

2020 年度(令和 2 年度) 入学試験問題

数 学

【注意事項】

- 1 係員の指示があるまで、問題冊子を開いてはいけません。
- 2 この問題冊子は 12 ページ、解答用紙は 4 枚あります。
- 3 落丁、乱丁、印刷の不鮮明な箇所などがあつたときは、手を挙げて係員に申し出ること。
- 4 各解答用紙(4 枚)の受験番号欄に受験番号を数字で記入すること。
- 5 解答は必ず各問題別の解答用紙の所定の欄に記入すること。
- 6 問題冊子の余白等は適宜利用してかまいませんが、どのページも切り離してはいけません。
- 7 試験終了時刻まで退室してはいけません。
- 8 解答用紙は持ち帰ってはいけません。その他は持ち帰ること。

**1** 以下の問いに答えよ。ただし、 $i$  は虚数単位である。

(1) 次の積分を求めよ。

(i)  $\int_0^1 \frac{dx}{\sqrt{x+1}} =$

(ii)  $\int_1^e \sqrt{x} \log x \, dx =$

(2) 次の値を求めよ。

(i)  $\left(\frac{\sqrt{3}}{2} + \frac{i}{2}\right)^{2020} =$

(ii)  $\left(\cos \frac{\pi}{7} + i \sin \frac{\pi}{7}\right) \left(\cos \frac{5\pi}{14} + i \sin \frac{5\pi}{14}\right) =$

(3) 方程式  $6^x - 2^{x+1} - 3^{x+1} + 6 = 0$  を解け。

(4)  $n$  を自然数とする。 $\sqrt{n^2 + 2020}$  が整数となる  $n$  をすべて求めよ。

(5) 座標平面上に点  $A(-1, 0)$  と点  $B(1, 0)$  がある。点  $C(x, y)$  が  $\frac{AC}{BC} = 3$  を満たすとき、実数  $x$  の値の範囲を求めよ。

(計 算 用 紙)

(計 算 用 紙)

2 数列  $\{a_n\}$  の初項  $a_1$  から第  $n$  項までの和  $S_n$  が

$$S_n = 2a_n + n^2 - 3 \quad (n = 1, 2, 3, \dots)$$

であるとき、以下の空欄をうめよ。

(1)  $a_{n+1}$  を  $a_n$  の式で表すと  $a_{n+1} = \boxed{\text{イ}}$  であり、また、 $a_1 = \boxed{\text{ロ}}$  ,  
 $a_2 = \boxed{\text{ハ}}$  である。

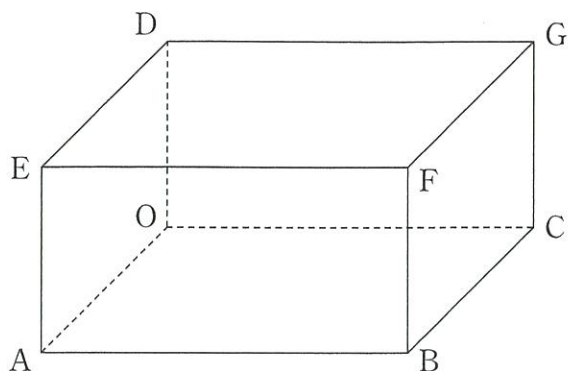
(2)  $b_n = a_{n+1} - a_n$  とおく。数列  $\{b_n\}$  の一般項を求めると、 $b_n = \boxed{\text{ニ}}$  で  
ある。

(3) 数列  $\{a_n\}$  の一般項を求めると、 $a_n = \boxed{\text{ホ}}$  である。

(計 算 用 紙)

(計 算 用 紙)

- 3 以下のような直方体  $OABC-DEFG$  において、辺  $AB$  を  $1:2$  に内分する点を  $M$ 、辺  $FG$  の中点を  $N$  とし、線分  $MN$  と平面  $EBG$  の交点を  $P$  とする。  
 $\overrightarrow{OA} = \vec{a}$ ,  $\overrightarrow{OC} = \vec{c}$ ,  $\overrightarrow{OD} = \vec{d}$  とおく。



