2015 年度入学試験問題

情報科学部A方式

1 限 英 語 （90分）

〈注意事項〉

1. 試験開始の合図があるまで，問題冊子を開かないこと。

2. 解答はすべて解答用紙に記入しなさい。

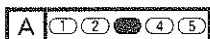3. マークシート解答方法については以下の注意事項を読みなさい。

マークシート解答方法についての注意

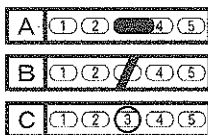マークシート解答では，鉛筆でマークしたものを機械が直接読みとって採点する。したがって解答はHBの黒鉛筆でマークすること(万年筆，ボールペン，シャープペンシルなどを使用しないこと)。

記入上の注意

1. 記入例　　　解答を3にマークする場合。

(1) 正しいマークの例

A ① ② ● ④ ⑤

(2) 悪いマークの例

A ① ② ● ④ ⑤
B ① ② ／ ④ ⑤

}枠外にはみださないこと。

C ① ② ③ ④ ⑤　　○でかこまないこと。

2. 解答を訂正する場合は，消しゴムでよく消してから，あらためてマークすること。

3. 解答用紙をよごしたり，折りまげたりしないこと。

4. 問題に指定された数よりも多くマークしないこと。

問1　次の(1)～(5)のそれぞれの単語①～④のうちから，最も強いアクセントの位置が，ほかの三つの単語と異なるものを一つ選べ。

(1)　①　fore-cast　　　　　②　ma-chine

　　③　pock-et　　　　　　④　sur-face

(2)　①　moun-tain　　　　②　cur-tain

　　③　foun-tain　　　　　④　main-tain

(3)　①　tri-an-gle　　　　　②　guar-an-tee

　　③　rec-om-mend　　　　④　af-ter-noon

(4)　①　em-pha-size　　　　②　for-tu-nate

　　③　op-po-nent　　　　　④　cat-a-logue

(5)　①　hel-i-cop-ter　　　　②　fun-da-men-tal

　　③　sci-en-tif-ic　　　　　④　com-bi-na-tion

問2　次の(1)から(10)の空欄に入れるのに最も適切なものを，それぞれ①～④のうちから一つ選べ。

(1)　I'm looking forward 　[　　　]　 to the school festival.

　　①　go　　　　②　to go　　　　③　going　　　　④　to going

(2)　Please keep the door 　[　　　]　 until I come back.

　　①　close　　　②　closed　　　③　closing　　　④　closes

(3)　This summer I 　[　　　]　 to my friend's house.　I had a great time there.

　　①　went　　　②　was gone　　　③　had gone　　　④　used to go

(4)　I hope you 　[　　　]　 in achieving some of your goals in the near future.

　　①　success　　　　　　②　have succeed

　　③　be success　　　　　④　will succeed

(5)　I'm extremely busy 　[　　　]　 for tests.

　　①　study　　　②　to study　　　③　studying　　　④　at studying

— 2 —

(6) If we take things [____], we will be in trouble before long.

   ① to grant   ② in granting

   ③ granting   ④ for granted

(7) This machine is quite familiar [____] me.

   ① at   ② on   ③ to   ④ with

(8) We need food, clothes, and a house in order to [____].

   ① living   ② live   ③ life   ④ alive

(9) If you fail [____] your promises, those around you will take your words less seriously.

   ① to keep   ② turning in

   ③ being made up   ④ looked after

(10) "What did you say? I couldn't quite [____]."

   ① carry it out   ② get along with it

   ③ make it out   ④ turn it down

問3　次の文章はアメリカ合衆国のある大学のコンピュータ科学科の紹介文からの抜粋である。文章中の(1)から(12)の空欄に文脈上最も適切な語句を①～⑫のうちから一つ選べ。同じ選択肢を二度以上選ぶことはできない。

Why Computer Science?

    In 1943, Thomas J. Watson, Chairman of IBM, declared: "I think there is a world market for maybe five computers." A few billion computers later, there is a temptation to repeat the mistake of Watson's incredibly low assessment of the potential impact [(1)] computing may have on our society. Indeed, in a few decades, "one computer for each person" [(2)] as embarrassing as a "world market of five computers" [(3)] today. Computer scientists imagine a world [(4)] computing is found anywhere and anytime. The golden age of computing (and of computer scientists) [(5)].

