

# 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
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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る。
5. 解答用紙をよごしたり、折り曲げたりしないこと。

**I**

次の英文を読み、設問に答えなさい。

When Jack Whitton hacked Facebook in 2013, the company thanked him and sent him a check for \$20,000. At the time, it was the largest single “bug bounty” payout by Facebook. Facebook had invited the public to break into its website and seek out vulnerabilities that malicious hackers could exploit to attack the company or its users. Whitton got paid for finding a bug that would have let any talented hacker with a phone take over your Facebook account.

Bug bounty programs grew out of the idea that well-meaning hackers shouldn’t be punished for finding and reporting security flaws. Netscape started the first program in 1995, but bounties didn’t become a major part of the security industry until the past few years. It took so long because it hasn’t always been easy to tell the good guys (the hobbyists who explore the Web because of a genuine interest in how it works and a desire to make it a better place) from the bad guys (the criminals who want to harvest user data or blackmail companies). But a new crop of companies is trying to solve that problem by standardizing the process of reporting bugs and communicating with the vast and varied community of hackers.

HackerOne, which runs bug bounty programs for big companies like Yahoo and Twitter, started in the Netherlands, where Michiel Prins and Jobert Abma grew up playing video games together. The urge to cheat led them to adjust the code of their favorite games, and once they figured out how to do that, they started hacking each other for amusement. Eventually, both ended up with careers in online security. In 2011, the two came up with a challenge for themselves: Ahead of a trip to Silicon Valley, they made a list of the top 100 tech companies and proceeded to hack them one by one. “We’d go to the website and find a weakness. We spent five to 15 minutes on each,” Prins says. They then approached the companies with their findings — and were shocked at how hard it was to get them to listen to potentially critical information.

"A third never got back to us. Despite our efforts, it never reached the right people. A third did get back to us — they were thankful, but it was awkward for them to communicate with hackers. They fixed the problem but weren't open to talking to us. As a result, we often found a way around the fix," Prins says. The final third were "extremely open" to the bug reports. Prins says he was invited to a lot of barbecues.

Alex Rice, then the product security leader at Facebook, was one of those who welcomed the information. In fact, he was so impressed by the project that he eventually signed on to help make bug bounties more acceptable to large organizations. They named the new company HackerOne as a way to take back the word *hacker*, which they say the media has misused as a way to describe only criminals. ( a ) view of a hacker is someone who is into the intellectual challenge: academics, students, and hobbyists, Rice says.

In security-world jargon, hackers are either "white hats" or "black hats" — derived from old Western movies, where you knew who the good guy was based on the color of his hat. Bounties are about creating communities of white hat hackers to keep the Web safe. Max Justicz, a junior at MIT studying computer science and electrical engineering, is a white hat. When he's bored, he fires up his Linux computer in his dorm room and wades through the Internet, looking for bugs. "If I have a ( b ) evening, I'll look for bugs."

Justicz says in the early days of experimenting, he contacted a company with a severe bug. The company thanked him but said it had noticed his intrusion, found out who he was and was about to contact his employer. It was a wakeup call — now he sticks to companies with clear bug disclosure policies that help ensure well-intentioned hacking is distinguished from malicious hacking. U. S. law defines hacking so generally that almost anything can be considered "unauthorized access" to a computer system and, therefore, a federal crime. Bug bounties solve <sup>(c)</sup>this by establishing rules that, if followed,

mean the company won't press charges for looking around.

Justicz's biggest bounty so far was \$7,500 for locating a critical bug that allowed access to a password folder, and he estimates he's already made \$20,000 to \$30,000 finding bugs. "I eat out more than I would have otherwise," Justicz says of the windfall. "I'm pretty stupidly fortunate that I've come across a new industry, and I'm in the right place at the right time." There is some real money in the white hat hacking game; as of January 20th this year, HackerOne has brokered fixes for almost 17,000 bugs and payments of \$5.84 million. That may be just a sliver of a cybersecurity industry that's worth \$75 billion, but it's an important and growing part of the ecosystem.

Justicz often spends time working on bugs he knows have no financial payoff. "Sometimes, I just get a T-shirt," he says. His ultimate goal isn't dinner money but a long-term career in security. He's well on the way, having already gotten several internships as a result of his hacking. Computer security is a career with zero percent unemployment, Rice says, so the real-world training could be invaluable.

Internet security is a young field filled with young talent, says HackerOne CEO Marten Mickos. He compares what security companies do to the Boy Scouts, which helps kids channel their energy and curiosity into something productive — one hacker on his platform is a 14-year-old in the Philippines who uses the bounty program to pay his tuition.

Bug bounties may be spreading, but there's a lot of work to be done. According to Mickos, 94 percent of the *Forbes* 2,000 world's biggest public companies still don't have a way to report bugs. Mickos thinks this is irresponsible. If you create something on the Web, "the final step is you say, 'Come and hack this.'"

