

英 語

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注 意 事 項

1. 「解答始め」の合図があるまでこの冊子は開かないこと。
2. この冊子は11ページである。
3. 「解答始め」の合図があったら、まず、黒板に掲示又は板書してある問題冊子ページ数・解答用紙枚数・下書き用紙枚数が、自分に配付された数と合っているか確認し、もし数が合わない場合は手を高く挙げ申し出ること。次に、解答用紙をミシン目に沿って落ち着いて丁寧に別々に切り離し、学部名・受験番号・氏名を必ずすべての解答用紙の指定された箇所に記入してから、解答を始めること。
4. 解答は、必ず解答用紙の指定された箇所に記入すること。

1 次の英文を読み、設問に答えなさい。

Not long ago, schoolchildren chose what they wanted to be when they grew up, and later selected the best college they could gain admission to, spent years gaining proficiency in their fields, and joined a company that had a need for their skills. Careers (A) lifetimes.

Now, by my estimates, the half-life of a career is about 10 years. I expect that it will decrease, within a decade, to five years. Advancing technologies will cause so much disruption to almost every industry that entire professions will disappear. And then, in about 15–20 years from now, we will be facing a jobless future, in which most jobs are done by machines and the cost of basic necessities such as food, energy and health care is negligible—just as the costs of cellphone communications and information are today. We will be entering an era of abundance in which we no longer have to work to have our basic needs met. And we will gain the freedom to pursue creative endeavors and do the things that we really like.

I am not kidding. Change is happening so fast that our children may not even need to learn how to drive. By the late 2020s, self-driving cars will have proven to be so much safer than human-driven ones that we will be debating whether humans should be banned from public roads; and clean energies such as solar and wind will be able to provide for 100 percent of the planet's energy needs and cost a fraction of what fossil fuel- and nuclear-based generation does today.

A question that parents often ask me is, given that these predictions are even remotely accurate, what careers their children should pursue: whether it is best to steer them into science, engineering, and technology (STEM) fields, because it is these disciplines that are making the advances happen. The STEM–humanities dichotomy has been a traditional difficulty for parents, because English, psychology, history, and arts majors have been at a financial

(B) over the past few decades. Parents have encouraged their children to go into fields such as finance, engineering, law and medicine, because they're where the big money has been. (C)

I tell them not to do what our parents did, telling us what to study and causing us to treat education as a chore; that instead, they should encourage their children to pursue their passions and to love learning. It doesn't matter whether they want to be artists, musicians, or plumbers; the key is for children to understand that education is a lifelong endeavor ⁽⁴⁾ and to be ready to constantly reinvent themselves.

(Partially excerpted from "Love of learning is the key to success in the jobless future," *The Washington Post*, July 27, 2015)

(注) the half-life of a career : 働き盛りの時期

negligible : 無視できるほどの, 取るに足らない

fossil fuel : 化石燃料

STEM (=Science, Technology, Engineering and Mathematics) : 理系基礎分野

discipline : 学科, 学問分野

dichotomy : 二項対立, 二分法

chore : 退屈な(いやな)仕事

plumber : 配管工

設 問

(1) 前後の文脈から判断して, 空欄(A)に入る最も適切な単語を, 以下の選択肢から選んで記号で答えなさい。

(ア) supposed

(イ) interrupted

(ウ) ended

(エ) lasted

(2) 下線部(1)の意味を表す最も適切なものを、以下の選択肢から選んで記号で答えなさい。

- (ア) a situation in which something is prevented from continuing in its usual way
- (イ) a situation in which something is assisted in continuing in its usual way
- (ウ) a situation in which people are fond of continuing in their normal way
- (エ) a situation in which people make efforts to continue in their normal way

(3) 下線部(2)の an era of abundance とは具体的にどのような時代か、日本語で答えなさい。

(4) 下線部(3)はなぜか、日本語で答えなさい。

(5) 前後の文脈から判断して、空欄(B)に入る最も適切な単語を、以下の選択肢から選んで記号で答えなさい。

- (ア) advantage
- (イ) disadvantage
- (ウ) cost
- (エ) production

(6) 前後の文脈から判断して、空欄(C)に入る最も適切な文を、以下の選択肢から選んで記号で答えなさい。

- (ア) But that is going on.
- (イ) But that is changing.
- (ウ) And that predicts the future.
- (エ) And that is not the subject.

(7) 下線部(4) the key とは具体的に何を表すか、日本語で答えなさい。

試験問題は次に続く。

2 次の英文を読み、設問に答えなさい。

Composting is a biological process in which large volumes of organic materials are rapidly reduced. The small volumes left over, what we call compost, then continue to decompose. One of the many benefits of adding compost to soil is that the nutrients in the compost, though low in content, are released slowly, making them available to plants over a long period of time.

One method of composting involves creating a pile of organic materials and letting it stand for a year, when the compost is ready to use. The main advantage of this method is that little work or physical effort is required to obtain the finished product. Disadvantages are that space is utilized for an entire year, some nutrients may be leached due to exposure to rainfall, and low composting temperatures may not suppress some weed seeds, insects, and disease-producing organisms.

A more rapid method of composting has been developed that produces compost in (A) 2 to 3 weeks. Extra effort is required in exchange for this time savings, but large amounts of compost can be processed quickly in the course of a single growing season. There are several important factors essential for producing compost quickly.