    Students choose to major in computer science [(6)] a variety of

reasons. After graduation, many of our students enter rewarding (7) careers in software engineering, system administration and management, research, and development in industrial and governmental laboratories. And, (8) fact that computer technology has transformed almost all fields, many of our graduates use their computer science major (and the skills of (9) it develops) to prepare themselves for a career in other fields (10) medicine, law, education, physical and life sciences, social sciences, and arts. Graduates with knowledge of computer science (11) and this trend is expected to continue to grow (12) the information age progresses!

 ①   as   ②   sounds   ③   analysis   ④   in which

 ⑤   that   ⑥   for   ⑦   such as   ⑧   because of the

 ⑨   computer-related   ⑩   may sound

 ⑪   has barely begun   ⑫   are in high demand

問4　次の文章は，ある新刊書の書評からの抜粋である。文脈に照らして(1)から
　　　(6)の空欄に入る最も適切なものを①〜⑥のうちから一つ選べ。

Why It's Better to Think Small Than to Think Big

 The main goal of the book, which came out in May 2014, is to help free readers from the boring routine of standard, everyday thought processes. Its best recommendation for doing so is to "think small" — that is, (1) . Often, the authors of the book argue, a bit of modesty and lowered ambitions are a better fit for a given problem. Here are five ways to think smaller.

1. Know Your Strengths. "Humans are amazing at a lot of really important things," one of the authors told *Science of Us*. "But then there's a lot of other fairly basic things we're poor at. The problem is that our self-awareness generally isn't so high." As a result, we have a tendency

(2) and to impose important changes or fixes on big, complicated systems, and when we attempt to, we often cause more harm than good.

2. Stay in Your Lane. The authors criticize "the habit of giving opinions and advice on matters outside of one's knowledge," and explain that (3) . Their (somewhat triumphant) example: a well-known economist's confident 1998 prediction that the Internet would soon amount to little more than a temporary trend.

3. Focus on Immediate Practical Solutions. A good example of "thinking small" from the book is about three economists who found that only a tiny proportion of the schoolchildren who needed glasses in a "poor and distant" region of China had them. Once more kids got them, their test scores went up dramatically — (4) . The kids just needed glasses.

4. Don't Be a Very Serious Person. "Seriousness of a certain sort can be a cover for not knowing what you're doing," said one of the authors. In the book, the authors complain about the joyless way so many people — particularly politicians and teachers — conduct their business. They claim that (5) , because "if you love your work (or your activities or your family time), then you'll want to do more of it. You'll think about it before you go to sleep, and as soon as you wake up. Your mind is always ready to be active."

5. Ignore Your Friends. The book emphasizes that one of the biggest obstacles to adopting its suggestions is social pressure. Psychologists know from a long line of research that (6) . "People like to be in agreement with their friends and families and fellow workers," explains one of the authors. "A lot of what we describe will maybe make you a little bit different from others, but I think it's worth it."

① we're powerfully affected by what those around us are doing

② experts often are not successful when they step into unfamiliar fields

③ to solve problems creatively, it's important to be having fun

④ to stop trying to solve everything at once using big, fancy ideas that don't get results

⑤ all without any change of the teaching method, parental participation, or other Big New Ideas

⑥ to consider our ability to be better than it really is

問5 最も適切な英文になるように選択肢を並べ替えたとき，空欄 (ア) ～ (シ) に入る語句を①～⑤のうちから一つずつ選べ。

(1) My mother wanted to know ☐ (ア) ☐ (イ) ☐ .

① would ② where ③ staying

④ I ⑤ be

(2) We were ☐ (ウ) ☐ (エ) ☐ sleep at all.

① so ② that ③ couldn't

④ we ⑤ excited

(3) I gave up ☐ (オ) ☐ (カ) ☐ of the game.

① to ② rules ③ trying

④ learn ⑤ the

(4) We will need ☐ (キ) ☐ (ク) ☐ soon.

① shopping ② get ③ to

④ done ⑤ the

(5) I'm sorry ☐ (ケ) ☐ (コ) ☐ so long.

① waiting ② keep ③ you

④ for ⑤ to

(6) Are these ☐ (サ) ☐ (シ) ☐ me for my birthday?

