

令和4年度入学試験問題（前期日程）

英 語

注 意 事 項

1. 受験番号を解答用紙の所定の欄(4か所)に記入すること。
2. 解答はすべて解答用紙の所定の欄に記入すること。
3. 解答用紙の他に、下書き用紙を配付するので、取り違えないように注意すること。
4. 解答時間は、100分である。

1 次の英文の社説を読んで、以下の各問に答えなさい。(30点)

Bump Up the Target for Increasing Renewable Energy*1

[1] Japan has fallen behind many other advanced economies*2 in the use of renewable energy such as wind and solar power. The government is now weighing a new set of plans to (A) renewable energy, including expanding offshore wind power and reviewing the rules on access to the power transmission system — one of the key hurdles to increased use of renewables. These efforts should be backed up by a much more aggressive target for increasing renewable energy in this country — to prompt greater investments in the sector and to emphasize the government's commitment to de-carbonizing*3 the nation's energy policy in the fight against climate change.

[2] The government's basic energy policy calls for turning renewables into a main source of power supply. However, the target share for renewable energy in the 2030 power supply mix*4 — 22-24 percent of the total — is even lower than the 26 percent targeted for coal-fired power plants, which many other industrialized nations plan to phase out because they emit more global warming gases such as carbon dioxide than other sources of power. Renewable energy including large-scale hydraulic power*5 accounted for 17 percent of the nation's power supply in fiscal year 2018 — nearly (B) the 9 percent in 2010 but still very much below the levels in advanced European economies.

[3] When most of the nation's nuclear power plants were shut down following the 2011 meltdowns at Tokyo Electric Power Company Holding's Fukushima No. 1 nuclear power plant, the power industry fired up more thermal power plants, including coal and natural gas, to make up for the loss of nuclear power, which supplied 30 percent of the nation's electricity demand before the disaster. Favored (C) its cheaper cost and the low geographical risk involved in its supply from overseas, the share of coal power reached 32 percent in 2018, second only to the 38 percent of natural gas-fired plants.

[4] In recent years, Japan has come under growing international fire for its heavy reliance on coal despite the global efforts to reduce carbon dioxide emissions. In response to such criticism, the government last month provided more details about its earlier plan to phase out "inefficient" coal-fired power plants. Of the nation's 150 coal plants, 120 were categorized as less efficient in their power generation, and about 100 of them are expected to be set aside for either permanent or temporary shutdowns by 2030.

[5] However, the impact of the move on combating climate change may not be as big as the numbers suggest. Most of the coal plants to be put out of service are old, small-capacity facilities. The more "efficient" ones that will be kept, including those now planned or under construction, have much larger capacities, so the real reduction in the total capacity of coal-

fired plants in Japan will only amount to some 20 percent according to an estimate by an environmental group. In fact, the government is not expected to change coal's share of 26 percent in the 2030 power supply mix. Even an "efficient" coal plant is said to emit twice as much carbon dioxide as a natural gas power plant, and many people point to the global warming risk posed by keeping those plants (D) operation for decades to come.

[6] Japan's hopes remain on nuclear energy — which does not emit carbon dioxide in generating power — for reducing its greenhouse gas emissions. However, the restart of nuclear plants that temporarily shut down following the 2011 Fukushima disaster remains slow. Nuclear power's share of electricity supply in 2018 was only 6 percent — far from the government's target of 20–22 percent in 2030. Due to remaining safety concerns and the increased post-Fukushima cost of running nuclear plants, prospects are slim that the restart of the idled plants will pick up significant speed in the near future.^(ウ)

[7] Given the uncertain future of nuclear power and the nation's continued heavy dependence on fossil fuel-based energy, the government remains unable to upgrade its commitments to cut greenhouse gas emissions under the Paris Agreement to fight climate change — even though nations are urged to revise their voluntary plans every five years to (E) the catastrophic effects of global warming. Significantly boosting the use of renewable energy holds the key to Japan accelerating its de-carbonization efforts, and the government needs to make its commitment clear by sharply upgrading its targets for the share of renewables in energy supply.