Material decomposes best if it is $\frac{1}{2}$ to $1\frac{1}{2}$ inches in size. Soft, succulent tissues do not need to be chopped into very small pieces, but hard or woody tissues should be reduced to smaller pieces in order to decompose rapidly. Woody material can be put through a grinder or shredder, though chopping with pruning shears or a sharp shovel is also effective. Fallen leaves can be shredded with the lawn mower.

Composting works best if the moisture content of the pile is about 50 percent — moist, not soggy. Too much moisture slows decomposition and produces a disagreeable odor due to the activity of methane-producing microorganisms. If the organic material is too dry, decomposition will be very

slow or may not occur at all.

A compost pile needs to be turned to prevent it from overheating and to aerate and thoroughly mix the materials. If the internal temperature of the pile exceeds 160° F (71°C), the necessary microorganisms are killed, the pile cools, and the whole process of composting must start again from the beginning.

Turning is done to move to the center the material that is at the outer edge of the pile. This way, all the material reaches the optimum temperature at various times. Due to heat loss around the margins, only the central portion of the pile is at the optimum temperature. Turning can be made easier if there are two compost bins so the material can be turned from one into another. Bins made with removable sides or slats in the front make the turning process easier.

(Partially excerpted and adapted from “Compost in a Hurry” <<http://anrcatalog.ucdavis.edu/publication8037>>)

(注) nutrients : 栄養素 utilize : 利用する leach : にじみ出る
suppress : 抑制する organism : 生物 succulent : 汁気の多い
pruning shears : 刈り込みバサミ lawn mower : 芝刈り機
soggy : 水浸しの odor : 臭い microorganism : 微生物
aerate : 空気にさらす optimum : 最適な slat : 薄板

設 問

- (1) 下線部(1)の方法で堆肥を作る場合、温度が低いために雑草の種や昆虫、病原体を抑制できないこと以外に、不便な点を2つ日本語で答えなさい。
- (2) 前後の文脈から判断して、空欄(A)に入る最も適切な語句を、以下の選択肢から選んで記号で答えなさい。
- (ア) as far as (イ) as little as (ウ) as many as (エ) as long as

(3) 下線部(2)について、早く堆肥化させるために大切な要素を以下の選択肢から3つ選んで記号で答えなさい。

- (ア) season (イ) soil (ウ) material size
(エ) moisture (オ) woody tissues (カ) turning

(4) 下線部(3)について、熱が高くなりすぎるとどうなっていくか、日本語で順番に3つ答えなさい。

(5) 下線部(4)と同様の意味を持つ語を、文中から抜き出して答えなさい。

試験問題は次に続く。

3

次の各文の()に入る最も適切な語句を一つ選び、記号で答えなさい。

(1) A: I saw your brother walking in the park yesterday.

B: () all of his efforts to get a job, he is still out of work.

(ア) Despite

(イ) In spite

(ウ) Because

(エ) Because of

(2) A: Japan relies on imports for most of its energy resources.

B: We should make better () of them.

(ア) value

(イ) valuable

(ウ) using

(エ) use

(3) A: I have just heard that the plane Tim is on will arrive ().

B: Really? What has happened to it?

(ア) on time

(イ) out of time

(ウ) on schedule

(エ) behind schedule

(4) All things (), she is a fair and reliable leader.

(ア) considered

(イ) to consider

(ウ) considering

(エ) consider

(5) () Michael, he forgot to do his homework.

(ア) As is often the case with

(イ) As often with the case is

(ウ) As the case is often with

(エ) As is the case often with

(6) I like Mr. Smith. He gives us () homework than the other teachers.

(ア) few

(イ) fewer

(ウ) less

(エ) least

(7) () you need any more information, please call the information desk.

(ア) Do

(イ) Had

(ウ) Should

(エ) Would

(8) Before joining this volunteer group last week, I () about it for several months.

(ア) am thinking

(イ) had been thinking

(ウ) thought

(エ) was thinking

(9) Don't forget to post the letter, ()?

(ア) can you

(イ) do you

(ウ) will you

(エ) won't you

(10) We must discuss ().

(ア) about her problems

(イ) her problems

(ウ) of her problems

(エ) to her problems

4 次の下線部の日本語を英語になおしなさい。

Yumi: There are so many students who study abroad now. Don't you think it's a good thing?

Satoshi: 確かに、留学することでいろいろな価値観を知ることができるようになるね。⁽¹⁾ To be honest, though, I think there are some problems we need to consider.

Yumi: Oh, you do? What kind of problems?

Satoshi: As you know, 裕福な人と貧しい人の格差がますます広がっていると⁽²⁾ 言われているよ。 This income gap is causing an education gap in society. I'm worried that only the students from wealthy families will be able to study abroad.

Yumi: You are right. It seems quite unfair. そうであれば、私たちの社会⁽³⁾ が本当にグローバル化したとは言えないわ。

Satoshi: グローバル化を促進する前に、国内の教育環境を改善することを考え⁽⁴⁾ た方がいいね。

5 Write your answer in English to the following question in 80 to 100 words.

Imagine you are a very rich person and you have decided to give a lot of money to help society. How will you spend your money? Give two reasons to explain your answer.