2016年度　　BA

英　　語

注　意

1. 問題は全部で17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)

1	● ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨ ⑩

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。

問題 1　次の英文を読み，設問に答えなさい。

If you like the president's politics, you probably like his voice and his appearance as well. The tendency to like (or dislike) everything about a person — including things you have not observed — is known as the halo effect. This is a good name for a common bias that plays a large role in shaping our view of people and situations.

Early in my career as a professor, I graded students' essay exams in the conventional way. I would pick up one student's essay booklet at a time and read all the essays in it in immediate succession, grading them as I went. I would then compute the total and go on to the next student. I (X) noticed that my grading exhibited a halo effect, and that the first question I scored had an unreasonable (3) effect on the overall grade. The mechanism was simple: if I had given a high score to the first essay, I gave the student the benefit of the doubt (4) whenever I encountered a vague statement later on. This seemed reasonable. Surely a student who had done so well on the first essay would not make a foolish mistake in the second one! But there was a serious problem with my way of doing things. If a student had written two essays, (5) one strong and one weak, I would end up with different final grades depending on which essay I read first. I had told the students that the two essays had equal weight, but that was not true. This was unacceptable.

I adopted a new procedure. Instead of reading the booklets in sequence, I read and scored all the students' answers to the first question, then went on to the next one. I made sure to write all the scores on the inside back page of the booklet (6) I would not be biased (even unconsciously) when I read the second essay. Soon after switching to the new method, I made a disturbing observation: my confidence in my grading was now much lower than it had been. The reason was that I frequently experienced a discomfort that was new to me. When I was disappointed with a student's second essay

and went to the back page of the booklet to enter a poor grade, I (Y) discovered that I had given a top grade to the same student's first essay. I also noticed that I was tempted to reduce the gap by changing the grade that I had not yet written down, and found it hard to follow the simple rule of never yielding to that temptation. My grades for the essays of a single student often varied over a considerable range. The [and/consistency/lack/left/me/of/uncertain/uncomfortable](7).

I was now less happy with and less confident in my grades than I had been earlier, but I recognized that this was a good sign, an indication that the new procedure was superior. The consistency I had enjoyed earlier was false. By allowing myself to be strongly influenced by the first question in grading subsequent ones, I spared myself the puzzlement of finding the same student doing very well on some questions and badly on others. The uncomfortable inconsistency that was revealed when I switched to the new procedure was real: it(8) reflected both the inappropriateness of any single question as a measure of what the student knew and the unreliability of my own grading.

The procedure I adopted to avoid the halo effect follows a general principle: avoid linking errors! To understand how this principle works, imagine that a large number of observers are shown glass bottles containing pennies and are challenged to estimate the number of pennies in each bottle. This is the kind of task in which individuals do very poorly, but pools of individual judgments do (Z) well. Some individuals greatly overestimate the true number, others underestimate it, but when many judgments are averaged, the average tends to be quite accurate. The mechanism is simple: all individuals look at the same bottle, and all their judgments have a common basis. On the other hand, the errors that individuals make are independent of the errors made by others, and (in the absence of a systematic bias) they tend to average to zero. However, the magic of error reduction works well only when the observations are independent and their errors unlinked. If the(9)

observers share a bias, the collection of judgments will not reduce it. Allowing the observers to influence each other effectively reduces the size of the sample, and with it the precision of the group estimate.

The principle of independent judgments (and unlinked errors) has immediate applications for the conduct of meetings, an activity in which executives in organizations spend a great deal of their working days. A simple rule can help: before an issue is discussed, all members of the committee should be asked to write a very brief summary of their position. This procedure makes good use of the value of the diversity of knowledge and opinion in the group. The standard practice of open discussion gives too much weight to the opinions (B) of those who speak early and confidently, causing others to line up behind them.

