2016 年 度 入 学 試 験 問 題

(試験時間 12:55~14:25 90分)

- 1. 解答用紙には、記述解答用紙とマーク解答用紙の2種類がありますので注意してください。
- 2. 解答は、必ず解答欄に記入およびマークしてください。解答欄以外への記入およびマークは無効となりますので注意してください。
- 3. 解答は、**HB**の鉛筆またはシャープペンシルを使用し、訂正する場合は、プラスチック製の消しゴムを使用してください。特に、マーク解答用紙には鉛筆のあとや消しくずを残さないでください。
- 4. 解答用紙を折り曲げたり、汚したりしないでください。また、マーク解答用紙を 記述解答用紙の下敷きに使用しないでください。
- 5. 解答用紙には、必ず受験番号と氏名を記入およびマークしてください。
- 6. マーク解答用紙への受験番号の記入およびマークは、コンピュータ処理上非常に 重要なので、誤記のないよう特に注意してください。
- 7. 満点が150点となる配点表示になっていますが、大学入試センター試験利用入試 併用方式の満点は100点となります。

I 次の各英文の下線部に 選び、その番号をマークが				40	中から一つずつ		
(1) Many visitors to No	ew York are <u>eag</u>	er to	go to Broadwa	y pl	ays.		
			lucky to go				
3 enthusiastic about	4	afraid to go					
(2) I was <u>terrified</u> by so	omething that I s	aw 1	ast night.				
l extremely frighter	2	truly irritated					
3 somewhat puzzled			calmed down				
(3) He could not conceal 2		gs wl	nen we spoke. confess	4	hide		
(4) John is very <u>rigid</u> in	n his beliefs.						
1 indirect 2	inflexible	3	indifferent	4	inconsistent		
(5) We now call on eve	ryone here to co	ne t	ogether for the 1	neet	ing.		
1 ask 2		3		4	phone		
(6) 今, 伯父は年中フロ!	リダ州に住んでいる	, 5					
Now, my uncle lives	in Florida () the year.				
1 in 2	among	3	throughout	4	whole		

(7)	会議に参加した多	くの	株主のうち,ほん	のオ	っずかしかパーテ	イに	来なかった。
	Of the many sha	reho	olders who atter	ided	the meeting, or	aly a	a ()
C	ame to the party.						
1	few	2	little	3	small	4	scarce
(8)	彼女は家から飛び	出て	きて,「一体どう	した	んですか」と叫ん	だ。	
	She ran out of th	e ho	ouse and shouted	l, "V	Vhat on earth is	() on?"
1	doing	2	taking	3	happening	4	going
(9)	その新商品が、即	完売	になるのも驚くこ	とて	ではなかった。		
	It came as no su	rpri	se that the new	pro	duct was sold o	ut i	n ()
ti	me at all.						
1	any	2	no	3	instant	4	none
(10)	その話題について	は、	もう話し合わない	ここと	とに決めた。		
	() tha	t toj	pic, we decided r	not 1	to discuss it any	moi	re.
1	For regard	2	Regarding	3	Regarded to	4	As regarded
(11)	メリッサは、仕事	を速	く、しかも正確に	出	来る。		
	Melissa is able to) WC	ork quickly and	().		
1	accurately	2	generously	3	courageously	4	gradually
(12)	割に合わない仕事	など	ない。				
	There is no job t	hat	does not () off.		
]	. make	2	show	3	pay	4	profit
(13)	1990 年代の 3 つの	ヒッ	・ト曲のあと,その	7)ノヾ	ンドの消息はわか	らな	こかった。
	After three hit s	ongs	s in the 1990s, t	he t	and was never	() from
а	gain.						
]	seen	2	heard	3	messaged	4	known

(14)	疲れている時、集	中す	るのは非常に難し	وفار	i		
	People ()	it extremely di	ffic	ult to concentra	ite	when they are
į	tired.						
	I make	2	know	3	have	4	find
(15)	最近の世界的な金	融危	1機は、おもに銀行	řΙC.	よるいい加減な貸	し付	けによって、引
	き起こされた。						
	The recent glob	oal	financial crisis	wa	s largely cause	d b	y ()
1	ending by banks.						
	1 deliberate	2	irresponsible	3	guilty	4	conservative
	欠の各組の英文がほ						
1	~4の中から一つず	つ選	び、その番号をマ	> /	ク解答用紙にマー:	クし	なさい。(10点)
(16)	He claims he wa						
	He claims he did			do	() the	e cr	ime.
	1 at	2	to	3	on	4	with
(1 th)	TN	1 1	* *,* **				
(11)	The police charg			_	43 3.		
	He was accused					,	
	l for	2	with	3	of	4	to
(18)	We could see tha	t ov	er intentions had	haa	omo olgan during	~ +h	a maating
(10)	The meeting (·		
	l enabled	2	mađe	5	let	4	had
(19)	She is a great far	n of	the actor Kon W	Ĭnto	naha		
(10)	Ken Watanabe is						
		: au					
1	l dislikes	2 an	studies	3	copies	4	admires

(20) They have been arguing about the boundary line for years.