[8] The higher cost of renewable energy in Japan compared to other countries where the use of those energy sources has become more common, as well as the unstable power generation by renewable sources dependent on weather conditions, have often been pointed to as reasons why renewables don't take off in this country. Rather than continue to use those problems as excuses for going slowly, we must keep working on technological innovations to overcome them and lower the cost of renewables.^(Y) It's time to shift gears in the effort to restructure the nation's energy landscape.

- *1 renewable energy 再生可能エネルギー
- *2 advanced economies 経済発展国
- *3 decarbonizing 脱炭素化する
- *4 power supply mix 電力供給の構成(比)
- *5 hydraulic power 水力発電

Adapted from an editorial of *The Japan Times* (August 17, 2020). Retrieved from <https://www.japantimes.co.jp/opinion/2020/08/17/editorials/japan-target-renewable-energy/>

問1 本文中の空欄(A)～(E)に入る最も適切な語を選択肢 a～d から一つ選び、記号で答えなさい。(5点)

- (A) a. delete b. keep c. promote d. suspend
(B) a. half of b. equal to c. double d. triple
(C) a. for b. of c. to d. with
(D) a. by b. in c. on d. out
(E) a. encourage b. enhance c. hold d. prevent

問2 下線部(ア)“they”が表す英語の語句を、本文から抜き出して書きなさい。(2点)

問3 次の(1)～(4)の各問について、本文の内容に合致するものを選択肢 a～d から一つ選び、記号で答えなさい。(8点)

- (1) What happened after the melt-downs at the Fukushima No. 1 nuclear power plant?
- a. Coal supply from overseas dramatically increased.
 - b. Many coal-fired plants were shut down.
 - c. More electricity was generated by thermal plants.
 - d. The nation's electricity demands went up.
- (2) What is implied by the underlined phrase (イ) “such criticism”?
- a. Japan depends highly on coal-fired plants.
 - b. Japan plans to reduce its carbon dioxide emissions.
 - c. Japan regards 120 coal plants as less efficient.
 - d. Japan will terminate a majority of coal plants by 2030.
- (3) Which of the following is the closest to the underlined (ウ) in meaning?
- a. It is unlikely that the nuclear plants will be in full operation again soon.
 - b. The nuclear plants are widely used, but their operation should be reduced.
 - c. The speed at which the nuclear plants generate electricity will be faster.
 - d. There is a good chance that the nuclear plants will run again soon.

- (4) Which of the following best describes the current energy landscape in Japan?
- Most of the coal power plants are shut down and the construction of unfinished plants has stopped.
 - Nuclear power plants have been revived and now generate as much energy as before the 2011 disaster.
 - The Japanese government turned to the use of natural gas as a major resource of power generation.
 - The use of power generated by thermal power plants remains too high to meet the targets of the Paris Agreement.

問4 下線文(X)について、次の問いに日本語で答えなさい。(6点)

- (1) 下線文(X)の文中にある“the move”が指す具体的な内容は何か、答えの末尾を「～という動き」にして、50字以内で答えなさい。なお数字を含める場合は、1桁^{けた}を1字として数えること。
- (2) 下線文(X)において“the move”がなぜ不十分かを答えなさい。

問5 下線文(Y)の“those problems”とは何か、日本語で簡潔に二つ答えなさい。(2点)

問6 筆者の意見に最も合うものを選択肢(1)~(4)から一つ選び、番号で答えなさい。(2点)

- Because the Japanese policy of replacing coal-based plants with more nuclear power has failed, Japan should turn to increasing its use of renewable energy.
- It is regrettable but understandable that the Japanese government cannot achieve its goal of decreasing carbon dioxide emissions.
- Japan should keep using coal-fired plants for its energy needs because there is no alternative to supply inexpensive electricity to the nation.
- The Japanese government should restart the majority of coal-fired power plants in order to meet the 2030 de-carbonization goal.