設問A

1) ハロー効果（halo effect）を表現することわざはどれか。

1. All is fair in love and war.
2. Love me little, love me long.
3. Love me, love my dog.

2) 空欄（X, Y, Z）に入るべき語の最も適切な組合わせはどれか。

1. eventually, occasionally, remarkably
2. occasionally, remarkably, eventually
3. remarkably, eventually, occasionally

3) 下線部の意味として最も適切なものはどれか。

1. unreasonably large
2. unreasonably random
3. unreasonably small

4) 下線部の内容を説明するのは次のどの文か。

1. This seemed で始まる文。
2. Surely a student で始まる文。
3. But there was で始まる文。

5) 採点の順番と合計点の間にはどのような関係があるか。

1. 合計点は採点の順番に影響されない。
2. 最後に採点する問題の解答が strong な場合，合計点が高い。
3. 最初に採点する問題の解答が strong な場合，合計点が高い。

6) 空所に入るべき最も適切な語はどれか。

1. as long as
2. even though
3. in order that

7) [　　]内を適切な語順に並べる場合，四番目に来る語はどれか。

1. lack
2. left
3. uncomfortable

8) "it" が指しているのは次のうちどれか。

1. the new procedure
2. the reality of the new procedure
3. the uncomfortable inconsistency

9) 下線部の意味として最も適切なものはどれか。

1. the observers do not well represent the population
2. the observers look at the bottle from the same angle
3. the observers tell each other their estimates

10) 本文の内容に合致するのはどれか。

1. 信頼性と自信は比例する。
2. 大統領は政策だけで判断される。
3. 多様な意見の平均が正解に近い。

設問B

下線部(B)を和訳しなさい。**(解答用紙(その２)を使用すること)**

問題 2　次の英文を読み，設問に答えなさい。

Tuesday, 4 June 1996 will forever be remembered as a dark day for the European Space Agency (ESA). The first flight of the crewless Ariane 5 rocket, carrying with it four very expensive scientific satellites, ended after 39 seconds in a horrible ball of smoke and fire. It's estimated that the explosion resulted in a loss of $370 million. What happened? It wasn't a mechanical failure or a human error. No, the launch ended in disaster thanks to a simple software bug. A computer getting its maths wrong — essentially getting overwhelmed by a number bigger than it expected.

How is it possible that computers get confused by numbers in this way? It turns out such errors are answerable for a series of disasters and accidents in recent years, destroying rockets, making space ships go missing, and sending missiles off-target.

So what are these bugs, and why do they happen?

Imagine trying to represent a value of, say, 105,350 miles on an indicator that has a maximum value of 99,999. The counter would "roll over" to 00,000 and then count up to 5,350, the remaining value. This is the same species of inaccuracy that destroyed Ariane 5. More technically, it's called "integer overflow," essentially meaning that numbers are too big to be stored in a computer system, and sometimes this can cause a breakdown.

A full investigation of the Ariane incident found that a process left over from software in the previous generation of rockets, Ariane 4, had captured an unexpectedly high reading for the speed of the newer, faster vehicle — and the Ariane 5 rocket's software couldn't handle this high figure. A self-destruct sequence was started. A couple of seconds later, the rocket was history. Such accidents occur with surprising frequency. It's suspected that the reason why the National Aeronautics and Space Administration (NASA) lost contact with the Deep Impact space ship in 2013 was an integer overflow.

And just recently it was reported that Boeing 787 aircraft may suffer from a similar issue. The control unit will automatically shut down the engines if it has been left on for over 248 days. In theory, the engines could suddenly halt even in mid-flight. A command by the Federal Aviation Administration (FAA) on the matter states that a counter in the control unit's software will "overflow" after this specific period of time, causing an error. Although not enough details have been released, some amateur observers have pointed out that 248 days (when counted in 0.01 seconds) is equal to the number 2,147,483,647 — which is significant.

How so? It just so happens that 2,147,483,647 is the maximum positive value that can be stored by a "32-bit signed register," commonly installed on many computer systems. On Ariane, by comparison, the software was using a "16-bit" space, which is much smaller and only capable of storing a maximum value of 32,767.

Numbers are unlimited, so why choose such limited storage spaces for them? The answer is that computers have traditionally demanded efficiency in all things. Storage space used to be much harder to obtain than it is today and processing larger values took longer. If you kept to certain limits, software was expected to run more smoothly. Rocket guidance systems do a lot of critical calculations very quickly, so these margins certainly matter. The problem with that, as the Ariane 5 proved, is that such limitations aren't always known to be problematic.

"We have to recognise that in software we are always approximating reality," explains Bill Scherlis, a software expert at Carnegie Mellon University. "There's always an engineering trade-off between the cost of having a more precise representation and the benefit of the efficiency."