問 I (1 ~ 4): 最もふさわしい答えを一つ選び、その番号をマークしなさい。

1. Which of the following best describes a "bug bounty"?
  - ① A payout for killing insects which are harmful to companies.
  - ② A fine for teaching companies how to find hackers.
  - ③ A reward for finding hackers who cheat at online video games.
  - ④ A reward for warning companies about their online security weaknesses.
  
2. Why were bug bounties not considered a major part of the security industry until recently?
  - ① Because it was often difficult to differentiate well-intentioned hackers and malicious ones.
  - ② Because not many young children had access to online video games until recently.
  - ③ Because only a small number of companies had company websites before.
  - ④ Because Michiel Prins and Jobert Abma had misused the word *hacker* to describe only criminals.
  
3. What is true about Michiel Prins and Jobert Abma?
  - ① Hacking was one of their early hobbies.
  - ② One hundred of the top tech companies tried to recruit them.
  - ③ They first met when they both got jobs in online security.
  - ④ They grew up in Silicon Valley.

4. Why were some companies uncomfortable with Prins and Abma's approaches in 2011?

- ① Because they thought Prins and Abma would not listen to critical information.
- ② Because they thought Prins and Abma would steal their ideas.
- ③ Because they were confident that their websites would never be hacked.
- ④ Because they were worried about communicating with hackers.

問Ⅱ(5): 空所(a)に最もふさわしいものを一つ選び、その番号をマークしなさい。

- ① An alternative
- ② An incorrect
- ③ An unacceptable
- ④ A similar

問Ⅲ(6): 空所(b)に最もふさわしいものを一つ選び、その番号をマークしなさい。

- ① busy
- ② capable
- ③ full
- ④ spare

問いIV(7~11): 最もふさわしい答えを一つ選び、その番号をマークしなさい。

7. What does this refer to?

- (c)
- ① A lack of established etiquette about bug bounties.
  - ② Hacking being defined so broadly by law that even well-intentioned hacking can be a crime.
  - ③ Many companies not having clear bug disclosure policies.
  - ④ Too many people looking for bugs and not enough opportunities for bounties.

8. What does Max Justicz ultimately want to achieve through his hacking?

- ① He wants to contribute to an important and growing part of the ecosystem.
- ② He wants to contribute to the establishment of rules for white hat hackers.
- ③ He wants to have a long-term career in computer security.
- ④ He wants to make dinner money by gaining internships.

9. Which of the following is *not* how Marten Mickos characterizes internet security?

- ① It's a developing field.
- ② It's a field similar to "Boy Scouts", which provides something fun and productive to children.
- ③ It originated in Asia.
- ④ It benefits from the computer skills of young people.

10. Why does Marten Mickos think many companies are irresponsible?
- ① Because many companies are still hesitant to use the web due to security fears.
  - ② Because many companies do not make donations to bug bounty programs.
  - ③ Because many companies still do not encourage people to report security flaws.
  - ④ Because many companies tend to hide the fact that they are hacked.
11. What would be the best title for this passage?
- ① Black hat hackers claim bounties.
  - ② Black hat hackers save the internet.
  - ③ White hat hackers' evil intentions.
  - ④ White hat hackers keep the internet safe.

問いV : It のさす内容がわかるように、下線部(A)を和訳しなさい。別紙の解答用紙(その2)に記入しなさい。



**II**

(12~21): 文中の空所に最もふさわしいものを一つ選び、その番号をマークしなさい。

Not so long ago, the number of billionaires whose combined wealth equaled that of the poorest half of the world's population was 388. In just five years, that's fallen to 62—few enough to fit on a London double-decker bus, with seats to spare. Those 62 lucky individuals have as much money and other assets as 3.5 billion of the world's poorest people do.

The numbers are in a new report from British charity Oxfam, released on the eve of the yearly World Economic Forum in Davos, when the rich and powerful descend on a Swiss ski resort to ( 12 ) the world's problems. It is the annual meeting for the leaders of ( 13 ). Before last year's meeting, Oxfam released a report saying the combined wealth of the world's richest 1 percent would ( 14 ) that of the remaining 99 percent. Sure enough, it did. This year, Oxfam urged the celebrities, entrepreneurs and politicians flocking to Davos "to reflect on this rapidly growing ( 15 ) of wealth at the very top of the global economic pyramid," says Gawain Kripke, director of research at the charity.

Oxfam estimates the combined wealth of those 62 people at \$1.76 trillion in 2015, roughly ( 16 ) to the gross domestic product of Canada. (All but nine of the richest were men.)

Tim Worstall, a senior fellow at the London-based Adam Smith Institute, named ( 17 ) Adam Smith, the 18th-century free market economist, says while the headline number is true, it's "just not very interesting or important because that's just how wealth distribution works." Oxfam's report also ( 18 ) that extreme poverty has been halved since 1990, an achievement Worstall credits to globalization. "I'll put up with increasing inequality," he says, "in return for less absolute poverty."

Kripke, however, says the ( 19 ) are being left behind. For example, Oxfam says, salaries for CEOs at the top 350 U. S. firms jumped 54.3 percent





**III**

A(22~31): Read the following conversation that has words deleted in certain places. Choose the word ①~④ that best fills the numbered parentheses.