問7 次の(1)~(5)について、本文の内容に合致するものには○、合致しないものには×を記入しなさい。(5点)

- (1) The current target share of renewable energy in 2030 is lower than that of coal-fired power generation.
- (2) Japan favors coal power plants because their electricity is relatively inexpensive and not affected much by location.
- (3) Other industrialized countries will increase their number of coal-fired plants.
- (4) Japan's efficient coal plants produce less carbon dioxide than natural gas plants.
- (5) Japan had hoped to reduce its carbon emissions by increasing the use of nuclear power.

2 次の英文を読んで、以下の各問に答えなさい。(30点)

Does Music Boost Your Cognitive Performance?

The Answer Depends on Your Personality

[1] Music makes life better in so many ways. It elevates mood, reduces stress, and eases pain. Music is heart-healthy, because it can lower blood pressure, reduce heart rate, and decrease stress hormones in the blood. It also connects us with others and enhances social bonds. Music can even improve workout endurance and increase our enjoyment of challenging activities. The fact that music can make a difficult task more tolerable may be why students often choose to listen to it while doing their homework or studying for exams. But is listening to music the smart choice for students who want to maximize their learning?

[2] A new study by Manuel Gonzalez and John Aiello suggests that for some students, listening to music is indeed a wise strategy, but for others, it is not. The effect of music on cognitive functioning*¹ appears not to be "one-size-fits-all" but to instead depend, in part, on your personality — specifically, on your need for external stimulation. People with a high requirement for such stimulation tend to get bored easily and to seek out external input. Those individuals often do *worse*, when listening to music while engaging in a mental task. People with a low need for external stimulation, (A), tend to improve their mental performance with music.

[3] (B), other factors play a role as well. The researchers took a sophisticated approach to understanding the influence of music on intellectual performance, assessing not only listener personality but also manipulating the difficulty of the task and the complexity of the music. Whether students experience an advantage or a disadvantage from music depends on the interaction of the personality of the learner, the mental task, and the music.

[4] In the study, participants first completed the Boredom Proneness Scale, which is a personality test that is used to determine the need for external stimulation. They then engaged in an easy cognitive task (searching for the letter A in lists of words) and a more challenging one (remembering word pairs). To control for practice and fatigue effects, half of the participants completed the easy task first, (C) the other half completed the challenging one first. Participants finished both tasks under one of three sound conditions: no music, simple music, or complex music. All of the music was instrumental, and music complexity was manipulated by varying the number of instruments involved in the piece. Simple music included piano, strings, and synthesizer, while complex music added drums and bass to the simple piece.

[5] The data suggest that your decision to turn music on (or off) while studying should depend on your personality. For those with a high need of external stimulation, listening to music while learning is not wise, especially if the task is hard and/or the music is complex. On the simple task of finding A's, such participants' scores for the music condition were the same (for simple music) or significantly worse (for complex music) than those for the silent condition. On the complex task of learning word pairs, their performance was worse whenever music was played, regardless of whether it was simple or complex.

[6] For those with a low need of external stimulation, (D), listening to music is generally the best choice. On the simple task of findings A's, such participants' scores for the music condition were the same (for simple music) or dramatically *better* (for complex music) than those for the silent condition. On the complex task of learning word pairs, the participants showed a small but reliable benefit with both simple and complex music, relative to silence.

[7] The results suggest that there are substantial individual differences in the impact of music on cognitive function, and thus ⁽⁴⁾ recommendations regarding its presence in the classroom, study hall or work environment may need to be personalized. Students who are easily bored and who seek out stimulation should be cautious of adding music to their activities especially complex music that may capture attention and consume critical cognitive resources that are needed for successful task completion. In contrast, students with a low need for stimulation may benefit significantly from the presence of music, especially when completing simple, everyday tasks.

[8] Before students decide to turn on the music, though, they should carefully consider both their musical selection and the nature of the task. All of the music used in the present study was instrumental, and lyrical music will likely be more complex. Complexity appears to increase excitement, and it is widely known that a moderate level of excitement produces the best performance. When there is too little or too much excitement, performance drops. ⁽⁵⁾ (E), the benefits of music for those with a low need for external stimulation that were observed here could disappear with the added complexity of lyrics.

