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 II・英語表現 I・英語表現 II)

試験時間 120分

文学部, 教育学部, 法学部, 理学部, 医学部, 工学部

注 意 事 項

- 1. 試験開始の合図があるまで、この冊子を開いてはいけません。
- 2. **各解答紙に志望学部・受験番号を必ず記入しなさい**。 なお、解答紙には、必要事項以外は記入してはいけません。
- 3. 試験開始後、この冊子又は解答紙に落丁・乱丁及び印刷の不鮮明な箇所などがあれば、手を挙げて監督者に知らせなさい。
- 4. この冊子の白紙と余白部分は、適宜下書きに使用してもかまいません。
- 5. 解答は、必ず解答紙の指定された場所に記入しなさい。
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Ι

The darkness came unexpectedly. One second my father was walking my 7-year-old brother and my 10-year-old self past a street food-stall in New York City; the next, a shadow descended. The noise of the city stopped. A taxi pulled up nearby and parked in the middle of the road. Feet clacked on the sidewalk once and fell silent. I gripped my brother's hand and pulled him close. My dad turned around and stared at us, his fear confirming that something wasn't right—and maybe even very wrong.

But no one around us seemed worried. A man beside the fruit bins was excitedly gesturing to a girl a little younger than me. He lifted her onto a wooden box and handed her a cereal box. She held it up and peered through the bottom. Around us, everyone was looking at the sky—some wearing glasses, some shielding their eyes and staring straight at where the sun once was.

"It's an eclipse," my dad said finally. "It's a solar eclipse." Relief spread across his face.

It was 1994, and our family was falling apart. My parents were in the middle of a divorce. Though we lived in Los Angeles, my father was working in New York; we'd come to see him because we missed him terribly and, without family roots and far away, he wanted his children nearby. But the sounds and smells of the city, coupled with being out of school in early May and not having our mother or baby brother around, made us feel even more strongly that life was off its axis.

In that moment when the city suddenly stopped, we three felt that since our lives were no longer certain, perhaps the existence of the sun wasn't either. My father quickly realized what was happening, but for my brother and me those seconds before he named the phenomenon were full of terror.

Halfway across the country, a boy my age stood outside his elementary school waiting. He had almond eyes that looked brown until the light brought out their hints of green. He breathed in the empty air, still and dry. Around him, hundreds of kids shuffled their feet, expectant. As the sun was erased in New York, far to the west the moon moved halfway across its face in Colorado, where the teacher instructed the class to look down at the images inside their solar-eclipse viewers.

The boy had spent weeks waiting for this moment. In that time, his teacher had started every day with an astronomy lesson. He'd lived in Colorado for a while, but often still felt like the new kid in town, having moved from the South when his dad got a new job. For years, the mountains framing the sky were unfamiliar monsters. His parents and sister were the only things grounding him in the thin air of that elevated place. But this teacher made him

excited to learn. Made him feel like he was home. As the shadow crawled past his feet, he thought about his friends in South Carolina far to the south-east, watching the same shadow approach from a different angle.

For his family, being in a new place was itself fairly common. They'd moved five times before. He had learned his geography was not fixed. The only thing fixed was himself, his family, and his willingness to keep moving. For now, that meant looking down to look up at one celestial body briefly covering another.

But the boy, curious and impatient, didn't want to see a shadow of the shadow on the sun. So when his teacher turned away, he looked directly at the sky. For a brief second he saw light flashing from behind an emptiness, until he closed his eyes just in time to avoid blinding.

In New York, the man by the fruit stand called my brother and I over. He showed us how to look into the viewer. I looked up at the same flash the boy in Colorado saw. We were strangers on different paths through space, sharing in the certain realization that sometimes even the sun disappears.

A decade later I met that boy and, almost without realizing it, tied my orbit to his. After another decade, I married him. And a few years after that we sat in the twilight watching a lunar eclipse as birth contractions rolled through my body to bring a combination of our cells into the world. We'd realize only then, awaiting our first child, that we had both watched the moon briefly conquer the sun all those years ago.