このとき、以下の空欄をうめよ。

- (1)  $\overrightarrow{MN}$  を  $\vec{a}$ ,  $\vec{c}$ ,  $\vec{d}$  で表すと  $\overrightarrow{MN} = \boxed{\text{イ}}$  である。
- (2) 点  $P$  が平面  $EBG$  上にあることより、 $\overrightarrow{BP}$  は、実数  $s$ ,  $t$  を用いて  $\overrightarrow{BP} = s\overrightarrow{BE} + t\overrightarrow{BG}$  と書ける。このとき、 $\overrightarrow{OP}$  を  $\vec{a}$ ,  $\vec{c}$ ,  $\vec{d}$ ,  $s$ ,  $t$  で表すと  $\overrightarrow{OP} = \boxed{\text{ロ}}$  である。
- (3)  $\overrightarrow{OP}$  を  $\vec{a}$ ,  $\vec{c}$ ,  $\vec{d}$  で表すと  $\overrightarrow{OP} = \boxed{\text{ハ}}$  である。
- (4) この直方体のすべての辺の長さが  $1$  のとき、 $\triangle EBP$  の面積は  $\boxed{\text{ニ}}$  である。

(計 算 用 紙)

(計 算 用 紙)

**4** 袋の中に、1と書かれた玉、2と書かれた玉、3と書かれた玉がそれぞれ1つずつ、合計3つの玉が入っている。この袋から玉を1つ取り出して書かれた数字を調べてからもとに戻す。この試行を $n$ 回繰り返す( $n \geq 2$ )。取り出した玉に書かれた数字を、取り出した順に $X_1, X_2, \dots, X_n$ とする。 $X_i < X_{i+1}$ をみたす $i$  ( $1 \leq i \leq n-1$ )の個数を得点とすると、以下の問いに答えよ。

(1) 試行を3回繰り返した結果(すなわち $n=3$ の場合)、得点が2となる確率を求めよ。

(2) 試行を3回繰り返した結果(すなわち $n=3$ の場合)、得点が1となる確率を求めよ。

(3) 試行を3回繰り返した結果(すなわち $n=3$ の場合)、得点が0となる確率を求めよ。

(4) 試行を $n$ 回繰り返した結果、得点が0となる確率を求めよ。

(計 算 用 紙)



(計 算 用 紙)

**5** 関数  $f(x) = xe^{-x^2}$  を考える。  $y = f(x)$  のグラフを  $C$  とする。このとき、以下の問いに答えよ。(結論に至る過程も記述すること。)

- (1)  $f(x)$  の増減，極値， $C$  の凹凸，変曲点を調べて， $C$  を座標平面上に描け。
- (2) 原点を  $O$  とし， $x > 0$  の表す領域にある変曲点を  $P$  とする。このとき， $C$  と線分  $OP$  で囲まれた部分の面積を求めよ。

(計 算 用 紙)

(計 算 用 紙)

- 6**  $n$  を自然数とする。関数  $f(x) = x \sin x$  の第  $n$  次導関数  $f^{(n)}(x)$  について、次の等式がなりたつことを、数学的帰納法を用いて証明せよ。

$$f^{(n)}(x) = x \sin \left( x + \frac{n}{2} \pi \right) + n \sin \left( x + \frac{n-1}{2} \pi \right)$$

(計 算 用 紙)

(計 算 用 紙)

2020 年度(令和 2 年度) 入学試験問題

英 語

【注意事項】

- 1 係員の指示があるまで、問題冊子を開いてはいけません。
- 2 この問題冊子は、29 ページあります。
- 3 落丁、乱丁、印刷の不鮮明な箇所などがあつたときは、手を挙げて係員に申し出てください。
- 4 この試験問題の解答はマーク方式になっていますので、記入の際には次のことに十分注意してください。

- ① HB の黒鉛筆を使用し、右のマーク例を (マーク例) 参考にして、ていねいに記入してください。

良い例	悪い例
	

- ② 訂正は、消しゴムできれいに消し、消しくずを残してはいけません。
- ③ 所定の欄以外にはマークしたり、記入したりしてはいけません。
- ④ 解答用紙を汚したり、折り曲げたりしてはいけません。
- 5 解答用紙には解答欄以外に次の記入欄がありますので、係員の指示に従って、それぞれ正しく記入し、マークしてください。

- ① 氏名欄

氏名及びフリガナを記入してください。

- ② 受験番号欄・受験番号マーク欄

受験番号を数字で記入し、さらにその下のマーク欄にマークしてください。

- 6 解答は、解答用紙の解答欄にマークしてください。例えば(20)と表示のある問いに対して(C)と解答する場合は、次の(例)のように解答番号(20)の解答欄のCにマークしてください。正しくマークされていない場合には、採点できないことがありますので注意してください。

