英

掘

注 意

- 1. 問題は12ページである。
- 2. 解答用紙に氏名・受験番号を忘れずに記入すること。(ただし、マーク・シートにはあらかじめ受験番号がプリントされている。)
- 3. 解答はすべて解答用紙に記入すること。
- 4. 問題冊子の余白等は適宜利用してよいが、どのページも切り離してはいけない。
- 5. 解答用紙は必ず提出のこと。この問題冊子は提出する必要はない。

マーク・シート記入上の注意

- 1. 解答用紙(その1)はマーク・シートになっている。HBの黒鉛筆または シャープペンシルを用いて記入すること。
- 2. 解答用紙にあらかじめプリントされた受験番号を確認すること。
- 3. 解答する記号・番号の を塗りつぶしなさい。○で囲んだり×をつけたりしてはいけない。

解答記入例(解答が 1 のとき)



- 4. 一度記入したマークを消す場合は、消しゴムでよく消すこと。※をつけても 消したことにならない。
- 5. 解答用紙をよごしたり、折り曲げたりしないこと。

1

After decades of failures and misunderstandings, scientists have solved a cosmic¹ riddle — what happens to the tons of dust particles that hit the Earth every day but seldom if ever get discovered in the places that humans know best, like buildings and parking lots, sidewalks and park benches. The answer? Nothing. Look harder. The tiny flecks are everywhere. An international team found that rooftops and other cityscapes readily collect the extraterrestrial² dust in ways that can ease its identification, contrary to scientists who long dismissed the idea as little more than an urban myth.

Remarkably, the leader of the discovery team and co-author of a recent paper in the journal *Geology*, turns out to be a gifted amateur who devoted himself to disproving the skeptics. A noted jazz musician in Norway, he rearranged his life to include eight long years of extraterrestrial detective work. His hunt has now produced a significant discovery, a colorful book for lay³ readers and what scientists call a portrait gallery of alien visitors. "I hope and believe this will start something," the musician, Jon Larsen, said in an interview. His book, *In Search of Stardust: Amazing Micro-Meteorites and Their Terrestrial Imposters*, due out in August, details the secret of his extraordinarily successful hunts. Its 150 pages and 1,500 photos taken through a microscope tell how Mr. Larsen taught himself to distinguish cosmic dust from regular earthly dust.

As his book puts it, "To pick out one extraterrestrial particle among billions of others requires knowledge both about what to look for and what to disregard." The diminutive flecks to which Mr. Larsen, 58, has devoted himself by the diminutive flecks to which Mr. Larsen, 58, has devoted himself by the distribution of the flecks to which Mr. Larsen, 58, has devoted himself by the distribution of the flecks to which Mr. Larsen, 58, has devoted himself by the flecks to which Mr. Larsen, 58, has devoted himsel

¹ cosmic - of the universe (but apart from earth.)

² extraterrestrial - outside of earth, alien, otherworldly.

³ lay - untrained, unprofessional.

represent the smallest parts of a cosmic downpour that has lashed the Earth for billions of years. Careful observers of the night sky are familiar with shooting stars—speeding bits of extraterrestrial rock that plunge through the Earth's atmosphere, often burning up completely. The biggest can strike the ground, some forcefully enough to dig craters⁴.

Scientists say most cosmic material is remarkably small—barely the width of a human hair. Known as micrometeorites, they rain down on the planet more or less continuously but have proved remarkably hard to find. Some bits are so small and lightweight that they drift down to the Earth's surface without melting. The dust consists of tiny remnants from the solar system's birth, including debris from the lumps of dirty ice known as comets⁵ and from ages of smashups among planets and the big rocks known as asteroids⁶. While most of the particles are interplanetary in nature, some contain grains of matter from outside the solar system, or actual stardust. Their diversity makes them excellent windows on the cosmos.

Donald E. Brownlee, an astronomer at the University of Washington, called Mr. Larsen a true citizen scientist whose work will aid the global hunt for the tiny specks. "Your car is covered with cosmic dust," Dr. Brownlee said. "We inhale this stuff. We eat it every time we eat lettuce. But normally, it's incredibly difficult to find." As Mr. Larsen tells the story, he was an enthusiastic rock collector as a child but did so well as a musician that he set (i) aside his early scientific ambitions. Then, in 2009, at a country house outside Oslo, he was cleaning an outdoor table when a bright speck caught his eye. "It was blinking in the sunlight," he recalled. He touched the fleck. "It was angular in some way, kind of metallic but so small—a tiny dot." Intrigued, Mr.

⁴ craters - explosion holes in (earth's) surface.

⁵ comets - astronomical objects with long tail.

⁶ asteroids - rocky objects orbiting the sun.

