

- 〔 1 〕 次の英文を読み、設問に答えなさい。なお、本文中〔 1 〕から〔 9 〕はパラグラフ（段落）を示しています。（40 点）

〔 1 〕 Kyoto taxi driver Takakazu Machi has been behind the wheel for the past 24 years in a city crammed with tourists and has done double duty as an English-language tour guide since 2010. “Back then you had to pass the national exam and get a license to be a tour guide,” explains Machi. “I first took the exam in 2009, but I was so tense and drank too much coffee that I had trouble breathing. I had to be taken to hospital.” The following year he avoided the caffeine and passed the exam.

〔 2 〕 But even after becoming a licensed guide-interpreter, Machi says it took about a year for him to be able to guide his foreign customers through Kyoto with confidence. “I started with notes made by my senpai driver guides, which hit all the hot spots like Nijyo Castle and Sanjusangen-do Temple. I memorized the lines, but couldn’t get the words out smoothly. ⁽¹⁾It took a lot of practice before I could perform without preparation and make jokes in English as a guide.”

〔 3 〕 Machi says that English had been a favorite school subject but his grades weren’t great. “I loved listening to Western music, hard rock bands like Rainbow and UFO, and memorized the lyrics without knowing what they meant. Singing out loud improved my pronunciation. I still sing in my cab when I’m alone.”

〔 4 〕 ⁽²⁾To pass the national exam, Machi set up his own study system that enabled him to work as he learned. “I would decide on a theme for the week or month, and concentrate on the skill I knew I was lacking. I listened to NHK Radio’s English conversation classes. I memorized phrases and sentences from some Orson Welles learning CDs. I also read English newspapers and made my own word list to memorize during work.”

〔 5 〕 When Machi first drove a taxi in Kyoto, foreign tourists weren’t so

interested in cherry blossoms. “Things have changed. Now, customers send me emails six months in advance, asking for the best dates to see the blossoms.” Other things have changed, too, like the sheer volume of online information available to foreign tourists. “Many people are well informed about Kyoto and its customs before they even arrive.”

[6] But skilled guides cannot be replaced by online knowledge. “I think that (3)a good guide is a good entertainer. I want to increase my stock of guiding tricks that would make people go ‘Ooh and aah.’ Seeing the happy expressions on customers’ faces is one of the greatest joys of my job.”

[7] Before driving a taxi, Machi worked for a cosmetics tools company in Osaka but the life wasn’t for him. “I started driving a cab in Kobe and many of the customers were foreign tourists. I would speak to them in English and it was a lot of fun. I thought to myself, ‘Hey, I can do this,’ and came to Kyoto with the intention of polishing up my language skills.”

[8] In Kyoto, there were many more foreign tourists than in Kobe and he discovered that there was also a considerable number of English-speaking drivers. “Some of my senpai were astoundingly good. They had extensive knowledge of the history of key Buddhist temples and they were able to explain all that in English, complete with jokes and insight. It was awe-inspiring.”

[9] As for himself, Machi sums up: “Good guiding is not a one-way street, but an exchange of words and ideas. I’ve learned not to over-explain things and I can sense the mood, so to speak, and adjust my guiding in accordance with the wishes and needs of my customers.”

問 1. 第2段落下線部(1)では、Machiが準備なしで冗談も交え自信を持って英語でガイドができるようになるまで多くの練習を要したとあるが、どのような練習をしたのか、日本語で述べなさい。

問 2. 第4段落下線部(2)では、Machiが独自の勉強方法を定めたとあるが、どのように英語を勉強したのか、30語程度の英語で(句読点は語数に含めない)述べなさい。

問 3. 第6段落下線部(3)で、Machiは良きガイドとはお客を楽しませるものとしているが、それ以外に Machiが良きガイドとはどのようなものを述べている段落を見つけ、その内容を 60字以内の日本語で(句読点は字数に含む)述べなさい。

問 4. 次のA～Dの出来事を過去から現在に並べ替え、記号で答えなさい。

- A. Machi became a confident guide.
- B. Machi became a taxi driver in Kobe.
- C. Machi failed in the tour guide exam.
- D. Machi worked for a cosmetics tools company.

問 5. 次のA～Fのうち、本文の内容に合致するものを2つ選び、記号で答えなさい。

- A. Machi has been working as an English-language tour guide for over 20 years.
- B. It took Machi less than a month to be a confident tour guide.
- C. Machi saw how much foreign visitors loved cherry blossoms during his first year in Kyoto.
- D. Machi believes that one talent for a good guide is a sense of humor.
- E. Online information cannot take the place of the skills of human guides.
- F. Machi once failed the national exam due to lack of caffeine.

〔 2 〕 次の英文を読み、設問に答えなさい。なお、本文中〔 1 〕から〔 7 〕はパラグラフ（段落）を示しています。（45 点）

〔 1 〕 A UK girl born deaf can now hear (ア), after an innovative gene-therapy treatment. Opal Sandy was treated shortly before her first birthday – and six months on, can hear sounds as soft as a whisper and is starting to talk, saying words such as “Mama”, “Dada” and “uh-oh”.

