英 (問題) 2009年度

〈H21031121〉

注 意 事 項

- 1. 問題冊子および記述解答用紙は、試験開始の指示があるまで開かないこと。
- 2. 問題は $2 \sim 8$ ページに記載されている。試験中に問題冊子の印刷不鮮明、ページの落丁・乱丁および解答用紙の汚れ等に気づいた場合は、手を挙げて監督員に知らせること。
- 3. 解答はすべて解答用紙の所定欄にHBの黒鉛筆またはHBのシャープペンシルで記入すること。
- 4. 記述解答用紙の所定欄(2か所)に受験番号および氏名を、マーク解答用紙の所定欄(1か所)には氏名のみを記入すること。

記述解答用紙の所定欄の受験番号は正確にていねいに記入すること。読みづらい数字は採点処理に支障をきたすことがあるので、注意すること。

数字見本	0	2	3	4	5	6	7	8	9	

5. マーク欄ははっきり記入すること。また、訂正する場合は、消しゴムでていねいに、消し残しがないようよく消すこと(砂消しゴムは使用しないこと)。

マークする時	●良い	○悪い	◎悪い
マークを消す時	○良い	○悪い	◎悪い

- 6. 試験終了の指示がでたら、すぐに解答を止め、筆記具を置くこと。終了の指示に従わず解答を続けた場合は、答案のすべてを無効とするので注意すること。
- 7. 試験終了後,問題冊子は持ち帰ること。
- 8. いかなる場合でも、解答用紙は必ず提出すること。

以下訂正済みですが、実際の試験では下記の訂正がありました。

早稲田大学 国際教養学部 一般入学試験問題の訂正内容

【英語】

問題用紙7ページ II (3)選択肢B

(3) Choose the TWO statements which agree with the content of the passage.

(誤)

B Soccer teams rarely move to a new city.

(正)

B American professional sports teams tend to move their home bases easily.

以上

READING SECTION

All answers must be indicated on the MARK SHEET.

I Answer the questions below after reading the following passage from a biography of Albert Einstein.

"I promise you four papers," the young patent examiner wrote his friend. The letter would turn out to bear some of the most significant news in the history of science, but its momentous nature was masked by an [1] impish tone that was typical of its author. He had, after all, just addressed his friend as "you frozen whale" and apologized for writing a letter that was "pure nonsense." (a) he got around to describing the papers, which he had produced during his spare time, did he give some indication that he sensed their significance.

"The first deals with radiation and the energy properties of light and is very revolutionary," he explained. Yes, it was indeed revolutionary. It argued that light could be regarded not just as a wave but also as a stream of tiny particles called quanta. The implications that would eventually arise from this theory—a cosmos without strict causality or certainty—would haunt him for the rest of his life.

"The second paper is a determination of the true sizes of atoms." (b) the very existence of atoms was still in dispute, this was the most straightforward of the papers, which is why he chose it as the safest bet for his latest attempt at a doctoral thesis. He was in the process of revolutionizing physics, but he had been repeatedly thwarted in his efforts to win an academic job or even get a doctoral degree, which he hoped might get him promoted from a third- to a second-class examiner at the patent office.

The third paper explained the constant motion of microscopic particles in liquid by using a statistical analysis of random collisions. In the process, it established that atoms and molecules actually exist.

"The fourth paper is only a rough draft at this point, and is an electrodynamics² of moving bodies which employs a modification of the theory of space and time." Well, that was certainly more than pure nonsense. Based purely on thought experiments—performed in his head rather than in a lab—he had decided to discard Newton's concepts of absolute space and time. It would become known as the Special Theory of Relativity.

(c) he did not tell his friend, because it had not yet occurred to him, was that he would produce a fifth paper that year, a short appendix to the fourth, which demonstrated a relationship between energy and mass. Out of it would arise the best-known equation in all of physics: $E=mc^2$.

Looking back at a century that will be remembered for its willingness to break classical bonds, and looking ahead to an era that seeks to nurture the creativity needed for scientific innovation, one person stands out as a paramount icon of our age: the kindly refugee from oppression whose wild hair, twinkling eyes, attractive humanity, and extraordinary brilliance made his face a symbol and his name a synonym for genius. Albert Einstein was blessed with imagination and guided by a faith in the harmony of nature's craft. His fascinating story, a testament to the connection between creativity and freedom, reflects the triumphs and confusion of the modern era.