[9] (F), increases in the complexity of a cognitive task might also reduce or eliminate the benefit of music. Although the "complex" task used in this study (learning word pairs) was only moderately challenging, the increase in complexity, relative to the simple task, was enough to reduce music's positive effect. With a highly challenging cognitive task (e.g., text comprehension or exam preparation), even those with a low need for external stimulation may fail to show such an effect with music.

[10] With the right (low-need-for-stimulation) personality, the right (instrumental) music and the right (low-to-moderately-difficult) task, the presence of music may significantly improve cognitive functioning. Given the many other physical, emotional, and psychological benefits of music, that subscription to the music streaming service just might pay for itself!^(イ)

*1 cognitive functioning 認知機能

Adapted from an online article by Cindi May, "Does music boost your cognitive performance? The answer depends on your personality." *Scientific American*. (May 3, 2020) Retrieved from <https://www.scientificamerican.com/article/does-music-boost-your-cognitive-performance/>

問1 本文中の空欄(A)～(F)に入る最も適切な語や語句を選択肢 a～d から一つ選び、記号で答えなさい。(6点)

- | | | | | |
|-----|-----------------|------------------|-----------------|----------------------|
| (A) | a. especially | b. generally | c. in addition | d. on the other hand |
| (B) | a. Consequently | b. In short | c. In spite of | d. Nevertheless |
| (C) | a. basically | b. during | c. for instance | d. while |
| (D) | a. additionally | b. furthermore | c. however | d. significantly |
| (E) | a. Besides | b. In comparison | c. In contrast | d. Thus |
| (F) | a. Commonly | b. For one thing | c. Similarly | d. Supposedly |

問2 本文中の下線部(1)～(5)について、意味が最も近い単語を選択肢 a～d から一つ選び、記号で答えなさい。(5点)

- | | | | | |
|-----|-----------------|-----------------|------------------|--------------------|
| (1) | a. accumulates | b. includes | c. realizes | d. strengthens |
| (2) | a. approaching | b. approving | c. comprehending | d. evaluating |
| (3) | a. because of | b. in place of | c. instead of | d. irrespective of |
| (4) | a. considerable | b. natural | c. physical | d. stable |
| (5) | a. extreme | b. insufficient | c. medium | d. minimal |

問3 下線部(ア)と(イ)を、それぞれ日本語に訳しなさい。(4点)

問4 本文の内容に合致するように、空欄①～⑤に入る適語を下記の選択肢 a～h から一つ選び、記号で答えなさい。ただし、同じ記号は一回のみ使用できるものとする。(5点)

The article discusses whether listening to music helps students learn better. It reports that the answer depends on a student's personal response toward external (①), the difficulty of the learning task, and the complexity of the (②). With respect to students' personal tendencies, those who require (③) external stimulation tend to learn worse, especially when doing a (④) task while listening to music that has drums and bass. On the other hand, for students who need low external stimulation, listening to music facilitates their learning in general. They do better on all tasks and music conditions except when they work on a (⑤) task while listening to simple music, in which case there is no difference between listening to music or doing a task in silence. That being the case, however, when the task is highly difficult, music does not help students' learning. Therefore, these individual differences must be taken into account when students decide to listen to music while studying.

- | | | | |
|------------|---------|----------|------------------|
| a. simple | b. low | c. task | d. stimulation |
| e. complex | f. high | g. music | h. concentration |

問5 次の(1)～(5)について、本文の内容と一致するように、下線部にあてはまる最も適切なものを、選択肢 a～d から一つ選び、記号で答えなさい(10点)

(1) _____ is not an example of a difficult task.

- a. Doing homework
- b. Finding a letter in lists of words
- c. Studying for exams
- d. Text comprehension

(2) In paragraph 1, "to make a difficult task more tolerable" means to make the task _____.