〔 2 〕 Given as eardrops, the therapy replaces faulty DNA causing her type of inherited deafness. Opal is part of a trial recruiting patients in the UK, US and Spain. Doctors in other countries, including China, are also exploring very similar treatments for the Otof* gene mutation* Opal has.

〔 3 〕 Her parents, from Oxfordshire, say the results have been mind-blowing – but allowing Opal to be the first to test this treatment, made by Regeneron, a biotechnology company, was extremely tough. “It was really scary, but we think we’d been given this unique opportunity,” they told me.

〔 4 〕 Her sister, Nora, five, has the same type of deafness and manages well wearing an electrical cochlear implant*. Rather than making sound louder like a hearing aid, it gives the “sensation” of hearing by directly stimulating the auditory nerve that communicates with the brain, avoiding the damaged sound-sensing hair cells* in a part of the inner ear known as the cochlea. In contrast, the therapy uses a modified, harmless virus to deliver a working copy of the Otof gene into these cells.

〔 5 〕 Opal had the therapy in her right ear, under general anaesthetic*, and a cochlear implant put into her left. Just a few weeks later, she could hear loud sounds, such as clapping, in her right ear. And after six months, her doctors at Addenbrooke’s Hospital in Cambridge (イ) that ear had almost normal hearing for soft sounds – even very quiet whispers. “It’s wonderful seeing her respond to sound,” chief investigator and ear surgeon Prof Manohar Bance told BBC News. “It’s a very joyful time.”

[6] Experts hope the therapy could also work for other types of profound hearing loss. More than half of hearing-loss cases in children have a (ウ) cause. And Prof Bance hopes the trial can lead to gene therapy being used for more common types of hearing loss. “What I am hoping is that we can start to use gene therapy in young children where we actually (エ) the hearing and they don’t have to have cochlear implants and other technologies that have to be replaced,” he said.

[7] Hearing loss caused by a variation in the Otof gene is not commonly detected until children are two or three years old, when a delay in speech is likely. But genetic testing for families at risk is available in the national hospitals. Prof Bance said: “The younger we can restore hearing, the better for all children because the brain starts to shut down its flexibility after the age of about three or so.”

Notes:

Otof*: タンパク質の一種

mutation*: 突然変異体

cochlear implant*: 蝸牛（内耳の一部）のインプラント, cochlea は cochlear
の名詞形

hair cells*: 有毛細胞

anaesthetic*: 麻酔

問 1. Opal の両親が治療の前にどのように感じたと言っていたか、第 3 段落の内容に基づいて日本語で述べなさい。

問 2. Opal の遺伝子による治療法を、第 4 段落の内容に基づいて日本語で述べなさい。

問 3. 次の A～D のうち、本文の第 7 段落の内容に合致しないものを 1 つ選び、記号で答えなさい。

- A. The treatment is more effective if it is given before the brain begins to lose its flexibility.
- B. Genetic testing for the treatment is desirable if a delay in speech is unlikely.
- C. Opal's type of hearing difficulty is usually not found at an age earlier than two or three.
- D. It is preferable to overcome hearing difficulties as early as possible.

問 4. 次の A～F のうち、本文の内容に合致するものを 2 つ選び、記号で答えなさい。

- A. Opal's gene treatment was the first success after frequent failure.
- B. Both of Opal's ears underwent the gene treatment.
- C. Once a cochlear implant is embedded, it doesn't need to be replaced.
- D. Opal was almost one year old when she underwent the gene therapy.
- E. The gene therapy has turned out to be effective for most hearing problems.
- F. Opal's improvement was observed within a few weeks of her gene treatment.

問 5. 本文中の空所(ア)～(エ)それぞれに入る最も適切な語を、次のA～Gから1つずつ選び、記号で答えなさい。ただし同じ語を2か所以上に使うことはできない。

- | | | | |
|------------|---------------|--------------|--------------|
| A. genetic | B. beneficial | C. restore | D. decreased |
| E. unaided | F. promising | G. confirmed | |

〔 3 〕 次の英文を読み、設問に答えなさい。なお、本文中〔 1 〕から〔 5 〕はパラグラフ（段落）を示しています。（45 点）

〔 1 〕 Leaders everywhere are rightly asking about how generative AI can benefit their businesses. However, as impressive as generative AI is, it's only one of many advanced data science and analytics techniques. While the world is focusing on generative AI, a better approach is to understand how to use the range of available analytics tools to address your company's needs. Which analytics tool fits the problem you're trying to solve? And how do you avoid choosing the wrong one? You don't need to know deep details about each analytics tool at your disposal, but you do need to know enough to envision* what's possible and to ask technical experts the right questions.

