

2021年度公募制推薦入試A日程[11/19] 適性検査問題

2 時 限

※適性検査科目は、下表のとおりです。

学部・学科		解答科目	問題・解答 用紙番号	注意事項
法学部 外国語学部		英語	11	
経済学部 経営学部		英語	11	
理工学部 【文系科目型】	住環境デザイン学科	英語	11	
看護学部		英語	11	
農学部 【文系科目型】	農業生産学科 応用生物科学科 食品栄養学科 食農ビジネス学科	英語	11	

問題は100点満点で作成しています。

I

次の英文を読み、設問に答えなさい。(32点)

- 1 From making art to crafting eyeglasses, 3D printers are reshaping our world. One of their most ⁽¹⁾promising uses is in medicine. As the name suggests, “bioprinting” uses living cells to print human tissue*. Its applications include testing drugs and treating injuries. Years from now, bioprinting may even ⁽²⁾cure people waiting for new hearts, livers, and other organs.
- 2 On a mechanical level, a bioprinter combines several technologies. It starts with a computer that supplies a model of the object being printed. As the bioprinter moves around, it acts like an inkjet printer, delivering cell droplets* one by one. Since it is a 3D printer, the ⁽³⁾device can move up, down, and in other directions. Tissues slowly grow as they are printed one layer at a time.
- 3 The creation of a bioprinter’s cell droplets, called “bioink” is ⁽⁴⁾fascinating. First, living cells are cultured in a laboratory, allowing them to ⁽⁵⁾multiply. Thousands of cells are gathered into a single droplet of bioink. During the printing process, one print head delivers the bioink. Another delivers “biopaper,” a gel or other material that supports the growing tissue.
- 4 The first bioprinter was made in 2008 by Professor Makoto Nakamura. He used it to create “biotubing” that worked like a blood vessel. The following year, California-based Organovo built its NovoGen MMX Bioprinter. By 2014, the company was printing human liver tissue for use in drug testing. That is one of the technology’s main applications. By working with material that acts like human tissue, drug companies can reduce animal testing. They can also speed up drug development schedules.
- 5 A more ⁽⁶⁾ambitious goal for the technology is the creation of body parts such as bones and organs. That is a challenging task. Printing something that behaves like a kidney is one thing. Making the organ ⁽⁷⁾stable and long lasting is another. But progress is being made. For example, Cornell University researchers are working on printing heart valves. And scientists at Harvard University have used silicon molds* to make thicker, longer-lasting tissue.
- 6 Perhaps the greatest hope for bioprinting is in personalized medicine. One day, a patient’s own cells may be used to create bioink to print a custom-made organ. The process would make it easier for his or her body to accept the

⁽⁸⁾ replacement. Such an advance would be a game changer, saving millions of lives. With many researchers hard at work, bioprinting could soon become a key medical tool. It may even make organ waitlists a thing of the past.

(Source: *Science and Tech Sense*, Nan'un-do, 2018)

- (注) tissue* (生物学的な) 組織
droplets* 小さな滴
silicon molds* シリコン製の鋳型、流し型

問1 下線部(1)~(8)の語句の文中での意味として最も適切なものを、(A)~(D)の中から一つ選びなさい。

- | | | | | |
|-----|-----------------|------------------|------------------|----------------|
| (1) | (A) variable | (B) hopeful | (C) obligatory | (D) annoying |
| (2) | (A) expand | (B) remove | (C) organize | (D) heal |
| (3) | (A) equipment | (B) operation | (C) technique | (D) stretcher |
| (4) | (A) proceeding | (B) depending | (C) interesting | (D) competing |
| (5) | (A) engage | (B) transfer | (C) increase | (D) establish |
| (6) | (A) distant | (B) immediate | (C) efficient | (D) aggressive |
| (7) | (A) secure | (B) productive | (C) complex | (D) internal |
| (8) | (A) development | (B) substitution | (C) distribution | (D) settlement |

問2 (1)~(4)の質問の答えとして最も適切なものを、(A)~(D)の中から一つ選びなさい。

- (1) According to paragraphs 1 and 2, which of the following is true?
- (A) There is no room for improvement in medical 3D printers.
 - (B) Bioprinting may become a useful technology for transplanting organs.
 - (C) A bioprinter is a machine that can walk around in a room.
 - (D) A 3D printer sends things packed together in a single sitting.