(例)

解答 番号	解	答	欄
(20)	Ⓐ	Ⓑ	● Ⓓ

- 7 問題冊子の余白等は適宜利用してかまいませんが、どのページも切り離してはいけません。
- 8 試験終了時刻まで退室してはいけません。
- 9 解答用紙は持ち帰ってはいけません。その他は持ち帰ってください。

**第1問** 次の会話(1)~(10)のそれぞれの空欄に入る最も適切なものを, (A)~(D)の中から一つずつ選びなさい。

(1) Boy: Oh no! I really don't like the fish at this restaurant.

Girl: Don't worry, \_\_\_\_\_

- (A) you can ask for chicken instead.
- (B) you don't have to come fishing.
- (C) you should try the chicken anyway.
- (D) you won't like the fish.

(2) Boss: Please turn the lights off when you leave.

Worker: \_\_\_\_\_

- (A) I will leave at 5 o'clock.
- (B) OK. I'll be sure to do that.
- (C) Sure. You're welcome.
- (D) You're right. It's too bright.

(3) Person 1: Excuse me, \_\_\_\_\_

Person 2: I'm sorry — I'm not sure.

- (A) are you Mr. Brown?
- (B) can you please pass the salt?
- (C) can you tell me where the library is?
- (D) will you please stop talking so loudly?

(4) Friend 1: Are you coming to Helen's birthday party?

Friend 2: \_\_\_\_\_

- (A) I wish I could, but I will be out of town.
- (B) No. I first met Helen at the meeting.
- (C) The birthday party was wonderful.
- (D) Yes. I'm having Helen over.

- (5) Colleague 1: \_\_\_\_\_  
Colleague 2: Nothing. I'm totally fine!
- (A) Congratulations on your new job.
  - (B) Have you paid the fine?
  - (C) How are you?
  - (D) What's wrong with you?
- (6) Husband: Why don't you put the book down and finish reading it tomorrow?  
Wife: \_\_\_\_\_
- (A) Because the book sold very well.
  - (B) Because I finished reading it.
  - (C) Because I can't wait to know the ending.
  - (D) Because I'm waiting to buy it.
- (7) Friend 1: Are you looking forward to the weekend?  
Friend 2: \_\_\_\_\_
- (A) No. I don't understand why it happened.
  - (B) No. We went there only once.
  - (C) Yes. We are already packed.
  - (D) Yes. We really enjoyed climbing mountains.
- (8) Husband: Do you want Thai food for dinner today?  
Wife: \_\_\_\_\_
- (A) But we ate Thai food yesterday.
  - (B) Let's go to Thailand.
  - (C) See you at 10:00 a.m.
  - (D) Thai food is from Thailand.



(9) Cashier: \_\_\_\_\_

Customer: No, I have my own bag.

- (A) Is this plastic bag too expensive?
- (B) What kind of bag would you like?
- (C) Would you like a plastic bag for 3 yen?
- (D) Would you like to try a larger bag?

(10) Son: Does life exist on other planets?

Father: There are billions of planets, \_\_\_\_\_

- (A) but only 8 in our Solar System.
- (B) including Jupiter.
- (C) like that one.
- (D) so it could.

**第2問** 次の英文(11)～(30)の下線部の表現と置き換えた時、元の英文の意味に最も近いものを、それぞれ(A)～(D)の中から一つずつ選びなさい。

(11) There is a high probability of rain on Wednesday.

- (A) amount
- (B) chance
- (C) problem
- (D) rate

(12) My professor always said that curiosity and working hard will lead to success.

- (A) trying not to fear
- (B) trying to be smart
- (C) trying to get knowledge
- (D) trying to have luck

(13) Kevin humbly accepted the award.

- (A) excitedly
- (B) modestly
- (C) proudly
- (D) simply

(14) This weekend, she needs to take it easy after a very active week at work.

