平成28年度　　〔試験時間　60分〕

T 6　英　語

この冊子は，英語の問題で1ページより10ページまであります。

〔注　　意〕

(1) 試験開始の指示があるまで，この冊子を開いてはいけません。

(2) 監督者から受験番号等記入の指示があったら，解答用マークシートに受験番号と氏名を記入し，さらに受験番号をマークしてください。

(3) 解答は，所定の解答用マークシートにマークしたものだけが採点されます。

(4) 解答用マークシートについて

① 解答用マークシートは，絶対に折り曲げてはいけません。

② マークには黒鉛筆(HBまたはB)を使用してください。指定の黒鉛筆以外でマークした場合，採点できないことがあります。

③ 誤ってマークした場合は，消しゴムで丁寧に消し，消しくずを完全に取り除いたうえ，新たにマークしてください。

④ 解答欄のマークは，横1行について1箇所に限ります。2箇所以上マークすると採点されません。あいまいなマークは無効となるので，はっきりマークしてください。

⑤ 解答用マークシート上部に記載されている解答上の注意事項を，必ず読んでから解答してください。

(5) 試験開始の指示があったら，初めに問題冊子のページ数を確認してください。ページの落丁・乱丁，印刷不鮮明等に気づいた場合は，手を挙げて監督者に知らせてください。

(6) 問題冊子は，試験終了後，持ち帰ってください。

1 Read the following passage and answer the questions below. Mark the number on your **Answer Sheet**. (66 points)

〔1〕 The shards of stone, which have an average length of about 30 mm, or 1.2 inches, may provide an insight into the evolution of the human psyche.

They were discovered at Pinnacle Point, on South Africa's southern coast, by Kyle Brown of the University of Cape Town and Curtis Marean of Arizona State University, and they are estimated to be 71,000 years old.

〔2〕 Such shards are known as microliths. They are made by heating a suitable lump of rock in a fire, and then bashing it, in order to flake pieces off its surface. They are believed to have been employed mainly as arrow heads — and were so used in Scandinavia as recently as 9,000 years ago.

〔3〕 From about 40,000 years ago microliths are common. Before that date, only one set of examples, from about 60,000 years ago, had been found. This fact has been used for support by those who think the human psyche evolved separately from, and more recently than, the physique of *Homo sapiens*.

〔4〕 Both fossil evidence and DNA analysis using molecular clocks (estimates of historical mutation rates) agree that *Homo sapiens* is 150,000-200,000 years old. It is only in the past 50,000-60,000 years, however, that it has really taken off. Some ascribe that late take-off to chance. Others think the human mind crossed a threshold at that time, and the flourishing of humanity is the consequence. The battleground for this debate is the handful of artefacts that predate 60,000 years ago — which is also the moment when *Homo sapiens* left Africa and started the (A) that has now established the species on every continent.

〔5〕 The discovery of these particular microliths, which Dr. Brown and Dr. Marean report in *Nature*, shows that people 71,000 years ago were able to conceive of making them, to act on that conception and to use the result. That suggests they had bows and arrows, a sophisticated form of weapon. This finding thus adds weight to the argument of those who believe that members of *Homo sapiens* alive at that time were not, psychologically, very different from those alive today. That their culture was simpler was because there were fewer of them, and inventions needed time to accumulate, not because they were less clever.

〔6〕 The existence of these ancient microliths may also have a bearing on a related argument, over ((a)) ((b)) ((c)) ((d)) ((e)) ((f)) ((g)) of other species. One manifestation of that difference, in the view of some, is extreme altruism — extreme in the sense that people will occasionally lay down their own lives for the sake of others.

〔7〕 Such self-sacrifice is most often seen in war, and a controversial hypothesis proposed by a few evolutionary biologists is that it did indeed evolve in the context of warfare, at the time when ((a)) ((b)) first ((c)) ((d)) ((e)) for ((f)) ((g)) another. In those circumstances, heroic self-sacrifice to preserve a band of relatives might make evolutionary sense, since an individual's genes could still be passed on collaterally, through surviving members of the band. That impulse, the theory goes, is still felt today, even though comrades-in-arms are not always blood relations.