- (2) According to paragraphs 3 and 4, which of the following is true?
- (A) A droplet of bioink contains many living cells.
 - (B) A bioprinter can reproduce any kind of solid as a biopaper.
 - (C) The NovoGen MMX Bioprinter created by Organovo was the first bioprinter.
 - (D) Bioprinting can get rid of sales competition among drug companies.
- (3) According to paragraphs 5 and 6, which of the following is true?
- (A) The technology for making organs like a kidney is fully established.
 - (B) Tissue created with silicon is suitable for creating heart valves.
 - (C) 3D printing enables the exchange of organs between patients.
 - (D) Bioprinting could produce human organs on an individual basis.
- (4) Which of the following best describes the main idea of the passage?
- (A) Many patients must wait a long time for organ transplants.
 - (B) Drug companies are doing most of the research into bioprinting.
 - (C) Bioprinters make human tissue for important medical uses.
 - (D) 3D printers are used for a variety of tasks besides bioprinting.

Ⅱ 次の各文の空所に入る最も適切なものを、(A)～(D)の中から一つ選びなさい。(26点)

1. It doesn't make _____ to decline such a tempting proposal.
(A) allowance (B) use (C) progress (D) sense

2. I will now let Susan take _____ and tell you more about our new plans.
(A) over (B) down (C) place (D) after

3. My daughter used _____ this bookstore on her way home.
(A) stopping by (B) to stop by (C) stopping (D) to stop

4. _____ we need now is some good advice from experts.
(A) Which (B) Whether (C) That (D) What

5. _____ other country in the world is as large as Russia.
(A) Nothing (B) Neither (C) No (D) None

6. Jack is said to _____ an excellent student in his high school days.
(A) have been (B) be (C) had been (D) being

7. I thought the soccer match yesterday was _____.
(A) to be excited (B) exciting (C) to excite (D) excited

8. _____ how much we explained the problem, he couldn't understand it.
(A) Regardless (B) Although (C) Even if (D) No matter

9. I think the Kyoto National Museum is _____ visiting.
(A) good (B) important (C) worth (D) valuable

10. We can try _____ kinds of food at a food court.
(A) tiny (B) colorful (C) pure (D) various

11. In Japan, the peak _____ season for apples is October and November.
(A) storage (B) loss (C) decline (D) harvest
12. The traditional _____ attracts many tourists to Kyoto.
(A) globe (B) atmosphere (C) universe (D) satellite
13. YouTubers have been _____, especially among young people.
(A) influential (B) cultural (C) several (D) national

Ⅲ 次の日本語の意味を表すように、下記の語句を空所に入れて英文を完成させるとき、(1)～(15)に入る語句の記号を答えなさい。ただし、文頭に置かれる語句もすべて小文字で表記されています。(15点)

1. 新しい店はとても混んでいたもので、2時間も並ばなければなりませんでした。

The new store was (1)()(2)()()()(3) for two hours.

- (A) I (B) crowded (C) line up (D) to
(E) so (F) had (G) that

2. 最新技術によって、これまでよりも速く連絡し合えるようになります。

The latest technology will (4)()()(5)()(6) () faster than ever.

- (A) with (B) enable (C) to (D) other
(E) us (F) connect (G) each

3. 大学1年生は、批判的な思考力を伸ばすことを期待されます。

()(7)()()(8)()(9) critical thinking skills.

- (A) are (B) first-year (C) students (D) develop
(E) university (F) expected (G) to

4. 上司はジョンにその仕事を担当してもらうことにしました。

()()(10)()(11)()(12) the job.