- (A) clean up
- (B) finish working
- (C) relax her mind
- (D) stretch

- (15) I met my friend for dinner, and his skin looked very pale.
- (A) dark
  - (B) healthy
  - (C) light
  - (D) sunburned
- (16) After building the house, he had to shop for appliances.
- (A) home permits
  - (B) home computers
  - (C) household devices
  - (D) household furniture
- (17) He cautiously asked everyone to keep the information secret.
- (A) carefully
  - (B) logically
  - (C) quietly
  - (D) seriously
- (18) The driver wanted to avoid the traffic jam.
- (A) clear up
  - (B) prevent
  - (C) stay away from
  - (D) take part in
- (19) The car technician adjusted the brakes.
- (A) cleaned
  - (B) fixed
  - (C) installed
  - (D) removed

- (20) This product was available only in Europe.
- (A) abolished
  - (B) criticized
  - (C) repaired
  - (D) sold
- (21) The average score of class A was noticeably better than that of class B.
- (A) merely
  - (B) occasionally
  - (C) significantly
  - (D) slightly
- (22) The teacher divided the cake equally.
- (A) baked
  - (B) cut
  - (C) liked
  - (D) mixed
- (23) I have been feeling tired lately.
- (A) at night
  - (B) finally
  - (C) recently
  - (D) this evening
- (24) The breeze felt cold against my face.
- (A) gentle wind
  - (B) snow
  - (C) strong rain
  - (D) typhoon

- (25) I need to negotiate with my client.
- (A) discuss
  - (B) go out
  - (C) practice
  - (D) work
- (26) We should not forget the tragedies of the past.
- (A) disasters
  - (B) life savers
  - (C) predictions
  - (D) volunteers
- (27) The artificial lake in Disneyland is quite beautiful.
- (A) efficient
  - (B) previous
  - (C) unnatural
  - (D) vital
- (28) You are allowed to register for multiple computer courses.
- (A) give up
  - (B) take
  - (C) teach
  - (D) transfer
- (29) The meeting was put off because of the terrible weather.
- (A) assigned
  - (B) contrasted
  - (C) investigated
  - (D) postponed

(30) My boss is a thoroughly reliable man.

(A) completely

(B) hardly

(C) necessarily

(D) sometimes

**第3問** 次の英文(31)～(60)のそれぞれの空欄に入る最も適切なものを、(A)～(D)の中から一つずつ選びなさい。

(31) I will participate \_\_\_\_\_ the triathlon.

- (A) for
- (B) in
- (C) on
- (D) with

(32) If you could own any car, which one \_\_\_\_\_ you choose?

- (A) can
- (B) could
- (C) must
- (D) would

(33) Yesterday morning, she \_\_\_\_\_ for the final time before the concert.

- (A) has practiced
- (B) is practicing
- (C) practiced
- (D) practices

(34) \_\_\_\_\_ runner finishes the race first will win the gold medal.

- (A) However
- (B) Whenever
- (C) Whichever
- (D) Whoever

- (35) This year was \_\_\_\_\_ than last year.
- (A) most warm
  - (B) so warm
  - (C) warmer
  - (D) warmest
- (36) The floor should \_\_\_\_\_ once a week.
- (A) be cleaned
  - (B) clean
  - (C) cleaning
  - (D) have cleaned
- (37) What's the most \_\_\_\_\_ topic in your opinion?
- (A) interest
  - (B) interested
  - (C) interesting
  - (D) interests
- (38) \_\_\_\_\_ computers had their operating systems updated.
- (A) All
  - (B) Almost
  - (C) Each
  - (D) Everyone
- (39) Mr. Smith \_\_\_\_\_ forgets to water his plant.
- (A) before
  - (B) ever
  - (C) often
  - (D) tomorrow



(40) The children enjoyed comparing their new toys \_\_\_\_\_.

- (A) at themselves
- (B) for each other
- (C) for themselves
- (D) with each other

(41) We will have to have the roof \_\_\_\_\_.

- (A) fix
- (B) fixed
- (C) fixing
- (D) to be fixed

(42) Ellen said Jim \_\_\_\_\_ to New York.

- (A) had never been
- (B) has been never
- (C) was never gone
- (D) went never

(43) Bring me a cup of coffee, \_\_\_\_\_?

- (A) are you
- (B) do you
- (C) should you
- (D) will you

(44) My brother never allows me \_\_\_\_\_ his car.

