

令和3年度入学試験問題

外国語(英語)

コミュニケーション英語Ⅰ，コミュニケーション英語Ⅱ，
コミュニケーション英語Ⅲ，英語表現Ⅰ，英語表現Ⅱ

(4問)

令和3年2月25日

自15時20分

至17時20分

答案作成上の注意

- 1 この問題冊子には，コミュニケーション英語Ⅰ，コミュニケーション英語Ⅱ，コミュニケーション英語Ⅲ，英語表現Ⅰ，英語表現Ⅱの問題があります。総ページは11ページです。
- 2 解答用紙は2枚(計3ページ)です。解答はすべてその解答用紙に読みやすい文字で記入しなさい。
- 3 受験番号は，解答用紙の所定の箇所に，必ず記入しなさい。
- 4 解答用紙の大問ごとにある「得点欄」には何も記入してはいけません。
- 5 配付した解答用紙は，持ち出してはいけません。
- 6 試験終了後，問題冊子は持ち帰ってください。
- 7 この問題冊子の裏表紙には，試験時間中に机の上に置いてよいものを記載しています。

[I] Read the following passage and grasp the main idea. With this in mind, summarize each paragraph within 30 characters in Japanese including punctuation marks.

The world of education is currently undergoing a massive transformation as a result of the digital revolution. This transformation is similar to the transition from apprenticeship^(注 1) to universal schooling that occurred in the 19th century as a result of the industrial revolution. In the apprenticeship era, most of what people learned occurred outside of school. Universal schooling led people to identify learning with school, but now the identification of the two is unraveling^(注 2).

All around us people are learning with the aid of new technologies: children are playing complex video games, workers are interacting with simulations that put them in challenging situations, students are taking courses at online high schools and colleges, and adults are consulting Wikipedia. New technologies create learning opportunities that challenge traditional schools and colleges. These new learning niches^(注 3) enable people of all ages to pursue learning on their own terms. People around the world are taking their education out of school into homes, libraries, Internet cafes, and workplaces, where they can decide what they want to learn, when they want to learn, and how they want to learn.

Who will benefit ultimately from this revolution? In America there is a commercial push to sell educational products to consumers who are looking for an edge up in the race for success. This means that technological products and services are popping up all over the American landscape. Education, once viewed as a public good with equal access for all, is now up for sale to those who can afford specialized services and computer programs.

We think schools have served America and the world very well. We greatly admire the teachers who have dedicated themselves to helping children from different backgrounds to learn and succeed in a changing world. Schools have made invaluable contributions to the world's development, and we think they will continue to do so well into the future. However, we think it is time that educators and policy makers start to

rethink education apart from schooling. Education is a lifelong enterprise, while schooling for most encompasses only ages five to 18 or 21. Even when students are in school, much of their education happens outside of school. We all know that technology has transformed our larger society. It has become central to people's reading, writing, calculating, and thinking, which are the major concerns of schooling. And yet technology has not been considered very important in schools, used for the most part only in specialized courses.

The central challenge is whether our current schools will be able to adapt and incorporate the new power of technology-driven learning for the next generation of public schooling. If schools cannot successfully integrate new technologies into what it means to be a school, then the long identification of schooling with education, developed over the past 150 years, will dissolve into a world where wealthier students pursue their learning outside of the public school.

(Adapted from *Rethinking Education in the Age of Technology* by Allan Collins and Richard Halverson, 2009)

(注1) apprenticeship 徒弟制度

(注2) unravel ほどける

(注3) niche ふさわしい場所

〔 II 〕 Read the following two passages and answer the questions.

資料 1

A cave-wall depiction of a pig and buffalo hunt is the world's oldest recorded story, claim archaeologists who discovered the work on the Indonesian island Sulawesi. The scientists say the scene is more than 44,000 years old. The 4.5-metre-long panel features reddish-brown forms that seem to depict human-like figures hunting local animal species. Previously, rock paintings found in European sites dated to around 14,000 to 21,000 years old were considered to be the world's oldest clearly narrative artworks. The scientists working on the latest find say that the Indonesian art predates these.