- a. less manageable
- b. more manageable
- c. less reasonable
- d. more reasonable

- (3) Gonzalez and Aiello did not _____.
- a. add lyrics to the music
 - b. alter the complexity of the music
 - c. assess listener personality
 - d. manipulate the difficulty of the tasks
- (4) The Boredom Proneness Scale _____.
- a. controls for practice and fatigue effects
 - b. helps people remember more challenging word pairs
 - c. identifies the degree to which external stimulation is necessary
 - d. requires students to search for the letter A in lists of words
- (5) Music has positive learning effects for students with low need for external stimulation when they _____.
- a. are engaged in an extremely challenging task
 - b. are least excited about the task at hand
 - c. are working on a moderately challenging task
 - d. listen to the music accompanied by interesting lyrics

3 次の対話文を読んで、以下の各問に答えなさい。(10点)

At a real estate agency with the building manager, Mr. Davis

Cathy: Hi. We're interested in looking at the apartment you've got for rent.
Mr. Davis: Oh, Sunrise Heights. Sure, sure, sure. It's a great little apartment.
Alice: Little? How big is it?
Mr. Davis: Oh, well, there's plenty of space for the three of you. Are you students?
Brenda: That's right. We're all at Riverside College.
Mr. Davis: That's a good school. Well, let's go and take a look, shall we?

At the Sunrise Heights apartment

Mr. Davis: OK, it's right here. This is the living room.
Alice: Gee, it's kind of small. A little table and a small sofa — that's about all that will fit in here.
Cathy: It looks big e_____ to me, and bigger than where we are right now.
Brenda: I guess it's OK. What's the kitchen like?
Mr. Davis: Oh, well, take a look. It's right through here.
Alice: It sure needs a good cleaning.
Brenda: That stove looks really old and dirty. Does it even w____?
Mr. Davis: Don't worry about the stove. The maintenance will take care of it.
Cathy: Hey, I could really cook in here. It's so much better than the kitchen we have now. We could have some good food for a change.
Alice: Hey, are you complaining about my cooking?
Cathy: No. (X) _____ I was just kidding!
Mr. Davis: Let me show you the bedrooms. This is the first bedroom. Plenty of room for two in here.
Brenda: Yeah, but it's a bit n_____. Well, I guess that's OK. We're not here very much during the day.
Cathy: It's fine if you keep the window closed.
Alice: Let's see the other bedroom.
Mr. Davis: Sure. It's right behind you.
Cathy: This seems fine. It's not as big as the other one, but there's room for my books and CDs.
Brenda: Hey, who said you'd get the single room?
Cathy: Listen, I'm thinking of you. This way you won't have to listen to my snoring.
Mr. Davis: Well, what do you think?
Alice: We need some time to think about it. Can we get back to you?

Mr. Davis: Oh, sure, but these apartments go fast, so (Y) _____

Brenda: Thanks. We'll contact you tonight.

After Mr. Davis leaves, the three roommates discuss renting the apartment.

Alice: So, what do you think?

Cathy: I like it.

Brenda: I don't know. With so many cars outside? What if we can't sleep?

Cathy: Hey, only a little traffic. No big d____. We'll get used to it.

Alice: I'm a little worried about the location and the higher rent. It's going to take an hour to get to school from here.

Cathy: Yeah, but we'll have a lot more room. I say we t____ it!

Alice: You know, Brenda, I think that whoever gets the single room really should pay more. That's only fair.

Brenda: Not a bad idea, Alice. You and I are kind of s_____ on money, and Cathy really wants a room of her own.

Adapted from "Interchange Video Teacher's Guide Two" (1996) by Jack C. Richards & Chuck Sandy, Cambridge University Press.

問1 対話文中の空欄(1)~(6)に、与えられている文字で始まる最も適切な英単語(1語)を書きなさい。ただし、文字数は下線の数と一致させること。(6点)

(1) e_____

(2) w____

(3) n_____

(4) d____

(5) t____

(6) s_____

問2 対話文中の(X)と(Y)に入る最も適切な表現を、選択肢a~dから一つ選び、記号で答えなさい。(4点)