We have no photos of that shared experience to show our son. It exists only in memory. Back then moments of anger or hope or joy weren't documented for all to see on Twitter. There is no video of our reactions, or Facebook status update from my husband expressing how disappointed he was by his eclipse viewer. There is no electronic record of my brother and I walking home with our dad, somehow comforted that even rare and strange occurrences are on their own kind of planned path. There is only this story to tell as we build a cereal box viewer to show our son the solar eclipse occurring tomorrow. For him it will be different. There will be livestreams and Instagrams for him to look through when he's grown. He'll be able to scroll through the reactions of the entire world if he wants. We'll take a thousand pictures of him on our shoulders, pointing upward.

We'll take him outside onto the street with our neighbors. He won't even be 2 years old, so he won't understand. But we'll try to get him to look up, and we'll explain that when the darkness comes it's not forever.

- (問 1) 下線部(1)を日本語に直しなさい。
- (問 2) 下線部(2)は具体的にどのようなことを意味しているか、説明しなさい。
- (問3) 下線部(3)は具体的にどのようなことを意味しているか、説明しなさい。
- (問 4) 下線部(4)は具体的にどのようなことを意味しているか、説明しなさい。
- (問 5) 下線部(5)は具体的にどのようなことを意味しているか、説明しなさい。
- (問 6) 下線部(6)の直接的な意味と比喩的な意味を <u>50 字以内で</u>説明しなさい。(ただし、句読点も字数に含む。)

П

The starting point for our discussion is the common view expressed in the saying "Necessity is the mother of invention." That is, inventions supposedly arise when a society has an unfulfilled need: some technology is widely recognized to be unsatisfactory or limiting. Prospective inventors, motivated by the expectation of money or fame, perceive the need and try to meet it. Some inventor finally comes up with a solution superior to the existing, unsatisfactory technology. Society adopts the solution if it is compatible with the society's values and other technologies.

Quite a few inventions do conform to this commonsense view of necessity as invention's mother. In 1769, James Watt invented his steam engine to solve the problem of pumping water out of British coal mines. Another instance is Eli Whitney's 1794 invention of his cotton gin* to replace laborious hand cleaning of cotton grown in the U.S. South.

A good example is the history of Thomas Edison's phonograph, the most original invention of the greatest inventor of recent times. When Edison built his first phonograph in 1877, he published an article proposing ten uses to which his invention might be put. They included preserving the last words of dying people, recording books for blind people to hear, and teaching spelling. Reproduction of music was not high on Edison's list of priorities. A few years later Edison told his assistant that his invention had no commercial value. Within another few years he changed his mind and entered business to sell phonographs—but for use as office dictating machines. When other business people created jukeboxes by arranging for a phonograph to play popular music at the drop of a coin, Edison objected to this common use of his invention, rather than serious business use. Only after about 20 years did Edison reluctantly agree that the main use of his phonograph was to record and play music.

Inventors often have to persist at trying out ideas for a long time in the absence of public demand, because early models perform too poorly to be useful. The first cameras, typewriters,

and television sets were not useful at all. That makes it difficult for an inventor to foresee whether his or her awful prototype might eventually find a use and thus take the time and expense to develop it. For each great invention that ultimately found a use, there are countless others that did not. Even inventions that meet the need for which they were initially designed may later prove more valuable at meeting unforeseen needs. While James Watt designed his steam engine to pump water from mines, it soon was supplying power to cotton mills, then propelling locomotives and boats.

Thus, the commonsense view of invention that served as our starting point reverses the usual roles of invention and need. It also overstates the importance of rare geniuses such as Watt and Edison. The "heroic theory of invention" is commonly found in history books. In reality, even for the most famous and apparently decisive modern inventions, neglected forerunners are hidden behind the bald claim "X invented Y." For instance, we are regularly told, "James Watt invented the steam engine in 1769," supposedly inspired by watching steam rise from a tea kettle. Unfortunately for this splendid fiction, Watt actually got the idea for his particular steam engine while repairing a model of Thomas Newcomen's steam engine, which Newcomen had invented 57 years earlier and of which over a hundred had been manufactured in England by the time of Watt's repair work. Newcomen's engine, in turn, followed the steam engine that the Englishman Thomas Savery patented in 1698, which followed the steam engine that the Frenchman Denis Papin designed around 1680, which in turn had its forerunners in the ideas of the Dutch scientist Christiaan Huygens and others. All this is not to deny that Watt greatly improved Newcomen's engine, just as Newcomen had greatly improved Savery's.