They have had a () about the boundary line for years.

1 contract 2 dispute 3 treaty 4 feeling

- IV 次の各日本文とほぼ同じ意味になるように、かっこ内の語句を並べ替えて英文を完成させるとき、かっこの中で3番目と5番目にくるものを選び、その番号をマーク解答用紙にマークしなさい。(20点)
 - ②1) オートバイに乗る時、ヘルメットをかぶらないのは法律違反です。
 It (1 ride 2 the 3 is 4 law 5 to 6 against) a motorcycle without wearing a helmet.
 - (22) 10 分後に会議は始まる予定です。

The meeting (1 in 2 begin 3 scheduled 4 to 5 ten 6 is) minutes.

- (23) ジャックは、平均的な長さの小説を 5 時間以内で読むことができる。

 Jack can (1 a 2 read 3 average 4 of 5 length 6 novel)

 within five hours.
- (24) 警察は、その事故の責任者の身元を特定できていない。The police have been unable (1 establish 2 of 3 the identity 4 responsible 5 to 6 the person) for the accident.
- (25) その新入社員は、自分が何を期待されているか気づいていないようである。
 The new employee(1 of 2 expect 3 what 4 seems 5 we 6 unaware) of him.

Ⅴ 次の各組の会話文において、空所に入るもっとも適切なものを1~4の中から一つ ずつ選び、その番号をマーク解答用紙にマークしなさい。(20点) (26)A: Sally, are you going to the party tonight at Jane's house? B: I didn't know she was giving a party! A: Oh, I thought for sure that you had been invited. B: No. (A: I'm terribly sorry. I hope I didn't make you feel bad. B: No, it's fine. I don't like parties anyway. I received my invitation late this is the first I've heard of it I replied that I wouldn't be attending this is upsetting because I always look forward to parties (27)A: Hey Joe, have you seen anything good on TV recently? B: No, but I downloaded and watched two great suspense crime series. A: Ha ha ha. ()? B: No, not when you pay for them. Anyway, check out True Detective and Happy Valley. A: OK, I will. Haven't you heard that joke before

- 2 Why not just watch them on TV
- 3 Why are you so interested in crime dramas
- 4 Isn't downloading TV programs from the Internet illegal

- A: What are you doing?
- B: I'm house-hunting online.
- A: Now, there's only one important issue when you're looking for a house to buy.
- B: What's that?
- A: Price.
- B: That's not the only important thing. I'd say space, safety, location, and noise levels are also important.
- A: Well, () without spending a tremendous amount of money, so you're going to have to compromise on some of those things.
 - 1 you can't search my house
 - 2 you can't get the perfect place
 - 3 you can find a place of your own
 - 4 you can give me some advice about buying a house

(29)

- A: Why do you want to work here? Are you interested in software development?
- B: Yes, I've always been interested in this field. Also, I've read a lot about this company, so I'm somewhat familiar with your business culture, strategy, and major products.
- A: ()?
- B: I was hoping I could get my first opportunity here.
- A: I see.
 - 1 Do you have any business experience
 - 2 What is your major in college
 - 3 Do you have any complaints
 - 4 What will you do if you leave this job

- A: Linda, I'd like you to make a presentation about our new discovery at the conference in Boston next Monday afternoon.
- B: I'd like to, Mr. Grimes, but on Monday afternoon I have to meet with clients here in Los Angeles. Don't you remember?
- A: Yes, of course I do. But the presentation is more important and I'm going to ask Tony to meet with the clients.
- B: Tony? He's only been here about two weeks.
- A: I know, but he'll be fine. Besides, everybody else will be busy then.
- B: Even Laurie?
- A: Yes, Laurie ().
- B: I see. In that case, I guess we'll just have to hope that Tony is up to the task.
- A: Don't worry. I'm sure he is.
 - l will be available in the afternoon
 - 2 doesn't have any other appointments
 - 3 can meet with the clients instead of you
 - 4 has a meeting downtown that will last all day long

VI 次の英文を読み、以下の設問に答えなさい(* 印の語または語句については、英文 の後の注釈を参照しなさい)。(30点)

The brain is the most complicated organ in the known universe. It is estimated that the brain has one hundred billion nerve cells and more connections in it than there are stars in the universe. (a) the brain consists of only about two percent of your body's weight, it uses about 25 percent of the calories you consume. If you take a piece of brain tissue the size of a grain of sand, it contains a hundred thousand nerve cells and a billion connections all communicating with one another. If you are not mentally active, the brain loses an average of 85,000 brain cells a day, or one per second. Information in the brain travels at the speed of 268 miles per hour, unless of course you are drunk, which really slows things down. The brain is the organ of loving, learning, behaving, intelligence, personality, character, belief, and knowing.