① the ones ② gloves ③ that

④ gave ⑤ you

問6　次の会話(1)から(5)の空欄に入れるのに最も適切なものを，それぞれ①～④のうちから一つ選べ。

(1)　Tom:　What are you going to have?

　　　Alice:　I think I'll have the beef stew.　How about you?

　　　Tom:　Hmm.　Maybe I'll have the fried chicken.　Or maybe the fish.
　　　　　　No, wait . . .

　　　Alice:　Come on!　[　　　　　]!　The waiter is coming.

　　　　①　Keep it in mind

　　　　②　Never mind

　　　　③　Change your mind

　　　　④　Make up your mind

(2)　Takako:　Have you bought anything for Sayaka's birthday?

　　　Mai:　　No, how about you?

　　　Takako:　Nothing.　I can't think what to get her.

　　　Mai:　　Let's ask her brother.　Maybe he'll [　　　　] a good idea.

　　　　①　go along with

　　　　②　fall out with

　　　　③　come up with

　　　　④　get away with

(3)　Paul:　Wow, you sure have a lot of books!

　　　Andy:　Yeah, would you like some of them?

　　　Paul:　Why, don't you want them?

　　　Andy:　I'm moving to a smaller apartment, and I need to [　　　　] a
　　　　　　lot of stuff.

　　　　①　get rid of

　　　　②　end up with

　　　　③　break down

　　　　④　pass away

(4) Avi: How was your job interview?

Gina: Terrible! I was so nervous I just talked nonsense.

Avi: Oh well, [ ]. Maybe they were impressed by your seriousness!

① not a chance

② it's no use

③ you never know

④ I can't help it

(5) Steve: What time does this class start?

Oliver: It was supposed to start at 9 o'clock.

Steve: Where's the teacher? Is she sick or something?

Oliver: No, not [ ] I know.

① as far as

② as long as

③ as soon as

④ as good as

問7　次の文章はアメリカ合衆国におけるインターネットなどのメディアの広告収入に関する報告である。この文章を読み，Figure 1 と 2 を参考にして設問に答えよ。

For the first time, companies spent more on Internet advertisements than broadcast television in the U.S., according to a new report prepared by PricewaterhouseCoopers (PwC) for the Interactive Advertising Bureau (IAB). Internet advertising as a whole cost advertisers a record-breaking $42.8 billion in 2013, a 17 percent increase over 2012, compared to the $40.1 billion spent on broadcast television advertising.

That's certainly a significant achievement. But the details of the report show a much more complicated battle between Internet and broadcast, and tell us more about why technology companies are so eager to get their

advertisements onto television.

As Figure 1 shows, PwC and IAB treat broadcast and cable as two separate categories. If you combine those categories, you get a $74.5 billion total sum spent on television advertising — far more than total Internet advertising spending.

So, yes, television is where the money is. And for good reason: It's where the attention is. According to data from another survey company, Nielsen, published in February 2014, Americans watched 185 hours of television in December 2013 — up six hours from December 2012. That was nearly seven times as long as people spent on the Internet at their computers, and more than five times as much as they spent using mobile devices like smart phones.

With that sort of consumer interest, it's no wonder big technology companies like Google, Amazon, Microsoft, and Yahoo are trying to increase their share of advertising time on U.S. television. Internet video has been expanding too — for instance, Disney recently announced a half-billion dollar deal to buy the YouTube-based Maker Studios.

But even though digital video advertising spending increased slightly in 2013 to make up 7 percent of Internet advertising revenue (see Figure 2), that looked small compared to the 43 percent brought in by search-related advertisements. And it was mobile growth that mainly caused the year-on-year increase. Mobile jumped from 9 percent of the Internet advertising marketplace to 17 percent.