〔8〕 Such thoughts are a heavy burden for a handful of stones to bear, but that is often the fate of fossil signs of human activity. Each discovery, though, does bring the truth a little closer.

(Adapted from "Time's Arrows")

(1) The characteristic of microliths described in paragraph [2] is likely to be . . .

1 fat
2 hot
3 thin
4 wise

(2) "This fact" stated in paragraph [3] has been used for support by those who think . . .

1 progress in the human mind came later than that of its body.
2 the first group of *Homo sapiens* was as intelligent as modern human beings.
3 the set of microliths from 60,000 years ago is not a production of *Homo sapiens*.
4 only one set of examples from about 60,000 years ago is enough to prove the progress in the human physique.

(3) Concerning "molecular clocks" in paragraph [4], fill in each blank to complete the following definition. Mark the number on your **Answer Sheet**.

A "molecular clock" is a metaphor used by the evolutionary biologists who think that some evolutionary changes occur in a ((a)) manner. That is, over the course of ((b)), ((c)) may ((d)) ((e)) in ((f)) at ((g)).

1 a reliable rate
2 any given stretch of DNA
3 build
4 clock-like
5 millions of years
6 mutations
7 up

(4) The underlined part in paragraph〔4〕states that...

1 *Homo sapiens* 50, 000-60, 000 years ago were able to measure time.

2 the development of the human mind brought about warfare about 50, 000-60, 000 years ago.

3 the human mind happened to grow more similar to modern day humans only in the past 50, 000-60, 000 years.

4 the development of the physique of *Homo sapiens* caught up with that of its psyche only 50, 000-60, 000 years ago.

(5) For (A) in paragraph〔4〕, select the best possible word from the choices provided.

1 battle

2 debate

3 problem

4 rise

(6) What does "that conception" in paragraph〔5〕refer to?

1 bows and arrows

2 making microliths

3 using the result

4 warfare

(7) For the underlined part in paragraph〔6〕fill in each blank to complete the following with the choices provided.

1 different	2 from	3 human
4 is	5 psychology	6 that
7 why		

(8) Concerning "altruism" in paragraph 〔6〕, fill in each blank to complete the following definition. Mark the number on your Answer Sheet.

Altruism in evolutionary biology is ((a)) ((b)) ((c)) ((d)) ((e)) at ((f)) ((g)) to itself.

1 a	2 behavior	3 benefits
4 cost	5 organisms	6 other
7 which		

(9) For the underlined part in paragraph 〔7〕 fill in each blank to complete the following with the choices provided.

1 it	2 made
3 one group of humans	4 possible
5 such as bows and arrows	6 the inventions of weapons
7 to annihilate	

(10) Concerning the periods mentioned in the above passage, fill in each blank to complete the sentence. Mark the number on your Answer Sheet.

〔A〕 9,000 ago is the period ((a)) which ((b)) ((c)) ((d)) ((e)) still ((f)) ((g)) by the Scandinavian people.

1 are	2 around	3 in
4 microliths	5 to have been	6 thought
7 use		

〔B〕 60,000 ago is the period ((a)) ((b)) ((c)) ((d)) ((e)) ((f)) one ((g)) examples.

1 except	2 for	3 had been found
4 microliths	5 no	6 set of
7 when		

(11) Concerning the whole passage above, mark your answer choice with either T, if it is true, or F, if it is false.

1 40,000 years ago is the period before which microliths were rare.

2 *Homo sapiens* is thought to be about 150,000-200,000 years old.