(d) his archives have been completely opened, it is possible to explore how the private side of Einstein—his nonconformist personality, his instincts as a rebel, his curiosity, his passions and detachments—intertwined with his political side and his scientific side. Knowing about the man helps us understand the origins of his science, and vice versa. Character and imagination and creative genius were all related, as if part of some unified field.

Despite his reputation for being aloof, he was in fact passionate in both his personal and scientific pursuits. At college he fell madly in love with the only woman in his physics class, a dark and intense Serbian named Mileva Marić. They had an illegitimate daughter, then married and had two sons. She listened critically to his scientific ideas and helped to check the math in his papers, but eventually their relationship disintegrated. Einstein offered her a deal. He would win the Nobel Prize someday, he said; if she gave him a divorce, he would give her the prize money. She thought for a week and accepted.

Because his theories were so radical, it was seventeen years after his miraculous outpouring from the patent office before he was awarded the prize and she collected.

Einstein's life and work reflected the disruption of societal certainties and moral absolutes in the modernist atmosphere of the early twentieth century. Imaginative nonconformity was in the air: Picasso, Joyce, Freud, Stravinsky, Schoenberg, and others were breaking conventional bonds. Charging this atmosphere was a conception of the universe in which space and time and the properties of particles seemed based on the uncertainties of observations.

Einstein, however, was not truly a relativist, even though that is how he was interpreted by many, including some whose disdain was colored by anti-Semitism. Beneath all of his theories, including relativity, was a quest for constants, certainties, and absolutes. There was a harmonious reality underlying the laws of the universe, Einstein felt, and the goal of science was to discover it.

His quest began in 1895, when as a 16-year-old he imagined what it would be like to ride alongside a light beam. A decade later came his miracle year, described in the letter above, which laid the foundations for the two great advances of twentieth-century physics: relativity and quantum theory.

A decade after that, in 1915, he achieved his crowning glory, one of the most beautiful theories in all of science, the general theory of relativity. (e) the special theory, his thinking had evolved through thought experiments. Imagine being in an enclosed elevator, accelerating up through space, he suggested in one of them. The effects you'd feel would be indistinguishable from the experience of gravity.

Gravity, he figured, was a bending of space and time, and he came up with the equations that describe how the dynamics of this curve result from the interplay between matter, motion, and energy. It can be described by using another thought experiment. Picture what it would be like to roll a bowling ball onto the two-dimensional surface of a trampoline. (f) roll some billiard balls. They move toward the bowling ball not because it exerts some mysterious attraction but because of the way it curves the trampoline fabric. Now imagine this happening in the four-dimensional fabric of space and time. Okay, it's not easy, but that's why we're no Einstein and he was.

The exact midpoint of his career came a decade after that, in 1925, and it was a turning point. The quantum revolution he had helped to launch was being transformed into a new mechanics that was based on uncertainties and probabilities. He made his last great contributions to quantum mechanics that year but, simultaneously, began to resist it. He would spend the next three decades, ending with some equations scribbled while on his deathbed in 1955, stubbornly criticizing what he regarded as the incompleteness of quantum mechanics while attempting to combine it into a unified field theory.

Both during his thirty years as a revolutionary and his subsequent thirty years as a resister, Einstein remained consistent in his willingness to be a calmly amused loner and was comfortable not conforming. Independent in his thinking, he was driven by an imagination that broke from the confines of conventional wisdom. He was that odd breed, a respectful rebel, and he was guided by a faith, which he wore lightly and with a twinkle in his eye, in a God who would not play dice by allowing things to happen by chance.

Einstein's nonconformist streak was evident in his personality and politics as well. Although he subscribed to socialist ideals, he was too much of an individualist to be comfortable with excessive state control or centralized authority. His mischievous instincts, which served him so well as a young scientist, made him allergic to nationalism, militarism, and anything that looked like a herd mentality. And until Hitler caused him to revise his political equations, he was instinctively anti-war and celebrated resistance to war.