Not all overflow accidents are as destructive, but they do frequently create unexpected effects. In December 2014, it was reported that Gangnam Style, the most popular video of all time on YouTube, had "broken" the

website's view counter. The counter had apparently been programmed to only run to 2,147,483,647 — again, the maximum positive value of a 32-bit signed register. It turned into good PR for YouTube, which updated the view count storage while enjoying worldwide coverage of the site's most popular video. The new maximum is well over nine quintillion (9×10^{18}).

Scherlis notes that the previous limitation reveals the expectations of the original programmers who built YouTube. "Certainly, when YouTube's software was first developed I think it was probably hard for any developers or designers to imagine that they would overflow this number," he says.

It's often this sort of assumption, which initially may seem reasonable, that causes problems years down the line. The most talked about overflow bug in history, which many will remember, was the well-known Millennium Bug. Although it didn't cause disasters as feared, the Y2K (Year 2000) problem did cause some headaches.

With Y2K, the bug was simple. What happens when you record years by the last two digits? 1900 becomes identical to 2000. Many people realised that this would cause confusion for any computer systems storing year values in this manner. As a result, a lot of advice was published in advance to programmers so that they could update systems before or on 1 January 2000. Planes did not fall from the sky, but there were some interesting consequences. For instance, 150 slot machines at a race track in Delaware failed, and several websites gave the new date as "1 January 19100."

Markus Kuhn, a computer scientist at the University of Cambridge, explains that time-related bugs create interest partly because their consequences are unpredictable, but also because they are "not unexpected" and that people are able to guess what will happen when the fateful date arrives.

For Kuhn, the interesting time problem for computers of the moment is not an overflow accident, but needs attention. Some years need a second

added to correct the gap between astronomical time (the time on Earth based on our planet's spin) and atomic time (the most accurate known time-keeping method, in terms of counting seconds). While atomic time, which is regularly adjusted with a leap second, is extremely precise, it actually slightly disagrees with astronomical time because the Earth's spin is very gradually slowing down. Such events as earthquakes can cause changes in the speed of this spin, meaning that the addition of leap seconds, unlike leap years, is variable. The last one was in 2012 and crashed many computers. Fortunately, says Kuhn, we'll hopefully be more prepared than we were in the past.

It seems like no matter what we do, certain numbers and calculations will always confuse computers, causing a breakdown — or worse. "We've learned a lot from the Y2K experience and other similar events," notes Scherlis. "But the reality in which we are always making approximations and having to negotiate an engineering trade-off is with us forever."

11) What caused ESA's Ariane 5 rocket to explode in 1996?

1. A human error.
2. A very large bug.
3. An integer overflow.

12) How often do guidance computers get confused by numbers?

1. Always.
2. Frequently.
3. Very rarely.

13) Why does NASA suspect it lost contact with the Deep Impact probe in 2013?

1. Because of a mental breakdown.
2. Because of an engine shutdown.
3. Because of an excessive number.

14) What does the FAA think might happen to a Boeing 787 if its control unit is left on more than 248 days?

1. Increasing air speed.
2. Falling out of the sky.
3. Nothing in particular.

15) Why does the software on a Boeing 787 use a 32-bit space rather than a 16-bit space?

1. Because a 32-bit space has a smaller risk of an integer overflow.
2. Because a 32-bit space is less expensive.
3. Because a 32-bit space runs more smoothly.

16) Bill Scherlis refers to an engineering trade-off between what two things?

1. Battery storage size and power.
2. Computer cost and accuracy.
3. Rocket fuel efficiency and design.

17) Which of the following was responsible for "breaking" YouTube's internet website?

1. A computer virus.
2. A popular video.
3. An angry employee.

18) Which of the following problems was not caused by the Millennium Bug?

1. Computer anti-virus software failures.
2. Slot machine failures at race tracks.
3. Website date and time system failures.

19) Why do we need to occasionally adjust computer time systems with leap seconds?

1. To account for leap year adjustments.
2. To match atomic time with the planet's spin.
3. To support global positioning systems.

20) Which of the following is the closest to Bill Scherlis's opinion about number accidents caused by computers?

1. Our past experience in them will not help us in the future.
2. A time will come when we no longer need to worry about them.
3. We will be troubled with them for the unforeseeable future.