3 The shards of stone in question are too small to provide any information about our ancestor.

4 The handful of stones in question might provide a clue to the psychological development of *Homo sapiens*.

5 It is assumed from the text that primitive armies might have been formed regardless of blood relations.

6 Some researchers have pointed out that as early as 71,000 years ago, the minds of our ancestors might have been similar to ours.

2 Concerning the following passages [A]~[C], mark your answer choice with either T, if it is true, or F, if it is false. (18 points)

[A] One of the measures to combat environmental problems, financial incentives for electric cars might be effective. For many people electric cars are still unaffordable but the incentives can attract people's attention and make the product more desirable. However, there are many economic problems across the country and government budgets have to be used to tackle problems as well. Thus, only a small amount of the budget can be spent on subsidizing electric cars. In other words, as long as the government keeps in mind the broader picture of its economic condition, buying incentives that encourage people to own electric cars may be a good way to help protect the environment.

1 Our decision to own an electric car can certainly play an important role to the improvement of the economic situation.

2 Due to many economic problems the government cannot increase its budget only to provide for financial incentives for electric cars.

3 There is a concern about environmental issues, and in response to this, one solution is to give financial incentives for citizens to buy electric cars.

[B] Humankind's demand for lumber and adequate land to grow crops to feed growing populations has created vast open areas with little natural vegetation and fewer trees. This has destroyed the habitats for wildlife that were native to those areas. Take British farmlands for instance, in the early part of the 20th century these were small farmlands separated by bush rows or farm hedges. However, with the advent of modern farming methods these bush rows and hedges were removed, destroying the habitats of many butterflies and moths. The loss of these smaller animals impacted upon the survival of larger animals further up the food chain.

1 Humankind has opened more farmlands in order to feed the globe's growing populations.

2 Although humankind is the main cause of the extinction of many species, it can also act responsibly and restore the environment.

3 Modern farming methods helped larger animals increase in number.

〔C〕 Face-to-face communication is the most effective form of communication because there are many more advantages to communicating face-to-face than through devices such as cellphones and computers. However, lately, people are starting to become dependent on electronic devices to communicate with others, and this is becoming a problem. When communicating face-to-face, the eye contact that you are making with the person you are communicating with, makes it easier to get the message across. The use of eye contact has an important psychological effect when communicating, as making eye contact allows people to get your emotions across to the other person more easily, especially when people are having a hard time communicating with them. Eye contact allows you both to read each other's expressions and to gauge each other's emotions.

1 There are times when you must communicate with someone who speaks a language that you are not familiar with, and that is when gestures are often used as a communication tool.

2 Eye contact has advantages over electronic devices of communication including cellphones and computers.

3 Dependence on electronic devices such as cellphones and computers has deprived us of the opportunity to understand the emotions of the person we are communicating with.

3 Choose a word common to both brackets A and B. Mark the number on your Answer Sheet. (16 points)

(1) A I was sitting well (A) in the class.

B Please (B) my mail to our London office.

1 address

2 close

3 forward

4 straight

(2) A Two grams of calcium chloride was (A).

B The excellent performance (B) to her reputation.

1 added

2 come

3 done

4 met

(3) A An (A) method consists of heating the sample to 120 ℃

B They have no (B) but to work out a cease-fire.

1 alternative

2 effective

3 imaginable

4 optional

(4) A A few good samples were (A).

B The item can be (B) free from any post office.

1 obedient

2 obligation

3 oblivion

4 obtained

(5) A The second (A) of the experiment was not successful.

B "Still waters (B) deep."

1 run

2 set

3 sink

4 stage

(6) A When he put the (A) value into the equation, it didn't give expected results.

B My father's dog is his (B) companion.

1 abundant

2 constant

3 ignorant

4 reluctant

(7) A This finding becomes understandable in (A) of the following evidence.

B Now the exams are over, he is (B) on his feet.

1 light

2 making

3 thinking

4 way

(8) A I'll never do the (A) again.

B You can do anything you (B) at any time of the day.

1 cut

2 hold

3 know

4 like