Larsen suspected it was a cosmic visitor and began to look for more. He collected dust samples from Oslo and cities around the globe. He collected hundreds of pounds of dreck—sludge from drains, gutters and downspouts, the dregs of civilization that most people try to avoid. "Still, I didn't find a single micrometeorite," he recalled. "It was very frustrating."

Mr. Larsen then changed tactics. Rather than looking exclusively for cosmic dust, he taught himself how to classify the dozens of different kinds of earthly contaminants, starting a process of elimination that slowly narrowed the candidates and raised the chances that some tiny fraction of the urban debris might turn out to belong to the cosmos. The breakthrough came two years ago. In London, Dr. Genge studied one of the gathered particles from Norway, and confirmed that it was indeed a traveler from outer space. Mr. Larsen quickly identified hundreds more. "Once I knew what to look for, I found them everywhere," he said.

(1) 下線部(A)を日本語に訳しなさい。(解答用紙その2を使用すること)

(2) 次の(a)~(d)に続く最も適当な語句を下	の①~④の中からそれぞれ一つずつ漫
び、解答欄 1 ~ 4 にその番号をマー	クしなさい。(解答用紙その1を使用
すること)	
(a) Mr. Larsen's "real" job is in	<u> </u>
① the arts ② religion	3 the military 4 education
(b) Cosmic dust hits the earth 2	
① in winter ② in spring	3 continuously 4 in fall
(c) Mr. Larsen first noticed stardust wh	nen he was3
① travelling in space	② wiping a table
3 walking his dog	4 cleaning his roof

⁷ contaminants - impurities.

		•				
						•
(d) Accor	ding to the as	stronomer, it is	very	likely that mi	crom	eteorites are
in your	4 .					
① sou	2	ice cream	3	coffee	4	salad
	•					•
(3) 下線部(a)~(m)の意味に	最も近い単語を	下の(①~④の中から	それ-	ぞれ一つずつ
選び、解答	:欄 5 ~ 17	にその番号をマ	マーク	しなさい。(解	答用網	紙その1を使
用すること	:)			•		
(a) riddle	5	•				
① song	g 2	mystery	3	present	4	joy
(b) seldon	n 6					
① basi	cally ②	truly	3	rarely	4	previously
(c) skepti	cs 7		•			
① dou	bters 2	cleaners	3	trainers	4	teachers
(d) disting	guish 8					
① sepa	arate ②	disturb	3	destroy	4).	surpass
(e) disreg	ard 9					
① reco	ord 2	focus	3	find	4	ignore
(f) diminu	ıtive 10	•		-		
① enoi	mous 2	tiny	3	fair	4	minor
(g) plunge	e 11					
① dive	2	shake	3	correct	4	offer
(h) remna	nts 12			•		
① pro	nises ②	numbers	3	residues	4	rules
(i) divers	ity 13					
① clari	ty ②	value	3	variety	4	concern
(j) set asi	de 14					
(1) post	poned (2)	repeated	(3)	peaked	(4)	allowed

(k) tactics 15 ① clothes 2 methods 4 beliefs tools (1) fraction 16 4 portion 1 motion 2 lotion 3 commotion (m) breakthrough 17 ② innovation 3 revision 4 division ① decision

2	次の(1)~(5)の英文の下線部 18 ~ 2	2 に最も近い意味の語句を下の①~④の
	- 中からそれぞれ一つずつ選び, その番-	号をマークしなさい。(解答用紙その1を
	使用すること)	
		1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 - 1 -
	(1) The politician had to resign of hi	s own accord, as he received a bribe.
ō.	18	
	① ashamedly ② definitely	3 passively 4 voluntarily
	(2) The soccer player has promised to	o make up for her disappointing start to
	the season. 19	
	① aim ② compensate	③ provide .④ stand
	(3) Modern society should make e	every effort to do away with racial
	discrimination. 20	
	① abolish ② evade	3 enhance 4 withstand
	(4) New construction is <u>under way</u> for	the East Highway extension.
	① hitting setbacks	② behind schedule
	③ in progress	④ near completion
	(5) Although the supermarket has los	t some customers recently, closing down
	is out of the question. 22	s to start
	① best for everyone	② not possible
	3 quite a mystery	④ open for debate