Neurosurgeon Katrina Firlik describes the brain as being like tofu, the soft kind. Your soft tofu-like brain is contained in a really hard skull that has many *ridges. These ridges can damage the brain during trauma, so why would you ever let children hit soccer balls with their heads, play tackle football (even with helmets), skateboard, or snowboard or ski without helmets? Sports like boxing, football and motocross are simply not (b) the risk. The brain loves physical activity, and it is better to think about safer sports such as tennis, table tennis, *track and field (although not *pole vaulting), and basketball.

A 2007 study by John Adams and colleagues at the University of Cincinnati College of Medicine found that hitting a soccer ball with one's head is linked to long-term brain injury and memory problems later in life. Researchers found evidence of reduced *gray matter in the brains of male college soccer players, compared with young men who had never played.

A person with a brain injury often suffers later from emotional, behavioral, or memory problems that may lead him to a psychiatrist or psychologist, who

typically never looks at the brain. As a result, problems that are physically based are often considered psychological. If you never look at the brain, you will likely miss what many researchers have called the silent epidemic. There are two million reported new brain injury cases every year, and millions of others that go unnoticed.

When I first started imaging work, I saw a lot of brain injury patterns on scans. When I asked patients about a history of head injuries, they denied them. When I pressed, a whole new world opened up. I had to ask them three, four, even ten times. Many people forgot, or they did not realize, that they had had a serious brain injury. You would be amazed by how many people, after repeatedly saying "no" to this question, suddenly got an "aha" look on their face and said, "Why yes, I fell out of a second-story window at age seven." Or they told us that they had gone through the windshield of a car in an accident, had had *concussions playing football or soccer, or had fallen down a flight of stairs. Not all brain injuries, even serious ones, will cause damage — it depends on one's genes. Moreover, the brain is protected by the *cerebrospinal fluid that bathes it. Still, damage can occur more than most know.

Blood is also important to the brain. Although the brain accounts for only two percent of the body's weight, it uses 20 percent of the body's blood flow and oxygen supply. Blood flow to the brain is rarely thought of as important by the general public, unless a disaster strikes, such as a *stroke or any other serious condition. Yet good blood flow is absolutely essential to the brain's health. This is one reason I favor brain *SPECT as our primary imaging method. It specifically looks at blood flow patterns in the brain.

Blood brings oxygen, sugar, vitamins, and other nutrients to the brain and takes away carbon dioxide and other *toxic waste products. Anything that limits blood flow makes all of your body's organs older prematurely. Consider the skin of smokers. Most people can tell if someone is a smoker by looking at his or her skin. A smoker's skin is more likely to be deeply wrinkled and even perhaps

-- 9 --

tinged with a yellow or gray color. Why? Nicotine in cigarettes restricts blood flow to every organ in the body, including the skin and the brain. (c) of vital nutrients, a smoker's body will look older and the brain will think slower than it should.

Unless you actively do something to change it, blood flow throughout your body decreases over time, especially to the brain. Blood vessels become weak and blood pressure rises, limiting blood supply. To keep your heart and mind young, it is essential to understand the factors that limit blood flow and eliminate them. Improving blood flow is the fountain of youth.

To increase healthy blood flow throughout your body and brain, you need to get enough sleep; drink plenty of water; stop any medications or bad habits (like smoking) that may be limiting blood flow; and consider taking supplements such as fish oil, gingko, ginseng, and L-arginine that increase blood flow. Probably the most important thing to do is to (d) any toxic waste products and to exercise almost every day.