- (A) a use of
- (B) to use
- (C) use
- (D) using

- (45) There is no use \_\_\_\_\_.  
(A) shout at him  
(B) shouting at him  
(C) to shout at him  
(D) to shouting at him
- (46) One of the boys \_\_\_\_\_ a lie.  
(A) are telling  
(B) is telling  
(C) tell  
(D) telling
- (47) How foolish \_\_\_\_\_ such a thing!  
(A) him said  
(B) him to say  
(C) of him to say  
(D) to him saying
- (48) My grandmother had \_\_\_\_\_ from Italy.  
(A) three carton of furniture  
(B) three furniture  
(C) three furnitures  
(D) three pieces of furniture
- (49) Where is the computer \_\_\_\_\_ the sticker on it?  
(A) has  
(B) of having  
(C) that has  
(D) what has

- (50) Although he is over 80 years old, he is \_\_\_\_\_ very active.
- (A) already
  - (B) anymore
  - (C) once
  - (D) still
- (51) He has been the president \_\_\_\_\_.
- (A) during 20 years before
  - (B) for 20 years
  - (C) since 20 years
  - (D) while 20 years
- (52) He \_\_\_\_\_ to the station at 7 a.m. every day.
- (A) has ran
  - (B) has running
  - (C) running
  - (D) runs
- (53) My father \_\_\_\_\_ me this fountain pen.
- (A) gave
  - (B) gave for
  - (C) give
  - (D) give to
- (54) I will never forget \_\_\_\_\_ at the University of Aizu for the past four years.
- (A) studied
  - (B) studying
  - (C) to study
  - (D) to studying

- (55) I \_\_\_\_\_ to play tennis when I was young.
- (A) am used
  - (B) am using
  - (C) use
  - (D) used
- (56) I was \_\_\_\_\_ to be at the soccer game.
- (A) excite
  - (B) excited
  - (C) exciting
  - (D) to excite
- (57) If I \_\_\_\_\_ you, I wouldn't try such a risky game.
- (A) am
  - (B) be
  - (C) is
  - (D) were
- (58) He failed the exam, and he should have seen that \_\_\_\_\_.
- (A) came
  - (B) coming
  - (C) could have come
  - (D) to come
- (59) I can give you a ride, \_\_\_\_\_ you want to walk.
- (A) and
  - (B) if
  - (C) otherwise
  - (D) unless

(60) She looks very \_\_\_\_\_.

(A) sad

(B) sadden

(C) sadly

(D) sadness

**第4問** 次の英文を読んで、問い(61)～(80)について最も適切な答えを、(A)～(D)の中から一つずつ選びなさい。

この部分に掲載されている文章については、著作権上の問題から公表することができません。

- (61) Which of the following statements is true?
- (A) Some parts of the moon's surface are covered with water.
  - (B) The LADEE spacecraft first discovered that there is water on the moon.
  - (C) The LADEE spacecraft landed successfully on the moon.
  - (D) The mission of the LADEE spacecraft was moon exploration.
- (62) Which of the topics below is most likely to follow the text above?
- (A) dust environment on the moon
  - (B) other moon exploration missions
  - (C) design of the LADEE spacecraft
  - (D) water on the moon

この部分に掲載されている文章については、著作権上の問題から公表することができません。

- (63) Which of the following caused plants to turn brown?
- (A) extraordinary winter weather
  - (B) freeze resistance
  - (C) local events
  - (D) some parts of the Arctic
- (64) Which of the following statements is NOT true?
- (A) Plants in the Arctic area brought about the unusual weather condition.
  - (B) Some plants in the tundra region turned brown.
  - (C) The combination of warm weather and rainfall is not good for tundra plants.
  - (D) The environment in the Arctic has been changing due to global warming.

この部分に掲載されている文章については、著作権上の問題から公表することができません。

- (65) What is the main purpose of the text?
- (A) explaining the food likes and dislikes of children
  - (B) giving advice to parents about feeding children vegetables
  - (C) giving an interesting recipe to the reader
  - (D) showing why eating vegetables is healthy
- (66) What is implied by the text above?
- (A) Children always enjoy eating spinach sandwiches.
  - (B) Introducing vegetables in other food is a good strategy.
  - (C) No children like eating green vegetables.
  - (D) Some children love eating green vegetables.



Cornish wrestling is a traditional sport in South West England that helps develop physical flexibility and strength. While less common than previously, young children still wrestle at elementary schools in the summer. In a wrestling match, two people enter into a circle drawn with wood chips, place their hands on each other's shoulders and try to push their opponent out of the ring.

(67) What best describes a benefit of Cornish wrestling?

- (A) Children find it enjoyable.
- (B) It continues the tradition.
- (C) It develops confidence.
- (D) It helps improve fitness.

(68) What is NOT implied by the text?