Such artworks are notoriously difficult to date because they can be made with raw materials, such as charcoal^(註 1), which can be much older than the paintings themselves. But scientists excited the archaeological world when they reported, in 2014 and 2018, that caves in Sulawesi and Borneo held artworks, including animal paintings, which were older than 40,000 years.

The panel seems to depict wild pigs found on Sulawesi and a species of small-bodied buffalo, called an anoa. These appear alongside smaller figures that look human but also have animal traits such as tails and long noses. In one section, an anoa is surrounded by several figures holding spears and possibly ropes. The depiction of these animal-human figures, known in mythology as therianthropes^(註 2)⁽¹⁾, suggests that early humans in Sulawesi had the ability to conceive of things that do not exist in the natural world, claim the researchers⁽²⁾. The oldest such example from Europe is a half-lion, half-human ivory figure from Germany that researchers have estimated to be 40,000 years old—although some suggest that it might be significantly younger. A roughly 17,000-year-old painting⁽³⁾ of a bison chasing a bird-headed human, from Lascaux Cave in France, is considered to be one of the earliest depictions of a clear scene in European rock art.

To determine the age of the hunting scene, researchers led by archaeologist Maxime Aubert, at Griffith University, Australia, analysed calcite^(註 3) 'popcorn' that had

built up on the painting. Radioactive uranium in the mineral slowly decays into thorium. So by measuring the relative levels of different isotopes^(注 4) of these elements, the researchers were able to determine that calcite on top of one pig began forming at least 43,900 years ago, and deposits^(注 5) on two anoas are older than 40,900 years. The dating gives scientists clues about the origins of figurative art. “It has always been assumed that the tradition of figurative painting arose in Europe,”⁽⁴⁾ says Alistair Pike, an archaeological scientist at the University of Southampton, UK. “This shows the tradition does not have its origins in Europe.” But he notes that the researchers dated only the portions of the painting that show animals, so it’s possible that the therianthropes were added later. Aubert says the team did not find calcite samples over the therianthropes.

Aubert thinks the animals and the therianthropes were painted at the same time. They are of similar colour and weathered in the same way, he notes, and all the other cave art from the region is from the same time period. Archaeologist Bruno David, at Monash University in Melbourne, Australia, agrees with Aubert’s interpretation.

If the entire painting is more than 44,000 years old, it could mean that early humans arrived in southeast Asia with the capacity for symbolic representation and storytelling, David argues. Archaeologists have already found paint palettes and objects such as eggshells with abstract engravings made by early humans in southern Africa, he adds. “It’s probably only a matter of time before narrative paintings of this, and much older age, are found in Africa.”

(Adapted from *Nature*, December 11, 2019)

(注 1) charcoal 木炭

(注 2) therianthrope 獸人

(注 3) calcite 方解石

(注 4) isotope 同位体

(注 5) deposit 附着物

資料 2

Some 44,000 years ago, an artist climbed high onto a cave ledge on an Indonesian island, paintbrush in hand. Perhaps inspired by spiritual visions, the artist sketched a dynamic scene featuring tiny, animal-like figures armed with spears cornering wild hogs and small buffaloes. In a new study, researchers argue that the scene’s visionary storytelling—which they claim represents the oldest known figurative art made by modern humans—shows that people already had imaginations much like our own at the time of the cave painting, and likely much earlier. “We think of the ability for humans to make a story, a narrative scene, as one of the last steps of human cognition^(註 1),” says the study’s lead author, Maxime Aubert, an archaeologist at Griffith University in Nathan, Australia.