*ridges:隆起 *track and field:陸上競技 *pole vaulting:棒高跳び

*gray matter:灰白質 *concussions:脳しんとう

*cerebrospinal fluid:脳脊髄液 *stroke:脳卒中

*SPECT:単一光子放射形コンピュータ断層撮影法

*toxic waste products:老廃物

設問A

本文の(a)~(d)の空所に入るものとして、もっとも適切なものを各組の1~4の中から一つずつ選び、その番号をマーク解答用紙にマークしなさい。

(31) (a) 1 Therefore 2 Even though 3 As though 4 Unless

(32) (b) 1 paid 2 given 3 worth 4 value

- (33) (c) 1 Deprived 2 Full 3 Ignorant 4 Consisting
- (34) (d) 1 remain 2 repair 3 recover 4 remove

設問B

次の各組の英文の中で、本文の内容に照らしてもっとも適切なものを、各組の 1~4の中から一つずつ選び、その番号をマーク解答用紙にマークしなさい。

(35)

- 1 Hitting a soccer ball with your head is not a danger to your brain.
- 2 Tennis, pole vaulting and basketball are safe for your brain because they do not require helmets.
- 3 The more you play soccer, the more likely you are to have memory problems in the future.
- 4 The brains of male college soccer players are much healthier than those of young men who have no experience playing soccer.

(36)

- 1 We get two million reports of new brain injuries every year, but choose to ignore millions of others.
- 2 It is suggested that the brains of people with emotional, behavioral, or memory problems be checked for damage.
- 3 Looking at behavior rather than brain images is more likely to lead to the discovery of brain injuries.
- 4 The author does not believe in looking at the physical condition of a patient's brain.

(37)

- 1 The "aha" mentioned in the fifth paragraph is an expression of realization.
- 2 The "aha" mentioned in the fifth paragraph is an expression of regret.
- 3 The "aha" mentioned in the fifth paragraph is an expression of apology.
- 4 The "aha" mentioned in the fifth paragraph is an expression of joy.

設間C

(38) 下線部(A)について、them の指す内容を明確にしながら全文を和訳しなさい。和 訳文は記述解答用紙に記入しなさい。

VII 次の英文を読み、以下の設問に答えなさい(* 印の語または語句については、英文の後の注釈を参照しなさい)。(30点)

- [I] The Earth has always been our one and only home. This is where we are all born, grow up and finally die, with each generation following the next. The problem is that if we do not leave the Earth, eventually we will become extinct, and all that we have achieved, all of our knowledge, all of our culture, will be lost forever as well.
- [II] How long do we have before our species goes the same way as the dinosaurs? The answer is not at all clear. It is estimated that the Sun will continue to provide a stable supply of light and warmth for several billion years. That is a very long way off into the future. There are other changes that may occur far more quickly that make life impossible here for our species. For example, massive *volcanic eruptions could create a very different climate on Earth relatively soon. The *timescale for such changes ranges from thousands to millions of years. We may find that our time has run out here almost overnight. If a large *asteroid or a gamma ray burst hits the Earth, if the population increases much more, or if environmental conditions significantly change, it will be game over for our species.

[III] Have you seen the movie *Interstellar? Released in late 2014, the movie portrays a very possible scenario of widespread agricultural disease resulting in mass starvation as the danger facing mankind. A repeated line in the film is "We were born on Earth, but we weren't meant to die here," and the story tells of our efforts to find a new home in another galaxy.

[IV] Leaving the Earth seems like madness. Our species has evolved to perfectly match the conditions here on Earth. Our bodies can breathe only the mixture of gasses that exists in the Earth's atmosphere, can only function properly when living in an environment where gravity and atmospheric pressure are at the same levels found at or near sea level on Earth, and can only operate within a narrow temperature range. The Earth's magnetic field also protects us from the deadly effects of cosmic rays streaming from the Sun and other stars. Without it, our bodies would quickly weaken and die. It seems to make no sense to leave the Earth. For humans, the Earth has been a place of safety, sheltering us from the dangers of the universe, but if we want our species to continue, we must leave. [V] How can we possibly leave our home? To be clear, it does not mean all of us, or tomorrow. It took 500,000 people working for eight years to put just 12 people on the Moon. Leaving the Earth and finding a new home may be the greatest challenge we will undertake. It will be extremely difficult, enormously expensive and extraordinarily dangerous. It will take many years of planning, It will require the best and brightest minds and preparation and work. international cooperation unparalleled in human history. It can only be done if the economic cost is ignored. We will also need to develop a great many new technologies and skills. Despite the enormous challenge, however, leaving the Earth is not impossible. Let's not forget humans went from flying the first primitive airplane to landing on the Moon in less than 70 years.