His tale encompasses the vast sweep of modern science, from the microscopic to the infinite, from the emission of photons⁶ to the expansion of the cosmos. A century after his great triumphs, we are still living in Einstein's universe, one defined on the scale of stars by his theory of relativity and on the scale of atoms by a quantum mechanics that has proven durable even as it remains uncomfortable.

His fingerprints are all over today's technologies. Photoelectric cells and lasers, nuclear power and fiber optics, space travel, and even semiconductors all trace back to his theories. He signed the letter to

Franklin Roosevelt warning that it may be possible to build an atom bomb, and the letters of his famed equation relating energy to mass hover in our minds when we picture the resulting mushroom cloud.

[Adapted from Walter Isaacson, Einstein: His Life and Universe, 2007] 注: ¹quanta: 量子 (quantum) の複数形; ²electrodynamics: 電気力学; ³anti-Semitism: 反ユダヤ主義; ⁴quantum theory: 量子論; ⁵mechanics: 力学; ⁶photon: 光量子、光子

- (1) Choose the best word or phrase to put in each space (a)~(f). No answer can be used more than once.
 - A As with

B Despite

C During

D Even though

E Now that

F Only when

G Then

H What

- (2) Choose the best way to answer each of the questions in accordance with the content of the passage.
 - Which of the following is closest in meaning to [1] impish, as used in the first paragraph?
 - A angry
 - B playful
 - C solemn
 - D stubborn
 - 2 Which of the following agrees with what is stated in the passage?
 - A Einstein failed to get an academic job many times.
 - B Einstein repeatedly failed mathematics at school.
 - C Mileva Marić received the Nobel Prize for her role in developing the Special Theory of Relativity.
 - D Throughout his life, Einstein was a war resister.
 - 3 According to the text, which of the following is NOT true of Einstein?
 - A Einstein's first daughter was born before he was legally married.
 - B He had a reputation as an unsociable scientist.
 - C He was an experimental, rather than theoretical, physicist.
 - D In 1905, Einstein produced at least five papers.
 - 4 Which of the following does NOT agree with what is stated in the passage?
 - A Although he was one of the originators of quantum mechanics, Einstein was not satisfied with its later development.
 - B Because of Einstein's theories, we now have things like lasers and semiconductors.
 - C Einstein helped to build an atom bomb.
 - D In the early twentieth century, not only scientists but also artists were promoting new ideas.
- (3) Choose FOUR statements which agree with the content of the passage.
 - A A thought experiment does not require scientific equipment.
 - B Einstein developed the General Theory of Relativity before the age of 40.
 - C Einstein didn't hesitate to stand out among his fellow scientists.
 - D Einstein disagreed with Newton's description of time and space.
 - E Einstein had a circle of friends including Picasso, Joyce and others.
 - F Einstein had no idea how significant his papers were.
 - G Einstein used his Nobel Prize money for further scientific research.
 - H Einstein worked in a patent office because he loved the job there.
 - I Hitler made Einstein change some of his data.

I Answer the questions below after reading the following passage.

People sometimes ask me, "What is the difference between baseball and cricket?"

The answer is simple. Both are games of great skill involving balls and bats but with this crucial difference: Baseball is exciting, and when you go home at the end of the day you know who won.

I'm joking, of course. Cricket is a wonderful sport, full of deliciously scattered moments of real action. If a doctor ever instructs me to take a complete rest and not get overexcited, (a). In the meantime, my heart belongs to baseball.

It's what I grew up with, what I played as a boy, and that of course is vital to any meaningful appreciation of a sport. I had this brought home to me many years ago in England when I went out on a soccer ground with a couple of English friends to knock a ball around.

I had watched soccer on television and thought I had a fair idea of what was required, so when one of them lofted a ball in my direction, I decided to flick it casually into the net with my head, the way I had seen Kevin Keegan do it on TV. I thought that it would be like heading a beachball—that there would be a gentle, airy *ponk* sound and that the ball would lightly leave my brow and drift in a pleasing arc into the net. But of course it was like heading a bowling ball. I have never felt anything so startlingly not like I expected it to feel. I walked around for hours on trembling legs with a big red circle and the word "MITRE" imprinted on my forehead and vowed never again to do anything so foolish and painful.