In 2017, co-author Pak Hamrullah, an Indonesian archaeologist and caver, noticed a small opening in the ceiling of a previously explored limestone^(註 2) cave. Scrambling up a fig tree vine, he found his way into a smaller cave. Its far wall bore a panel, painted with an orange-red pigment^(註 3). When Aubert saw it, he was astounded. “I thought, ‘Wow, it’s like a whole scene,’” he says. “You’ve got animal-like figures, hunting or capturing these animals. It was just amazing.” The hunted animals appear to be the Sulawesi wild pig and an anoa, or dwarf buffalo, both of which still live on the island. But it was the animal-like figures, armed with spears or ropes, that captivated Aubert. Several appear to have long noses. One seems to possess a tail, while another’s mouth resembles a bird beak. The features could depict masks or other camouflage, but the researchers argue that dressing like small animals would be a poor disguise for hunters. More likely, the figures represent mythical animal-human hybrids, Aubert says. Such hybrids feature in several instances of early artwork, including a 35,000-year-old ivory figure of a lion-man found in the German Alps.

To date the Sulawesi cave painting, Aubert carefully picked out a few centimeter-wide pieces from the painted cave wall—avoiding the figures and trying to do as little damage as possible—and brought the pieces back to his lab. Over the years, as rainwater passed through tiny holes in the cave’s limestone and ran slowly down its

walls, it left small (a) deposits called cave (b) on top of the paint. The popcorn holds small amounts of (c), which over time decays into (d) at a fixed rate. By analyzing the ratio of uranium to thorium in the mineral layer directly on top of the pigment, the researchers calculated the painting's minimum age: 44,000 years old,⁽⁶⁾ they report in *Nature*. That would make the cave scene at least 4,000 years older than other instances of figurative ancient rock art found in Indonesia and Europe, and some 20,000 years older than the oldest depictions of hunting scenes in Europe.

The ability to imagine beings that don't exist is a critical cognitive milestone, Aubert says, and forms the roots of religion and spirituality. Seeing this ability fully formed 44,000 years ago in Sulawesi suggests it was probably already present in the early modern humans who left Africa and populated the rest of the world. Nicholas Conard, an archaeologist at the University of Tübingen in Germany who wasn't involved in the work, says that scenario⁽⁷⁾ makes sense given that every modern human society has its own creative and mythic traditions. "These depictions underline the great antiquity of narratives and storytelling," he says. "It is encouraging to find concrete evidence for narrative depictions at this early date." The findings should also help remove the outdated and mistaken notion that humanity first became fully modern in Europe, adds April Nowell, an archaeologist at the University of Victoria in Canada. "We have long known this view is no longer defensible, and the richness of this and other recent findings continues to underscore the importance of the record outside Europe."

(Adapted from *Science*, December 11, 2019)

(注 1) cognition 認知

(注 2) limestone 石灰岩

(注 3) pigment 顔料

- 問 1 資料 1 には、年代測定において注意すべき点が 2 点述べられています。それらが何かを日本語で答えなさい。
- 問 2 壁画の年代測定には「ウラン・トリウム法」が用いられていたようです。資料 2 の空欄(a)～(d)のそれぞれに、資料 1 から適当な語を選んで入れなさい。
- 問 3 下線部(1)にあるように、壁画には神話上の獣人が描かれていました。もっとも、資料 2 では、神話上の獣人ではなく、本当に狩りをしている人間であるという可能性にも触れられています。それが書かれている英文の最初の 3 単語を抜き出しなさい。
- 問 4 下線部(2)について、この能力は資料 2 ではどのように表現されていますか。英語 1 語を抜き出しなさい。
- 問 5 下線部(3)について、具体的には何年程度新しいと考えられますか。資料に即して、下の①～⑤から一つ選び、番号で答えなさい。
- ① 2,000 年 ② 4,000 年 ③ 5,000 年
④ 17,000 年 ⑤ 23,000 年
- 問 6 下線部(4)と下線部(5)の内容から、人々はある考えを抱くようになりました。その考えが書かれている箇所を資料から抜き出しなさい。
- 問 7 下線部(6)について、より詳しい情報が資料 1 には書かれています。その情報を日本語で説明しなさい。

問 8 下線部(7)の内容が資料1と資料2の両方に書かれています。それが書かれている英文の最初の3単語を、資料1と資料2のそれぞれから抜き出さない。

問 9 資料1と資料2は、何についての議論を研究者たちの意見も交えて深めていますか。それぞれ15字以内の日本語で答えなさい。

[III] Write your own opinion on the use of electric bikes after reading the following opinions. Write your answer in about 100 English words, not counting punctuation marks.