- (A) Being strong helps wrestlers.
- (B) The loser is pushed from the circle.
- (C) The wrestlers draw the ring before entering.
- (D) Two wrestlers are in physical contact.

この部分に掲載されている文章については、著作権上の問題から公表することができません。

- (69) Which of the following statements is true?
- (A) People might be injured but not die due to tornadoes.
  - (B) Some tornadoes are not very destructive.
  - (C) Some urban areas are hit by tornadoes many times.
  - (D) Tornadoes are frequently caused by thunderstorms.
- (70) Which of the following is NOT a characteristic of tornadoes?
- (A) always occurring with rain
  - (B) reaching the ground
  - (C) rotating wind
  - (D) weather phenomenon
- (71) The size of the damage by a tornado differs depending on:
- (A) when it was formed.
  - (B) when it hits.
  - (C) where it was formed.
  - (D) where it hits.

この部分に掲載されている文章については、著作権上の問題から公表することができません。

- (72) Which of the following statements is true about entrepreneurial passion (EP)?
- (A) Dr. Cardon concluded that EP is not measurable.
  - (B) Dr. Cardon is the first researcher who defined EP.
  - (C) EP was not studied much.
  - (D) Many researchers agree on Dr. Cardon's meaning of EP.
- (73) Dr. Cardon believed that entrepreneurial passion (EP) can be:
- (A) easily quantified.
  - (B) generally accepted.
  - (C) measured.
  - (D) researched quickly.
- (74) Which of the topics below is most likely to follow the text above?
- (A) different types of passionate behavior
  - (B) how entrepreneurs use their passion in business
  - (C) how entrepreneurial passion positively influences public speaking
  - (D) other business-related research by Dr. Cardon

この部分に掲載されている文章については、著作権上の問題から公表することができません。

- (75) Which of the following is true about George Washington?
- (A) He was called “Father of America” at 18.
  - (B) He settled in Virginia around 1732.
  - (C) He was born around 1732.
  - (D) He went to school in 1750.
- (76) Which of the following is true?
- (A) He became interested in politics while farming in Virginia.
  - (B) He became interested in politics after working in business.
  - (C) Politics was Washington’s main interest in life.
  - (D) Washington continued farming after becoming interested in politics.
- (77) Which of the following topics would most likely follow the text above?
- (A) Washington’s training background
  - (B) Washington’s business activities
  - (C) Washington’s family life
  - (D) Washington’s political career

この部分に掲載されている文章については、著作権上の問題から公表することができません。

- (78) According to the text, how large was the crater?
- (A) 45 kilometers wide
  - (B) 50-100 meters wide
  - (C) miles wide
  - (D) unknown
- (79) Which of the following statements is true?
- (A) A fireball was seen in 1920.
  - (B) An unidentified object was investigated in 1920.
  - (C) In 2008, the cause was still unknown.
  - (D) People were shocked by the explosion.
- (80) Why was no one hurt?
- (A) No one was living where the explosion occurred.
  - (B) People were able to escape.
  - (C) People stayed indoors at the time.
  - (D) The explosion occurred in the air.



**第5問** 次の英文を読んで、(81)～(85)・(91)～(95)の、それぞれの空欄に入る最も適切なものを、(A)～(D)の中から一つずつ選びなさい。

また、問い(86)～(90)・(96)～(100)について、英文の内容から最も適切な答えを、(A)～(D)の中から一つずつ選びなさい。

Many Japanese people who are attempting to improve their English have trouble with pronunciation. Some study for many years but still have difficulty saying even very (81) words. When speaking English with people from other countries, they cannot be understood easily. There are many reasons for these pronunciation problems, but two of them are more significant than the others.

The primary reason is that Japanese people often use “katakana English”, which means that they end up saying more sounds than are necessary. The Japanese language has five vowels: *a*, *i*, *u*, *e*, and *o*, and when people speak “katakana English”, they insert or add *u* or *o* to English words. (82), the word “and”, which happens to be a very common English word, is pronounced “ando” by many Japanese. This creates (83) for listeners who are trying to understand the words being spoken, because they hear more sounds and syllables than there should be.

(84) the above, another major cause of difficulty pronouncing English is word stress. Stressed words in a sentence are the words that stand out more than the others. In English, this may be signaled by saying a word louder or at a higher pitch. People also stress words in English by pronouncing them longer than other words. In Japanese, on the other hand, words have something called “pitch accent”, which is not the same as English word stress.