I bring this up here because the World Series has just started, and I want you to know that I am very excited about it. The World Series, I should perhaps explain, is the annual baseball contest between the champion of the American League and the champion of the National League.

Actually, that's not quite true because they changed the system some years ago. The trouble with the old way of doing things was that it involved only two teams. Now, you don't have to be a brain surgeon to work out that if you could somehow contrive to include more teams, there would be a lot more money to be made.

So each league divided itself into three divisions of four or five teams each. So now the World Series is not a contest between the two best teams in baseball—at least not necessarily—but rather between the winners of a series of playoff games involving the Western, Eastern, and Central divisional champions of each league, plus (and this was particularly inspired, I think) a pair of "wild card" teams that didn't win anything at all.

It is all immensely complicated, but essentially it means that practically every team in baseball except the Chicago Cubs gets a chance to go to the World Series.

The Chicago Cubs don't get to go because they never manage to qualify even under a system as magnificently accommodating as this. Often they *almost* qualify, and sometimes they are in such a commanding position that you cannot believe they won't qualify, but always in the end they doggedly manage to come up short. Whatever it takes—losing seventeen games in a row, letting easy balls through their legs, crashing comically into each other in the outfield—you can be certain the Cubs will manage it.

They have been doing this, reliably and efficiently, for over half a century. They haven't been in a World Series since 1945. Stalin had good years more recently than that. This heartwarming annual failure by the Cubs is almost the only thing in baseball that hasn't changed in my lifetime, and I appreciate that very much.

It's not easy being a baseball fan because baseball fans are a hopelessly sentimental bunch, and there is no room for sentiment in something as wildly profitable as an American sport. For anyone from outside America, one of the most remarkable aspects of American sports is how casually franchises abandon their loyal fans and move to a new city. In English soccer, it would be unthinkable for, say, Manchester United to move to London or Everton to find a new home in Portsmouth, or anyone to go anywhere really, but here that sort of thing happens all the time, sometimes more than once. The

Braves began life in Boston, then moved to Milwaukee, then moved to Atlanta. The A's started in Philadelphia, then switched to Kansas City, then pushed on to Oakland.

Meanwhile, the Major Leagues have repeatedly expanded to where they have reached the point where it is incredibly hard, for me at any rate, to keep track of it all. Of the thirty teams in Major League baseball, just eleven are where they were when I was a kid. There are teams out there now that I know nothing about. Without looking at the standings, I couldn't tell you whether the Arizona Diamondbacks are in the National League or the American League. That's a terrifying confession for someone who loves the game.

Even when teams stay put, they don't actually stay put. I mean by this that they are constantly tearing down old stadiums to build new ones. Call me eccentric, but I truly believe that baseball should only be watched in an old stadium. It used to be that every big American city had a venerable ballpark. Generally these were dark and dirty, but they had character. You would get splinters from the seats, the soles of your shoes would stick to the floor from all the years of drinks that had been spilled during exciting moments, and your view would generally be blocked by a cast-iron column supporting the roof. But that was all part of the glory.

Only four of these old parks are left, and two of them—Yankee Stadium in New York and Fenway Park in Boston—are under threat. I won't say that (2) Fenway's relative nearness was the decisive consideration in our settling in New Hampshire, but it was certainly a factor. Now the owners want to tear it down and build a new stadium.

In fairness it must be said that the new ballparks of the 1990s, as opposed to the multipurpose arenas built in the previous thirty years, do strive to keep the character and intimacy of the old ballparks—sometimes even improve on them—but they have one inescapable flaw. They are new. They have no history, no connection with a glorious and continuous past. No matter how wonderful a new Fenway they build, it won't be the place where Ted Williams batted. It won't make your feet stick. It won't echo in the same way. It won't smell funny. It won't be Fenway.

I keep saying that I won't go to the new park when they finally demolish Fenway, but I know I'm lying because I am hopelessly addicted to the game. All of which increases my almost boundless respect and admiration for the hapless Chicago Cubs. To their credit, the Cubs have never threatened to leave Chicago, and they continue to play at Wrigley Field. They even mostly still play day games—the way God intended baseball to be played. A day game at Wrigley Field is one of the great American experiences.

And here's the problem. Nobody deserves to go to the World Series more than the Chicago Cubs. But they can't go because (b). It is an irreconcilable paradox.