So what's the conclusion? While the Internet is certainly changing traditional advertising models, there's still a lot of money to be made selling television advertisements.
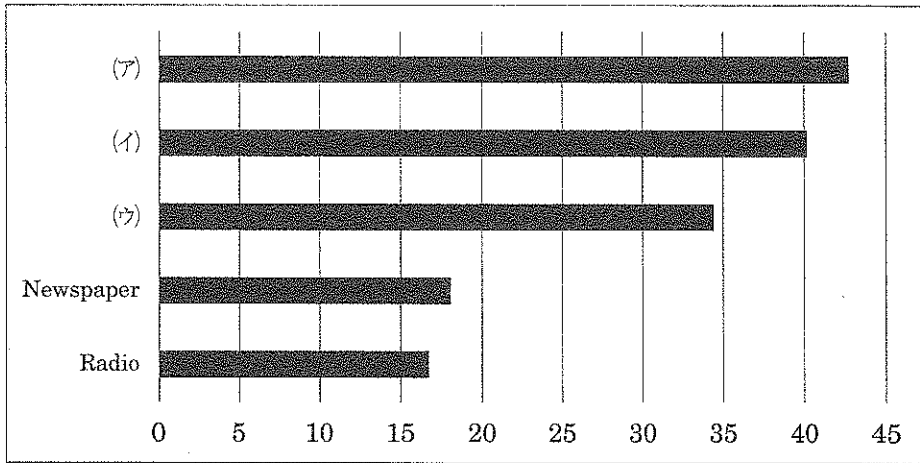
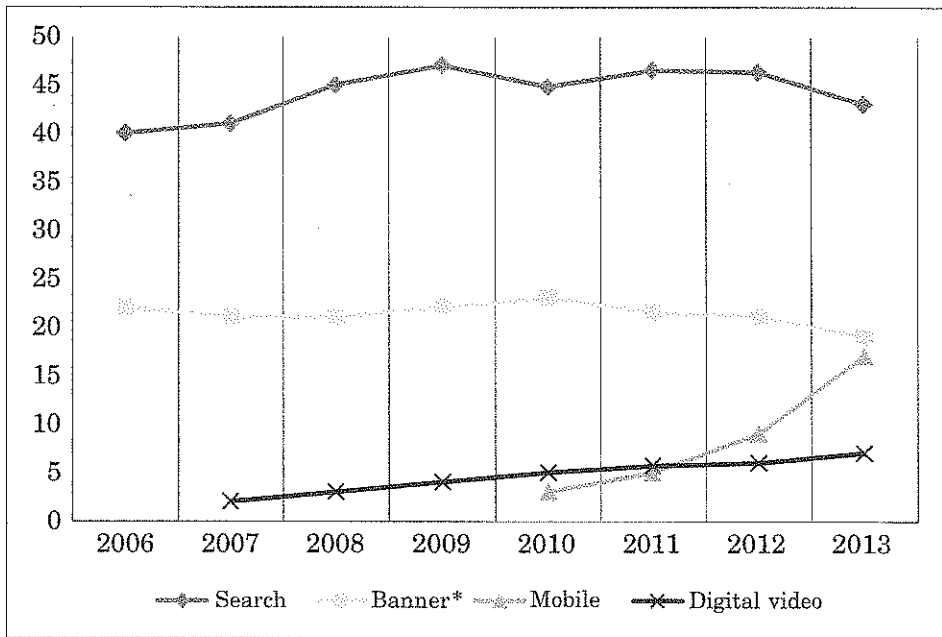**Figure 1. Advertising revenue market share for different media in 2013 (billion dollars)**

Figure 2. Revenue shares of various categories of Internet advertising from 2006 to 2013 (% of total annual revenue)

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　* banner：バナーと呼ばれる広告用の画像

(1) Figure 1 の空欄(ア)〜(ウ)に入る最も適切なものをそれぞれ①〜⑩のうちから一つ選べ。

① Broadcast television   ② PwC   ③ Cinema

④ IAB   ⑤ Cable television   ⑥ Internet

⑦ Mobile   ⑧ Magazine   ⑨ Digital video

⑩ Nielsen

(2) Figure 2 が表す内容に最も近いものを①〜④のうちから一つ選べ。

① The growth of mobile advertising contributes not only to the growth of Internet advertising but also to the increasing shares of the other categories of advertising.

② Although banner advertising kept the second largest revenue share, rapidly growing mobile advertising came close in 2013.

③ Search-related advertising will keep the largest revenue share for a few years, because it has been the top since 2006 and is still growing.

④ In 2013, digital video had kept the largest growth rate for several years, but still had much smaller revenues than search-related advertising.