- (A) decided (B) John (C) the boss (D) have
(E) has (F) to (G) handle

5. この本屋で手に入らない雑誌はほとんどありません。

()()(13)()(14)()(15) in this bookstore.

- (A) magazines (B) are (C) get (D) there
(E) can't (F) few (G) you

IV 会話を読み、問いに答えなさい。(12点)

問1 次の会話の空所に入る最も適切なものを、(A)~(D)の中から一つ選びなさい。

1. Takashi: Guess what? I got a new mobile phone yesterday!

Emily: Good for you! _____

Takashi: Not at all. Three hundred and sixty dollars.

Emily: That's expensive!

(A) Please tell me how much it was.

(B) What did it cost?

(C) Do you mind if I ask how much you paid for it?

(D) Can you give me your phone number?

2. Waiter: Hello. Are you ready to order?

Customer: Yes. Could I have a chicken sandwich and a coffee, please?

Waiter: Certainly. _____

Customer: I'd like a Caesar salad, too.

(A) What size would you like?

(B) When would you like to have your salad?

(C) What would you recommend?

(D) Would you like anything else?

問2 次の会話を読み、設問の答えとして最も適切なものを(A)~(D)の中から一つ選びなさい。

1. Darren: I'm looking for a new job. I need more money.
Hiori: They might be hiring at the place I work.
Darren: Isn't that the place you are always complaining about?
Hiori: It's not perfect, but at least I get all the hours I want.

According to the conversation, which of the following is true?

- (A) Darren is not satisfied with his current employment.
- (B) Darren would prefer not to work at all.
- (C) Hiori seems unwilling to help Darren solve his problem.
- (D) Hiori is searching for a job at the current time.

2. Greg: Lise, do you know what Yuki wants these days?
Lise: Mmm, no idea. Why don't you ask her directly?
Greg: No, no, no. Next weekend is her birthday.
Lise: Ah, a surprise for her. Well, how about asking Kate? She's her roommate.

According to the conversation, which of the following is true?

- (A) Lise suggests that Kate should be surprised by Greg's idea.
- (B) Lise suggests Greg invite Kate to Yuki's birthday party.
- (C) Greg is surprised to find that Yuki is looking for a roommate.
- (D) Greg wants to get a present for Yuki without her knowing.

V 資料を読み、問いに答えなさい。(15点)

問1 次の写真と会話を参照し、空所に入る最も適切なものを(A)~(D)の中から一つ選びなさい。



(Photographed by Michael Herke)

Anne: Is this a photo from your vacation?

Ryu: Yes. Can you guess where it was taken?

Anne: Well, I'm pretty sure it's not local.

Ryu: That's right. It was taken at the Vatican City in Rome.