But in the end, no matter what the reason is for struggling with English pronunciation, something to (85) is that it is not necessary to sound like a native speaker. Instead, the most important point is to make sure your pronunciation is clear enough to communicate smoothly with others.

- (81) (A) complex  
(B) difficult  
(C) simple  
(D) understanding
- (82) (A) Altogether  
(B) For example  
(C) Like this  
(D) Such as
- (83) (A) answers  
(B) efforts  
(C) problems  
(D) solutions
- (84) (A) Because of  
(B) In addition to  
(C) In order to  
(D) None of
- (85) (A) forget  
(B) keep in mind  
(C) solve  
(D) talk about
- (86) How many reasons are given for English pronunciation problems?  
(A) none  
(B) two  
(C) three  
(D) many

- (87) What are two ways to stress a word in English?
- (A) say a word louder or longer
  - (B) say a word longer or with a lower pitch
  - (C) say a word louder or using katakana
  - (D) say a word with a higher pitch or like a native speaker
- (88) What is “ando” in the second paragraph?
- (A) a very common English word
  - (B) a mistake by the writer
  - (C) the katakana pronunciation of the English word “and”
  - (D) the old spelling of the English word “and”
- (89) What does the underlined word “Some” (in the first paragraph) refer to?
- (A) a little bit of
  - (B) Japanese people
  - (C) pronunciation
  - (D) words
- (90) What is the main purpose of this text?
- (A) to demonstrate the difference between katakana and English
  - (B) to explain why Japanese people have trouble with English pronunciation
  - (C) to say that Japanese people need to sound like native English speakers
  - (D) to show that English pronunciation is not important



In the north of England, the number of teenage (91) fans has increased in recent years. The public housing areas near the stadium of Manchester United provide the perfect place for these supporters to meet up. Here, bored young football supporters meet, have fun, and occasionally get into trouble. At times, the young troublemakers do something unexpected. For example, on April 1, a gang of teenage boys was playing as usual before their attention turned to a dog. They targeted Dawson, a black dog with only three legs.

Although the teen gang didn't plan their actions, what they did was surprising. They caught the dog, held it down on the floor and spray painted its body red and its legs white, the colors of their favorite football team. The dog (92) to escape, but could not.

As soon as they had finished painting it, two police officers arrived and shouted at the boys to stop. The youngsters panicked, picked up the empty paint cans and ran away before the police could catch them. For many animal lovers, it made them question why there are such people in our society.

Dennis Menace, Professor in Sociology at City University, has been researching youth gangs and (93), "I understand their background, they lack family support, and so increasingly more teenagers are joining sports gangs or even criminal gangs. The senior gang members are able to control the newer gang members and get them to do such foolish things."

Regardless of the problems, these teenagers say they feel the need to belong to a group of people their own age. Many children feel that their parents do not spend enough time with them. They feel alone at home, which often forces (94) to find friendship elsewhere.

Overall, we must address the problems young people face and encourage (95) to take more responsibility for bringing up their children, spend more time with them and provide good role models. Teenagers with a strong positive network surrounding them are less likely to commit such awful acts.

- (91) (A) child  
(B) enthusiasm  
(C) football  
(D) open
- (92) (A) managed  
(B) tried  
(C) use  
(D) used
- (93) (A) asked  
(B) commented  
(C) knows  
(D) terrorism
- (94) (A) kids  
(B) parents  
(C) strangers  
(D) teachers
- (95) (A) kids  
(B) parents  
(C) strangers  
(D) teachers
- (96) What does the underlined word “Here” (in the first paragraph) refer to?  
(A) in the stadium  
(B) London  
(C) public housing areas  
(D) this article

- (97) What does the underlined word “it” (in the third paragraph) refer to?
- (A) painting an animal
  - (B) playing football in the street
  - (C) police officers shouting
  - (D) running away from the police
- (98) Which cause is mentioned for teenagers joining gangs?
- (A) problems at home
  - (B) problems at school
  - (C) problems with friends
  - (D) problems with money
- (99) Which of the following is NOT mentioned about the problem of gangs?
- (A) an example
  - (B) the cause
  - (C) the definition
  - (D) the solution
- (100) What is the purpose of this article?
- (A) to get parents to take responsibility
  - (B) to help gangs get more members
  - (C) to make readers laugh
  - (D) to tell a story about a dog