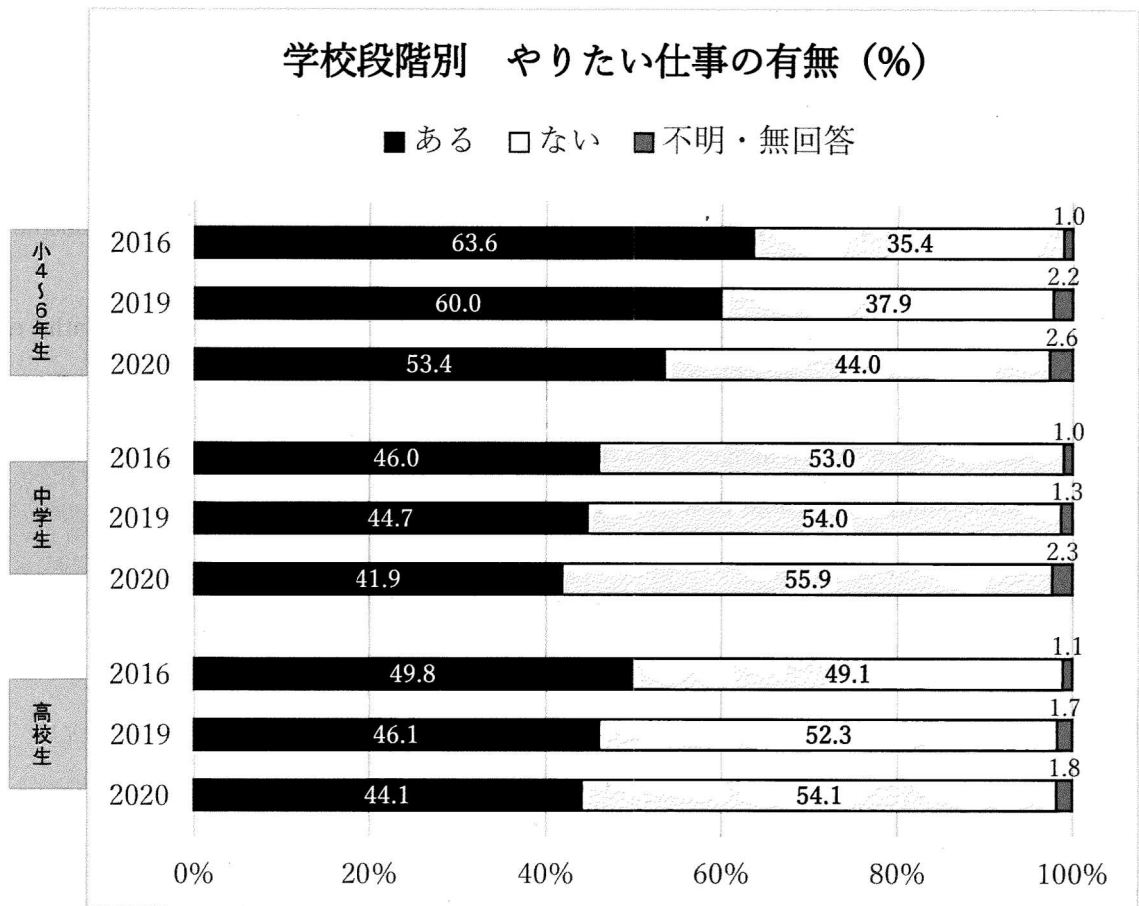
(X)

- a. Alice's cooking is awful.
- b. Brenda's cooking is awful.
- c. My cooking is great.
- d. Your cooking is great.

(Y)

- a. look for another one.
- b. take your time.
- c. they've all been rented.
- d. you'd better hurry.

4 次のグラフは、将来やりたい仕事があるかどうかについて、学校段階別にその割合(%)を調査し、2016年、2019年、2020年の結果を表したものです。このグラフから、どのような傾向が読み取れますか。また、なぜそのような傾向になるとあなたは考えますか。合わせて150語程度の英語で書きなさい。文法や綴りも採点の対象になるので注意すること。 (30点)



出典：「子供の生活と学びに関する親子アンケート調査 2020」

https://berd.benesse.jp/up_images/research/oyako_tyosa_2020.pdf

(東京大学社会科学研究所・ベネッセ教育総合研究所，令和3年3月5日) より転載。

一部改変。