Mr. John Spence's opinion on e-bikes

My electric bike is one year old on Thursday, and it was a 75th birthday present. I have only ever been a casual cyclist, but had given my old bike away, as my creaky knees—combined with living at the top of a hill—meant that I rarely used it. But with my e-bike I feel so empowered. It is so easy to get around to do a few errands that it often seems quicker than using a car and having to find parking. If anyone is tempted by the idea, I strongly recommend giving it a try.

Ms. Liz Ormond's opinion on e-bikes

Mr. Spence's enthusiastic praise for e-bikes omits any reference to pedestrians. There is no mention that they are more dangerous than other bikes. Can he tell us what safety studies have been done in relation to pedestrians, particularly in shared space, and what discussions have been held with organisations such as the Royal National Institute of Blind People? Also, since the motors are effective enough to propel bikes loaded with shopping and children, what effect would the additional weight have in a collision with a pedestrian?

(Adapted from "Wheels of fortune: the pros and cons of e-bikes," *The Guardian*, May 19, 2020)

〔IV〕 Describe and analyze the trends that this graph shows in a report of about 100 English words, not counting punctuation marks.

次の図は、とある SNS から東京都、大阪府、香川県における「うどん」を含む書き込みを抽出し、それらが一日のうちのいつ投稿されたものであるかを、一日の全投稿を 100% として一時間ごとの時間帯別に割合で示したものです。

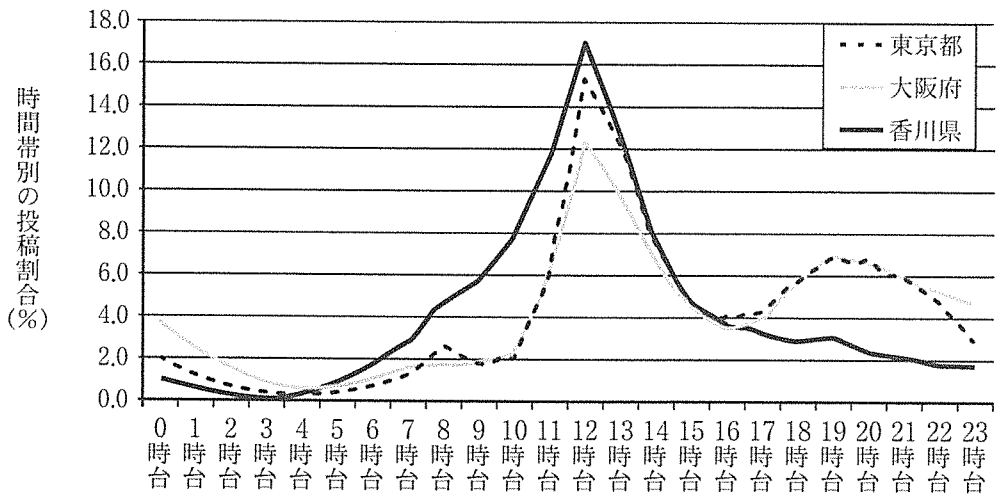


図 「うどん」を含む SNS 投稿の時間帯別の割合(東京都・大阪府・香川県)
(桐村喬 「ビッグデータから見た地域の諸文化」より)

試験時間中に机の上に置いてよいもの

- 本学受験票
- 大学入学共通テスト受験票
- 配付した問題冊子等
- 黒鉛筆(和歌, 格言等が印刷されているものは不可)
- 鉛筆キャップ
- シャープペンシル
- 消しゴム
- 鉛筆削り(電動式, 大型のもの, ナイフ類は不可)
- 定規
- コンパス
- 時計(辞書, 電卓, 端末等の機能があるものや, それらの機能の有無が判別しづらいもの, 秒針音のするもの, キッチンタイマー, 大型のものは不可)
- 眼鏡
- ハンカチ
- 目薬
- ティッシュペーパー(袋又は箱から中身だけ取り出したもの)
- 本学が試験当日に配付するフェイスシールド