3 次の(1)~(4)の各組の英文が同じ意味になるように下線部 23 ~ 30 に入るべ					
 き最も適当な単語を下の〈単語リスト〉①~®から1つずつ選び、その番号をマー					
クしなさい。但し、同じ単語は1度しか使用してはならない。(解答用紙その 1					
を使用すること)					
(1) Mind your own business.					
Please do not 23 in my affairs.					
It is no 24 of yours.					
(2) The task is beyond the candidate's ability.					
He is not 25 to the task.					
His ability falls 26 of the task.					
•					
(3) Their aunt Mary is an enthusiastic cook.					
She has a strong 27 for cooking.					
She takes a great deal of 28 in cooking.					
(4) We are awfully sorry to have to leave so early.					
If 29 we could stay longer					
It is indeed a 30 we cannot stay longer.					
· · · · · · · · · · · · · · · · · · ·					
〈単語リスト〉					
① meddle ② pity ③ fondness ④ up					
(5) pleasure (6) concern (7) only (8) short					

5

A Japanese airline has apologized to a disabled rights activist, who is partly paralyzed⁸, after it tried to <u>prevent</u> him from boarding a flight at a <u>remote</u> airport, prompting him to crawl up a portable boarding staircase to reach the plane's cabin. The airline, Vanilla Air, a budget <u>affiliate</u> of Japan's largest carrier, All Nippon Airways, said it offered the apology in response to the incident. The episode drew public attention—including <u>outrage</u> against the airline, but also criticism of the activist—after reports surfaced in the Japanese news media.

The activist, Hideto Kijima, said Vanilla Air staff initially told him he would not be allowed to board the aircraft, which was flying from a small airport on the southern island of Amami to Mr. Kijima's home in Osaka, because it lacked wheelchair-accessible boarding ramps or elevators. Mr. Kijima was paralyzed from the waist down while playing rugby as a teenager and now uses a wheelchair. Angry at the airline's decision, and worried that he would be stuck on the island, Mr. Kijima decided to board anyway, he wrote on his blog. He was visiting the island with a group of friends, and they offered to carry him up the short stairway from the tarmac, he said. But the airline told them that would violate safety regulations. So he started crawling. "I sat down on the stairs and started climbing up one at a time," he wrote. "The staff told me to stop but I ignored them. How else was I supposed to get back to Osaka?" He was allowed to take a seat once he reached the top, he said.

Mr. Kijima has a long history of campaigning for access to public spaces for the disabled. He challenged All Nippon Airways after a similar incident in 2002, in which he was told he could not board a flight because the gate lacked

⁸ paralyzed - unable to move or feel sensation in a part of the body

wheelchair access. In a telephone interview, Mr. Kijima said he had traveled to dozens of countries and, except in Japan, had never been told he could not board a plane. "They always find a way," he said.

A spokesman for Vanilla Air, Akihiro Ishikawa, said the airline had ordered an electric wheelchair lift for its planes on Amami after the incident. The lift went into service on Thursday, Mr. Ishikawa said.

- (1) 下線部(B)を日本語に訳しなさい。(解答用紙その2を使用すること)
- (2) 次の1)~6)の各文について、本文の内容と一致するものには①を、一致しないものには②を選び、解答欄 $\boxed{41}$ ~ $\boxed{46}$ にその番号をマークしなさい。(解答用紙その1を使用すること)
 - 1) Mr. Kijima rarely travels by air due to his condition. 41
 - 2) Mr. Kijima's friends carried him down from the plane cabin to the tarmac. 42
 - 3) The flight Mr. Kijima was to board left Osaka in the early morning hours. 43
 - 4) Vanilla Air is a low-cost subsidiary airline with All Nippon Airways. 4
 - 5) Many people criticized Mr. Kijima on social media for violating basic human rights. 45

- 6) The airline has since made an effort to improve the situation for customers such as Mr. Kijima. 46
- (3) 下線部(a)~(i)の意味に最も近い語句を下の①~④の中からそれぞれ一つずつ 選び、解答欄 47 ~ 55 にその番号をマークしなさい。(解答用紙その 1 を使 用すること)

(a) prevent 47				*		
① allow	2	preserve	3	pronounce	4	stop
(b) remote 48						
① fluent	2	pleasant	3	distant	4	current
(c) affiliate 49						
① stylist	2	competitor	3	follower	4	branch
(d) outrage 50						
① anger	2	acceptance	3	allowance	4	ability
(e) initially 51						
① lastly	2	originally	3	carefully	4	quietly
(f) tarmac 52						
① backstage	2	sidewalk	3	aisle	4	runway
(g) violate 53						
① bring	2	break	3	create	4	offer
(h) distressing 54				•		
① inspiring	2	enlightening	3	upsetting	4	playing
(i) nuisance 55			•			
① troublesome	2	convenient	3	practical	4	imperfect

(4) 次の質問について、下の注意点に留意し、50 語以内(ただし、句読点は除く)の単語数の英語で答えなさい。(解答用紙その2を使用すること)

What responsibility do airlines (and other companies in Japan) have regarding customers with physical disabilities?

Be certain to <u>tell us your opinion</u> and use <u>at least one</u> example not from the article.