〔 2 〕 Start with the problem, not the technology. ⁽¹⁾Wielding* a (generative AI) hammer, everything starts to look like a nail. But, instead of asking how to do generative AI in your company, ask what you need to accomplish. Yes, AI can help explore, predict, optimize*, and recommend. But not every problem is an AI problem. "I don't need a generative AI strategy. What I need is an automation strategy," said Tom Peck, Chief Information and Digital Officer of Sysco. "A lot of things can be solved with more basic or traditional automation capabilities." Starting with the problem clarifies which tool you need.

〔 3 〕 Dutch air carrier KLM uses AI to predict which passengers are most likely to miss their flights, reducing delays by keeping their bags more accessible for offloading. However, it still uses traditional analytic optimization techniques for many problems in revenue management, ground staff planning, flight scheduling, crew planning, and engine maintenance. Boeing uses AI to optimize routes when approaching or departing from airports. But, despite considerable advances in speech recognition, Boeing still uses old-school voice communication between controllers and pilots since tolerance for mistakes in

that context is incredibly low and solutions would involve an entire industry ecosystem. (2)Importantly, not every AI experiment at Boeing becomes a method for solving business problems.

[4] To produce its (3)A350 aircraft faster than any aircraft ever before, Boeing's competitor Airbus built an AI-based system that recommends solutions for 70% of production disruptions*, including not just identifying problems and suggesting solutions, but also using complex self-learning algorithms to identify patterns that could help prevent future problems before they occur. This leaves just 30% of problems for humans to diagnose.

[5] Airbus didn't start by asking how to use AI in production, though. It began by identifying categories of production challenges and then deciding how it might deal with each challenge, including the problem of production delays. (4)AI was right for dealing with this latter problem, but not for dealing with all problems. Matthew Evans, vice president of digital transformation during the A350 production launch, bristled* at the idea of starting with the technology. "Strictly speaking, we don't invest in AI. We don't invest in natural language processing. We don't invest in image analytics. We're always investing in a business problem," he said. Airbus evaluated many options before deciding that this type of AI fit best.

Notes:

envision*: to imagine as a future possibility

wield*: to hold something, ready to use it as a weapon or tool

optimize*: to make something as good or effective as possible

disruption*: the act of stopping something from continuing in the normal way

bristle*: to react angrily or defensively

問 1. 第 2 段落下線部(1) “Wielding a (generative AI) hammer, everything starts to look like a nail.” によって筆者が伝えたい内容を次の文で説明する場合、空所に入る最も適切なものを A～D のうちから 1 つ選び、記号で答えなさい。

If you think too much about using generative AI, you will _____.

- A. believe all of your company’s problems are too difficult to solve
- B. become too aggressive in trying to solve your company’s problems
- C. believe you can solve all of your company’s problems with it
- D. never be able to solve any of your company’s problems

問 2. 第 3 段落下線部(2) を 日本語 に訳しなさい。

問 3. 第 4 段落下線部(3) “A350 aircraft” に関して Airbus 社が行ったことを、第 4 段落の内容に基づいて、日本語 で簡潔に要約しなさい。

問 4. 第 5 段落下線部(4) 中の “this latter problem” が何を指しているかを本文中から探し出し、日本語 で簡潔に答えなさい。

問 5. 次の A～E のうち、本文の内容に 合致しない のを 1 つ選び、記号で答えなさい。

- A. KLM uses AI to help prevent passenger delays that lead to missed flights.
- B. Even though AI speech recognition is improving quickly, Boeing still uses human voice communications between pilots and air traffic control.
- C. Instead of AI, Boeing prefers old-school technologies in its manufacturing process.
- D. Generative AI is one tool among many that companies use to address business issues.
- E. AI technology was not the Airbus company’s first choice in addressing its business issues.

〔 4 〕 Read the instructions below and write your answer in English. (40 点)

Imagine about 1 year has passed since you entered Kyushu University. You are now planning a trip to an island located in the Kyushu region to enjoy its beautiful beaches, delicious local foods, a museum that exhibits its unique history, etc.

There are advantages and disadvantages for each trip plan you are considering. Referring to the timetable below, write about which plan you would like to choose and explain your reasons in about 100 English words.

Plan A	Plan B
<u>Day 1</u>	
6:20 am: Boarding a ferry at Hakata Port (Return ticket: 15,000 yen)	
	9:00 am: Boarding an airplane at Fukuoka Airport (Return ticket: 30,000 yen)
	9:45 am: Landing at the airport on the island
11:50 am: Arriving at the island's port	Free time
Free time	
Staying at a hotel	Staying at a hotel
<u>Day 2</u>	
Free time	Free time
3:00 pm: Boarding a ferry at the island's port	
	6:00 pm: Boarding an airplane at the airport on the island
	6:45 pm: Landing at Fukuoka Airport
8:30 pm: Arriving at Hakata Port	

〔 5 〕 Read the instructions below and write your answer in English. (30 点)

Shopping streets, or shotengai, have been a part of Japanese daily life for the past 100 years. There are more than 15,000 of these local commercial districts across the country, but they are gradually being replaced by convenience stores, supermarkets, and shopping malls.

Explain in about 80 English words two possible effects of the decline of shopping streets in Japan, focusing on characteristic features of the shopping streets.