は、世界の航空各社は急激な原油高のため苦しい財政状態におかれ、アメリカのある航空会社は特別な収入源として、二つ目の手荷物を預ける乗客に対して、料金をとることを決めたと報じている。

It is being (ア) in the newspapers that the rapid surge in (イ) is placing heavy financial pressure (ウ) world airlines and one US carrier has decided to levy a (エ) on passengers who check in a second bag as an extra source of (オ).

- | | | |
|------------|----------------|---------------------|
| 1. charge | 2. cost prices | 3. crude oil prices |
| 4. expense | 5. on | 6. reported |
| 7. request | 8. revenue | 9. with |

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塗りつぶしなさい。

（設問）

B-3 管制承認をし、そしてそのような承認を反復する際、起こりえる混乱を避けるため、管制官やパイロットは、常に、管制承認が適用される航空機の呼出符号を付け加えなければならない。

In order (ア) avoid any (イ) confusion, (ウ) issuing ATC clearances and reading back such clearances, (エ) and pilots shall always add the call sign of the aircraft to which the clearance (オ).

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|-------------|----------------|------------|
| 1. applies | 2. controllers | 3. desires |
| 4. possible | 5. special | 6. that |
| 7. to | 8. when | 9. where |