問題 3　次の英文を読み，下線部の書き換えとして最も適切なものを選びなさい。

One of the most popular discourses(21) of the early twentieth century was that of "efficiency." The initial principles of Frederick Winslow Taylor's "scientific management" were appropriated(22) for industrial production by Henry Ford. His introduction of the assembly line in 1914 enormously increased production and profit and was considered a major example of the values of efficiency. The idea of scientific management and industrial rationalization advanced by Taylor and Ford was quickly adapted to discussing women's work within the home and nowhere more vigorously than in the proliferating(23) women's magazines of the period. "National efficiency" demanded that the private sphere of motherhood and housework be reconstructed as being as important to the survival of the nation as advances in war technology or industrial production. However, there were fundamental contradictions(24) in this discourse of "domestic(25) efficiency." Unlike industrial production, housework is not done for wages(26) and increased production does not make "profits" that can be reinvested(27) into higher wages of modernized equipment. Instead, stimulating higher standards of housework benefits those who manufacture household products and appliances that can be marketed as helping to produce these standards. Hence, if there are no wage incentives to housework, it becomes necessary to construct other incentives(28) that will ensure women continue to take pride in their role as housewife (and continue to purchase new products). The most pervasive(29) were the ideas that housework is a labour of creative love and motherhood and a service to the nation; discourses that effectively prevented any examination of the contradictions concealed beneath the idea of "domestic efficiency." The ideal of the "professional" housewife, promoted by women's magazine and advice manuals, bears further examination, emerging as it did at a moment when middle-class women's autonomy(30) and managerial status in the home was in decline, and working-class women were acquiring "homes of their own" to maintain.

21) 1. analyses
2. discussions
3. suspicions

22) 1. adopted
2. devised
3. practiced

23) 1. circulating
2. flourishing
3. reducing

24) 1. conflicts
2. doubts
3. errors

25) 1. household
2. internal
3. national

26) 1. budget
2. finance
3. payment

27) 1. applications
2. instruments
3. necessities

28) 1. motivations
2. rewards
3. systems

29) 1. specific
2. unique
3. widespread

30) 1. economy
2. independence
3. survival

問題 4　空所に入るべき最も適切な文を選びなさい。(同じ文を二回以上用いてはいけません)

A：So what about your memory, Peggy? How good is it?

B：It's OK, which is lucky because I need to remember lots of things.

C：(31)

B：Well, I'm a sales representative for a publishing company so I'm usually out visiting schools, trying to sell books.

C：(32)

B：Oh, lots of things. The worst thing when I started was just trying to remember how to get to these schools in my car. I used to get lost all the time. (33) Then once you're there you have to remember the names and faces of the people you're talking to. I once spent a whole hour calling this woman Sally when her name was Samantha.

A：(34)

B：For some reason she didn't tell me. And then there's all the product information.

C：Product information? (35)

B：Yes. We sell about five hundred different books and I have to know the difference between all of them. I mean, it gets easier, thank goodness, but I still make mistakes occasionally. What about you, John? You're an actor, right?

C：Yeah. (36) Fortunately, I've got a good memory for words and I don't find it that hard to memorise them. So, I mean, yeah. The other thing you have to remember when you're in the theatre is the blocking.

A：What's that?

C：Blocking? (37) Like, when you say your words you might have to walk quickly across the stage. (38) It's all planned and you have to remember it.

A : Oh, I see.

C : But it's funny: for other things I have a terrible memory. (39) I always forget birthdays and dates. I'm always late for things. It's just . . . yeah . . . luckily, I'm OK with my lines.

B : What about you, Tim?

A : I'm probably the same as all other students. At least all other history students. (40) But it's not that difficult because you read about them so much you can't really forget them. But for other things I have a really bad memory. I can never remember jokes or films. Sometimes I'm watching a film and after an hour I realise I've seen it already. I'm completely hopeless like that.

C : Oh, me too . . .

1. And she didn't tell you?
2. I have to memorise dates and also names.
3. It's where you stand or move to.
4. I'm not very good at directions.
5. I'm totally useless.
6. Like what?
7. Or move in front of someone.
8. So you need to remember . . . what exactly?
9. The main thing I have to remember is my lines.
0. What, the books?