Would the broad pattern of world history have been altered significantly if some genius inventor had not been born at a particular place and time? The answer is clear: all recognized famous inventors have had capable <u>predecessors</u> and successors and have made their improvements at a time when society was capable of using their product.

Note

cotton gin: a machine for separating cotton from its seeds

	(B)	major inventions were the result of commonsense ideas	
	(C)	most inventors are recorded in history books	
	(D)	most inventors make technological breakthroughs	
2.	Comp	elete the sentence with <u>up to four words</u> for Underline (2).	
3.	Choos	se the best answer to complete the sentence.	
	Publi	c demand sometimes follows after an invention is created. The phonograph is a good	
	example because		
	(A)	businesses needed it for office dictation	
	(B)	it became popular within a few years	
	(C)	listening to jukeboxes, people desired to own phonographs	
	(D)	people asked Edison to create a way to record and enjoy music	
4.	What did James Watt accomplish?		
	(A)	He created the steam engine.	
	(B)	He improved the steam engine.	
	(C)	He made his steam engine in 1712.	
	(D)	He made over 100 engines in England.	
5.	Explain in your own words the meaning of the "heroic theory of invention." You may		
	write	up to 20 words in English. (Do not count punctuation such as periods and commas	
	as wo	ords.)	
6.	Whic	h word is closest in meaning to "predecessors" in Underline (3)?	
	(A)	consumers	
	(B)	developers	
	(C)	forerunners	
	(D)	inventors	

— 6 **—**

1. Choose the best answer for Underline (1) to complete the sentence.

(A) major inventions were responses to pre-existing problems

Agree or disagree with the following statement: The use of smartphones in the high school classroom is an excellent idea. Write one paragraph in English stating your opinion and three reasons to support it. You may write up to 80 words. (Do not count punctuation such as periods and commas as words.)

IV I	'he following is an interview with a surfer. Write the most appropriate word for each
bla	nk using the first letter provided. A sample answer (*) is given on the answer sheet.
Hos	At a beach about 25 miles south of San Francisco, when conditions are just right, you can find ocean w so tall they block out the horizon. Surfers call this place Mavericks. In 1999, Sarah Gerhardt became the first woman to surf Mavericks. That same year, it became the site of what has turned into one of surfing's most prestigious events—Titans of Mavericks. But until now, no woman had e surfed in that competition. One woman who will be there for the first time this year is Sarah Gerhardt. Let's listen to her story.
Sar	times out in the water I really got tossed around, and I loved it. In my high school of almost 2,000 people, I was the only girl to be attempting surfing, but I just wanted to be in the ocean as much as p My dad wasn't around, so it was just my mom, who was in a wheelchair. She was a quadriplegic with no feeling in her body
	from her neck down. We s a bed so that I could get up in the middle of the night if she needed anything. And we always got up early. We had our special m routine. And I'd get her out of bed, get her ready and get her bundled up as much as I could because she would go in her wheelchair and go through the cold
	and w me surf. It seemed like she was experiencing it herself through me, which was so cool. I had been already s for about five years, and I decided to experience big waves. I'd seen the men doing it, but I didn't k what to do, and I didn't have a coach. I just sort of jumped in with both feet. I really got trashed, and I loved i
	on bigger surf. The first wave at Mavericks was pretty amazing. This wave just stood up really tall. It was sort of like when you r a roller coaster and you have that tension of waiting as the roller coaster's, like, going up—chunk, chunk, chunk, chunk—you
,*	know, that anticipation—and then getting to the t My brain's freaking out, going, don't go. And then, when that roller coaster goes zooming down, all the sudden you're g 30 miles an hour, heading into oblivion. And when I kicked out, I was like, wow, I can't believe it. That was so amazing; I want to do that a! I just wish my mom—you know, she's no longer with us, but I just know that my mom would have loved to have b in the water. And we spread her

SOURCES