[VI] Where should we go: the Moon, Mars, Europa, the nearest star system, or somewhere else that looks promising? Actually, it may not be a case of choosing one, but choosing all of these destinations and getting to them step by step. We

have been to the Moon already and know that it is very inhospitable. It's a lifeless ball of rock, but it is close and would make a good jumping-off point for longer journeys. Also, in case a giant asteroid heads for earth, *peopling the Moon and creating an *archive of our species there would be a good first step. Next is the planet Mars. There is almost certainly water there: a key ingredient for life. Although humans could not survive there without space suits now, it's possible that the planet could be altered to create a livable environment for humans over time. Unfortunately, that might take up to 10,000 years. Further away there is Europa, one of the planet Jupiter's many moons. Beneath the ice of Europa, scientists believe that there is an ocean of water, and although it's inhospitable at present, in the future we might be able to live there somehow.

[VII] What we're really looking for, however, is a new home somewhere in the "Goldilocks zone." The name comes from the children's story, Goldilocks and the Three Bears. In the story, a girl named Goldilocks enters the empty home of a family of bears and finds three bowls of *porridge. The first bowl she tries is too hot, the second is too cold, but the third is just right, so she eats it all. Scientists use the term Goldilocks zone to name the area around a star that is not too hot and not too cold for water to exist in liquid form and which is, therefore, perfect for human life. To find a new home somewhere in a Goldilocks zone may require us to leave our solar system and travel to another star.

[VIII] The nearest star system is Alpha Centauri, 4.37 light years, or 41.5 trillion kilometers, away. Unfortunately, no planets suitable for life have yet been found there. We may have to travel much further and for longer, unless we can journey close to or faster than the speed of light. Einstein believed that going at or beyond the speed of light is impossible, but some scientists now challenge this. Let's hope they are right and Einstein was wrong because otherwise travel between stars would be extremely lonely and boring.

[IX] Interstellar has been praised for being a science-fiction movie that used the actual laws of physics as a basis for the events and situations in the movie.

Although the scientific basis for the journey in the movie stretched those laws to the limit of what might be possible, the true strength of the film is how it depicts overcoming the emotional rather than the physical pressures on the space adventurers and the families that they leave behind. This is of crucial importance because it is the strength of the human spirit to fight, not only for personal survival, but also for the well-being of the ones we love, that is going to be the key factor in determining whether we manage to avoid dying here on Earth, where we were born.

*volcanic eruptions:噴火 *timescale:時間の尺度 *asteroid:小惑星

*Interstellar: 邦題『インターステラー』 *peopling:~に人を住まわせること

*archive:保管所 *porridge:ポリッジ (おかゆのような食べ物)

設問A

以下の(39)~(43)に示された段落の内容に照らして、もっとも適切なものを1~4の中から一つずつ選び、その番号をマーク解答用紙にマークしなさい。

(39) 第Ⅰ段落から第Ⅱ段落

- 1 It is certain that people can continue to live on this planet for a very long time.
- 2 There are several reasons why our species may not be able to continue living on Earth.
- 3 Our species is destined to follow the same fate as the dinosaurs.
- 4 Even if we become extinct, our culture and achievements will live on into the future.

(40) 第III段落から第IV段落

- 1 It is very difficult to imagine the problems that humans face on Earth in the movie *Interstellar*.
- 2 Because of the current conditions on Earth, we all eventually weaken and die.
- 3 It is completely mad for people to want to leave the Earth.
- 4 Despite the safety that the Earth continues to provide, we must leave if our species is to survive.

(41) 第V段落から第VI段落

- Although 500,000 people wanted to go to the Moon, after eight years only 12 people got there.
- The Moon, Mars and Europa are all possible destinations, but will always be inhospitable.
- 3 Although leaving the Earth and finding a new home will be extremely difficult, it is achievable.
- The best plan is to go to many different places, but it may take up to 10,000 years to get to any of them.

(42) 第VII段落から第VIII段落

- 1 A feature of a children's story is used by scientists to describe the perfect human environment in space.
- 2 Goldilocks is the story of a girl and three bears who lived in just the right place in space.
- 3 It has recently been discovered that Einstein was wrong about the speed of light.
- 4 We now know that travelling to Alpha Centauri would be a waste of time and resources.

(43) 第IX段落

- 1 Although the scientific basis of *Interstellar* is ridiculous, the human drama is strong.
- 2 The journey to another galaxy that is depicted in *Interstellar* will always be scientifically impossible.
- 3 If you watch *Interstellar*, you will probably find that the scientific aspects of the film are more powerful than the emotional ones.
- 4 Interstellar depicts the emotional strength of space travelers and their families.

設問B

(4) 下線部(A)を和訳し、和訳文を記述解答用紙に記入しなさい。

VⅢ 次の和文を英訳し、英訳文を記述解答用紙に記入しなさい。(10 点)

(45) 来年2月,政府は、国民が異議を唱えている新しい税金を導入するつもりだ。