問題 5 次の文章の下線部を英訳しなさい。**(解答用紙(その2)を使用すること)**

最近の傾向として，日本人は野菜だけでなく魚の摂取量も減っていると言われている。しかし，栄養バランスのとれた食生活を送るには，一日 30 品目程度の食品を食べ続けなければならない。

問題 6　次の英文を読み，空所に入るべき最も適切な語を選びなさい。(同じ語を二回以上用いてはいけません)

There are roughly three New Yorks. There is, first, the New York of the man or woman who was born here, who takes the city for granted and accepts its size and its liveliness as natural and inevitable. Second, there is the New York of the man or woman who works here, who comes to the city each day and leaves it each night. Third, there is the New York of the person who was born somewhere else and came to New York in (41) of something. Of these three trembling cities the greatest is the last — the city of final destination, the city that is a goal. It is this third city that accounts for New York's hypersensitive nature, its dramatic appearance, its dedication to the arts, and its incomparable achievements. Workers give the city its regular unrest; natives give it solidity and (42); but the settlers give it passion. And whether it is a farmer arriving from Italy to set up a small grocery store in a slum, or a young girl arriving from a small town in Mississippi to escape the indignity of being observed by neighbors, or a boy arriving from the Corn Belt with a draft in his suitcase and a pain in his heart, it makes no (43); each embraces New York with the intense excitement of first love, each absorbs New York with the fresh eyes of an adventurer, each generates heat and light to play down the Consolidated Edison electric company.

The worker is the oddest (44) of all. The suburb he lives in has no essential vitality of its own and is a mere cage where he comes at day's end to go to sleep. Except in rare cases, the man who lives in Mamaroneck or Little Neck or Teaneck, and works in New York, discovers nothing much about the city except the time of arrival and departure of trains and buses, and the path to a quick lunch. He is desk-bound, and has never, idly wandering in the evening, come suddenly on Belvedere Castle in the Park, seen the walls rise sheer from the water of the pond, and the boys along the shore fishing, girls

stretched out negligently on the shelves of the rocks; he has never come suddenly on anything at all in New York as a wanderer, because he has had no (45) between trains. He has fished in Manhattan's(46) and dug out coins, but never dropped off to sleep in its night. About 400,000 men and women come charging onto the Island each weekday morning, out of the mouths of tubes and (47). Not many among them have ever spent a sleepy afternoon in the great silence of the reading room of the Public Library, with the book elevator (like an old water wheel) pouring out books onto the trays. They tend their fireplaces in Westchester and in Jersey, but have never seen the fireplaces of the Bowery, the fires that burn in oil drums on zero winter nights. They may work in the financial district downtown and never see the magnificent plantings of Rockefeller Center — the flowers and trees of the flags bending in the wind on a fine morning in spring. Or they may work in a midtown office and may let a whole year swing round without sighting Governor's Island from the sea wall. The worker dies with tremendous mileage to his credit, but he is no traveler. His entrances and(48) are more winding than those in a prairie-dog village; and he calmly plays bridge while his train is buried in the mud at the bottom of the East River. The Long Island Rail Road alone carried forty million workers last year; but many of them were the same fellow retracing his steps.

The geography of New York is such that a resident sometimes travels farther, in the (49), than a worker. The journey of the composer Irving Berlin from Cherry Street in the Lower East Side to an apartment uptown was only three or four miles in length; but it was like going three times around the (50).

1. bird	2. continuity	3. difference	4. end
5. exits	6. quest	7. time	8. tunnels
9. wallet	0. world		

問題 7　空所に入るべき最も適切な語を選びなさい。（同じ語を二回以上用いてはいけません）

51) I had to pay through the (　　) for a ticket to that concert.

52) I have his name on the tip of my (　　), but I can't recall it.

53) I have volleyball on the (　　); I can't stop talking about it.

54) I wanted to say to her "I like you," but the words got stuck in my (　　).

55) If you reject your boss's offer, you'll be biting the (　　) that feeds you.

56) I'm sorry if I've offended you with what I've just told you, but I just had to get it off my (　　).

57) I'm very tired. I think I'll just put my (　　) up tonight and watch TV.

58) Keep your (　　) peeled lest you should be robbed of your purse.

59) She's involved in millions of things. She's got a (　　) in every pie.

60) When I started telling about my experience, the children were all (　　).

1. brain	2. chest	3. ears	4. eyes
5. feet	6. finger	7. hand	8. mouth
9. nose	0. tongue		