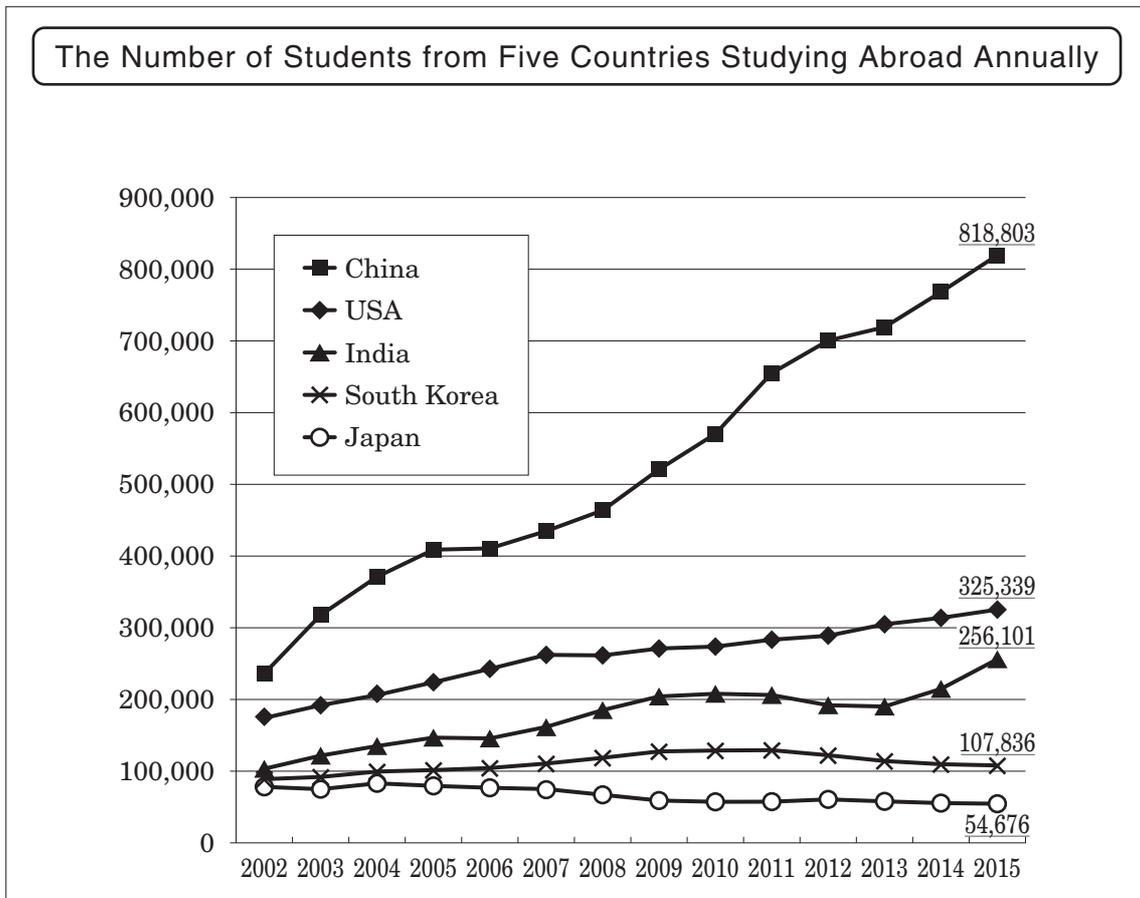
1. The picture shows _____.

- (A) tourists in a museum
- (B) the inside of a Japanese temple
- (C) people waiting in line for food
- (D) a famous tower in Europe

2. Anne and Ryu's conversation indicates that _____.

- (A) one of them speaks French fluently
- (B) both people are afraid of flying
- (C) one of them took a trip to Europe recently
- (D) photography is their shared hobby

問2 次の図を参照し、設問の答えとして最も適切なものを(A)~(D)の中から一つ選びなさい。



(Adapted from <https://tobitate.mext.go.jp/about/english.html>)

1. According to the graph, which of the following statements is true?
- (A) There is not much difference between the countries year by year.
 - (B) The number of students studying abroad is increasing every year in all countries.
 - (C) The number of Japanese students studying abroad in 2015 was lower than that in 2002.
 - (D) The number of Indian students studying abroad is gradually decreasing.

2. According to the graph, which of the following statements is NOT true?
- (A) The line with triangles indicates India and the line with diamonds is for the USA.
 - (B) In 2015, the number of American students studying abroad is less than half of that of Japanese students.
 - (C) The number of Indian students studying abroad has been rapidly increasing since 2013.
 - (D) The number of South Korean students studying overseas in 2014 was almost identical to that in 2007.
3. According to the graph, which of the following statements is most likely to be true in 2016?
- (A) The number of American students studying abroad will have surpassed the number of Chinese students.
 - (B) There is a possibility that the rankings of Japan and the USA will be reversed.
 - (C) The number of Chinese students studying abroad will continue to increase.
 - (D) The total number of students studying abroad from these five countries will remain stable.