(3) 本文が表す内容に最も近いものを①〜④のうちから一つ選べ。

① In spite of the steady growth of digital video advertising, revenue from Internet advertising is still less than that of television advertising.

② Advertisers prefer the Internet to television because Internet search makes effective advertising possible.

③ Since mobile devices like smart phones are becoming more popular, digital video will replace cable television in the near future.

④ Big technology companies are interested in television even though Americans are spending less time watching television than before.

問8　次の文章はインターネットに関連したある技術について紹介した文章の一部である。これを読み, (1)から(6)の質問の答えとして最も適切なものをそれぞれ①～④のうちから一つ選べ。

Websites and web applications have become increasingly complex as our industry's technologies and methods advance. What used to be a one-way medium has become very interactive[*1] now. But regardless of how much has changed, a website's success still depends on just one thing: how users feel about it. "Does this website give me value? Is it easy to use? Is it pleasant to use?" These are the questions that run through the minds of first-time users of our online products, and these questions form the basis of their decisions on whether to become regular users.

User experience design is all about trying to make them answer "Yes" to all of those questions. This introduction aims to describe user experience design in the context of web-based systems such as websites and applications.

User experience (or UX, for short) is how a person feels when using a system. The system could be a website, a web application or desktop software. Those who work on UX (called UX designers) study and evaluate how users feel about a system, looking at such things as ease of use, feelings about the value the system offers, efficiency in performing tasks, and so on.

UX is a relatively new concept in computer science. The term "user experience" was first used by Dr. Donald Norman, a cognitive science[*2] researcher who was also the first to describe the importance of user-centered design (the notion that design decisions should be based on the needs and wants of users).

Nowadays, with so much emphasis on user-centered design, emphasizing the importance of designing and improving the user experience seems almost unnecessary. We could simply say, "It's important because it

deals with our users' needs — enough said," and everyone would probably be satisfied with that.

However, we used to make websites differently before the concept of user-centered design, usability, and web accessibility became familiar. We made design decisions based on just two things: what we thought was fantastic and what the business customer wanted to see.

We built websites based on what we thought worked — we designed for ourselves. The focus was on elegance and the brand, with little thought of how the people who used the website would feel about it. There was no science behind what we did. We did it because the results looked good, because they showed creativity (so we thought), and because that was what our business customers wanted.

But in the last ten years, we have seen a transformation of the web. Not only has it become more widely used, but websites have become so complex and feature-rich that, to be effective, they must have great UX designs. Users have also been accessing websites in an increasing number of ways: mobile devices, a wide range of browsers, and different types of Internet connections.

We've also become aware of the importance of accessibility — i.e., universal access to our web-based products — not only for those with special requirements, such as blind users, for whom we provide screen readers, but also for those who don't have broadband connections or who have older mobile devices and so on.

With all of these major changes, the websites that have consistently attracted attention have been the ones that are pleasant to use. The most important factor in how we build websites today has become the experience we want to give the people who will use them.

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*1 interactive：対話式の

*2 cognitive science：認知科学

(1) According to the text, which of the following is an example of a good website?

① a website for which the business customer pays a lot of money

② a website which is pleasing to its designer

③ a website which is easy to use

④ a website which is good for the environment

(2) Which phrase is the most suitable to complete the following sentence? "UX is how (   ) feel about the interaction with a system."

① designers

② users

③ teachers

④ business customers

(3) Which of the following is **NOT** important in evaluation by UX designers?

① whether users can gain sufficient income

② whether users feel a website is easy to use

③ whether users can work efficiently

④ whether users are pleased to use a website

(4) Which of the following was the greatest concern before the UX concept was introduced?

① whether the system was easy to use

② whether users felt pleasure in using the system

③ whether blind people could use the system easily

④ whether business customers found it impressive

(5) According to the text, which of the following is **NOT** one of the reasons why good UX designs are needed?

① because websites have become more interactive

② because websites must be designed at low cost

③ because people use websites from various devices

④ because websites have become complex and feature-rich

(6) Which of the following is **NOT** true?

① Website designers should keep in mind that some users access from mobile devices.

② The importance of user-centered design was first emphasized by a cognitive scientist.

③ Users have been the first priority throughout the history of website design.

④ The focus of website design is now the experience it gives to its users.