You see what I mean when I say that it is not easy being a baseball fan?

[Adapted from Bill Bryson, I'm a Stranger Here Myself, 2000]

```
(1) Choose the best phrase to fill in the spaces (a) and (b).
```

- 1 (a)
- A I shall become a fan at once
- B I shall not play cricket
- C I will avoid playing soccer
- D I will go to a hospital and stay there for at least a week
- 2 (b)
 - A that would be bad for the U.S. economy
 - B that would spoil their custom of never going
 - C they are now considering moving from Chicago
 - D they themselves do not want to go

(2) Choose the best answer for the following questions in accordance with the content of the passage.

- 1 What is true of the author?
 - A He doesn't think cricket is interesting to watch.
 - B He grew up in England, but lived in America for many years.
 - C He lies when people ask him about his favorite team.
 - D He played both cricket and baseball as a child.
 - E All of the above.
- 2 What does the author mean when he says, you don't have to be a brain surgeon to work out?
 - A even doctors cannot comprehend
 - B even if you are not especially intelligent you can understand
 - C even if you haven't studied science you can find out
 - D you do not have to be employed in medicine in order to realize
 - E you only need a knowledge of sports in order to understand
- 3 What does the author say about American professional baseball?
 - A Teams don't seem to have loyalty to any particular city.
 - B The new ballparks are not as interesting as the old ones.
 - C There are more teams playing now than when he was a child.
 - D There is a lot of emphasis on earning profits.
 - E All of the above.
- 4 According to this passage, what is true of the Chicago Cubs baseball team?
 - A Their players are not qualified for professional sports.
 - B They don't often play night games in their stadium.
 - C They have moved from their original city to a new one.
 - D They have never played in the World Series.
 - E All of the above.
- 5 Why does the author admire old baseball stadiums?
 - A Because he feels uncomfortable in places that are too clean.
 - B Because the new stadiums are in locations that are difficult to get to.
 - C Because the old stadiums are more connected to the history of the game.
 - D Because the view of the playing field is generally better in old stadiums.
 - E All of the above.
- 6 When the author talks of (2) Fenway's relative nearness, what does he mean Fenway is relatively near to?
 - A Boston
 - B New Hampshire
 - C New York
 - D Yankee Stadium
 - E We cannot tell from the passage.
- (3) Choose the TWO statements which agree with the content of the passage.
 - A Most baseball fans prefer the new ballparks.
 - B American professional sports teams tend to move their home bases easily.
 - C Stalin had a bad year because of the failure of the Chicago Cubs.
 - D The author thought it would be easy to head a soccer ball.
 - E There is a rule against the Chicago Cubs playing in the World Series.

LISTENING SECTION

All answers must be indicated on the MARK SHEET.

- II Now listen to a discussion, which you will hear TWICE. After hearing the discussion TWICE, you will hear six questions. For each question choose the answer which best matches the content of the discussion, by indicating A, B, or C on the MARK SHEET. The questions will be read only ONCE.
- Now listen to an interview, which you will hear ONCE. After hearing the interview ONCE, you will hear six questions. For each question, choose the correct answer according to the interview, by indicating A, B, or C on the MARK SHEET. The questions will be read only ONCE.

WRITING SECTION

V Read the following English passage and briefly summarize the main points in Japanese. Write your answer within the box provided on the ANSWER SHEET.

Perhaps no other aspect of Japan's education system has been so sharply criticized as the teaching of foreign languages. Although oral English had been held in high esteem during the early Meiji period, by the early twentieth century Japanese interest in learning foreign languages—particularly spoken English—had declined. The rise in nationalism led many foreign teachers to be replaced by native-born Japanese who were not always very proficient in spoken English. During the same period, the Japanese system of higher education took on an increasingly selective structure, directing the most capable students into a few elite schools; the keen competition that resulted only magnified the importance of the entrance exams. This, in turn, affected the way English was taught at the pre-collegiate level, and soon English became a means of sorting students rather than a basis of communication.

U Do you think the following statement is true? Explain your answer by writing a paragraph in English within the box provided on the ANSWER SHEET.

A blind respect for authority is the greatest enemy of truth.

[以下余白]