Yuki: What are you planning to do ( 22 ) the winter break, Sarah?

Sarah: Well, I'd like to get out of town for about a week, but I haven't ( 23 ) up my mind where to go yet. I was thinking about traveling overseas, but I'm not sure if my budget will ( 24 ) that far.

Yuki: Actually, if you go on a package tour, sometimes it can be cheaper to go abroad than to travel in Japan.

Sarah: I guess so, but that's not really my style. I prefer to visit small places that nobody has ever heard of, and explore them at my own pace without a fixed schedule. And come to think of it, I haven't seen much of Japan yet, so I ( 25 ) as well take this opportunity to do some domestic travel.

Yuki: In that ( 26 ), why not get one of those JR passes that ( 27 ) you move around throughout Japan as much as you like on local JR trains for five days? It's really cheap, and you could just roam around the country and hop off the train whenever you felt like it.

Sarah: Hey, that's not a ( 28 ) idea! I could try documenting the trip on my blog as well. There's a lot of information on the internet in English about the big tourist spots like Tokyo and Kyoto, but not much about small towns and villages.

Yuki: It might be a good idea to focus on one area of the country, considering that you can't use the bullet train with that JR pass and it can take a long time to get from one place to ( 29 ) on local trains.

Sarah: True. Hmm, let's see . . . I think I'll go down to Kyushu. I've always wanted to visit that part of Japan, but I've ( 30 ) been there before.

Yuki: Seeing that the JR pass will be so cheap, you could splash out on a return plane ticket to Fukuoka and then travel around Kyushu for five days on the pass.

Sarah: Yuki, have you ever thought about ( 31 ) a travel agent? I think you'd be quite good at it!

22. ① during  
② middle  
③ when  
④ while

23. ① fixed  
② kept  
③ made  
④ put

24. ① contribute  
② pay  
③ stretch  
④ vary

25. ① can  
② maybe  
③ might  
④ shall

26. ① case  
② place  
③ state  
④ way

27. ① allows  
② approves  
③ enables  
④ lets
28. ① awful  
② bad  
③ good  
④ useful
29. ① addition  
② another  
③ next  
④ other
30. ① earlier  
② ever  
③ lately  
④ never
31. ① become  
② becoming  
③ work  
④ working

**B(32~36):** Read the following conversation that has words deleted in certain places. Choose the phrase marked ①, ②, ③, or ④ that best fills the numbered parentheses from the choices below.

- Kevin: Hi Sam. You look cheerful this afternoon. What are you up to?
- Sam: Well I'm ( 32 ) so I'm going home to catch up with a bit of reading.
- Kevin: You mean revision? Books for university?
- Sam: No, it's just a detective novel but maybe some of it will come ( 33 ) my criminal law course!
- Kevin: Haha! Well if you're going home early to read it, then I guess you must be enjoying it.
- Sam: Absolutely. The story has such an intriguing plot. I'm really ( 34 ) it. I wish I could write a novel like that.
- Kevin: My brother tried to write a novel when he was 15 years old. I think 15 was also the number of pages he ( 35 ) write.
- Sam: I'd be the same. I don't think I ( 36 ) actually write my own novel.
- Kevin: My brother now says the same thing — he gave up a long time ago!

32. ① all for today  
② done for the day  
③ from start to finish  
④ the finishing touch

33. ① as no surprise to  
② in contact with  
③ in handy for  
④ to terms with

34. ① hooked on  
② irritated with  
③ moaning about  
④ sick of
35. ① couldn't only  
② finally managed to  
③ had better  
④ lastly ended up
36. ① can't still  
② could ever  
③ ought yet  
④ won't ever



**IV**

(37~46): 文中の空所に最もふさわしいものを一つ選び、その番号をマークしなさい。

37. (        ) I have a lot of friends, I still feel lonely sometimes.  
① Although        ② Despite        ③ Even        ④ In spite of
38. I (        ) walking in the forest because of bears.  
① afraid        ② fear        ③ scary        ④ terrify
39. I succeeded (        ) a good job after I graduated from university.  
① in finding        ② in searching        ③ to find        ④ to search
40. I'm driving my car tonight so I will just drink alcohol-(        ) lager.  
① empty        ② free        ③ non        ④ none
41. Studying English is a challenge but it is also (        ).  
① a fan        ② a fun        ③ fan        ④ fun
42. My friends and I often (        ) in the park after school.  
① drop out        ② free up        ③ hang out        ④ put off
43. My sister (        ) to her new teacher as soon as she met her.  
① liked        ② made        ③ put        ④ took
44. I don't understand his lecture; it's (        ) me.  
① ahead        ② all over        ③ beyond        ④ up to

45. Things were starting to go bad, so I (        ) of the whole affair.

① broke my heart

② moved my eyes away

③ turned my face

④ washed my hands

46. Your new watch is to (        ) for!

① envy

② die

③ get

④ praise

V

Please write around 100 words about the following topic, using your own English.

What is the best present you ever received?