

2022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ったときは、手を挙げて係員に申し出てください。
- 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してください。
- 5 解答は必ず各問題別の解答用紙の所定の欄に記入してください。
- 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。その他は持ち帰ってください。

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(1)から(4)までの問いに答えよ。また、(5)と(6)の空欄をうめよ。

(1) 不等式 $8^x - 4^{x+1} + 2^x + 6 > 0$ を解け。

(2) 整式 $P(x)$ を $x^2 - 1$ で割った余りが $2x + 1$, $x + 2$ で割った余りが -2 のとき, $P(x)$ を $x^2 + x - 2$ で割った余りを求めよ。

(3) 2つの正の整数 a, b の最大公約数を $GCD(a, b)$, 最小公倍数を $LCM(a, b)$ と表す。このとき, 空欄に適するものを下のAからDのうちから選べ。

(i) $GCD(a, b) = 1$ であることは, $LCM(a, b) = ab$ であるための

(ii) ab が素数であることは, $a = 1$ もしくは $b = 1$ であるための

A 「必要条件であるが十分条件ではない」

B 「十分条件であるが必要条件ではない」

C 「必要十分条件である」

D 「必要条件でも十分条件でもない」

(4) 極限值 $\lim_{n \rightarrow \infty} \sum_{k=1}^n \log \left(\frac{n+k}{n} \right)^{\frac{1}{n}}$ を求めよ。

(5) $I_n = \int_0^1 (1-x^2)^n dx$ ($n = 1, 2, \dots$) とおくとき, 部分積分を用いることにより, I_{n+1} と I_n の関係式 $I_{n+1} = \text{ヘ} I_n$ が得られる。

(6) 複素数 α は, $\alpha^2 - \alpha + 1 = 0$ を満たし, 虚部が正であるとする。このとき, $\sum_{k=0}^{20} \alpha^k$ の値は + i である。ただし, i は虚数単位とし, 空欄には実数が入る。

(計 算 用 紙)

2 四面体 OABC において、3 点 O, A, B を通る平面を α とし、点 C から α へ引いた垂線と α との交点を H とする。 $\vec{OA} = \vec{a}$, $\vec{OB} = \vec{b}$, $\vec{OC} = \vec{c}$ とし、

$$|\vec{a}| = |\vec{b}| = |\vec{c}| = 1, \quad \vec{a} \cdot \vec{b} = \frac{1}{3}, \quad \vec{b} \cdot \vec{c} = \frac{2}{3}, \quad \vec{c} \cdot \vec{a} = 0$$

であるとするとき、以下の空欄をうめよ。

(1) $\triangle OAB$ の面積は である。

(2) \vec{OH} を \vec{a} , \vec{b} で表すと $\vec{OH} =$ $\vec{a} +$ \vec{b} である。

(3) 四面体 OABC の体積は である。

(計 算 用 紙)

3 当たりくじ3本を含む10本のくじを、AとBの2人がこの順に1本ずつ引く。ただし、引いたくじはもとに戻さない。この操作をくじがなくなるまで繰り返すとき、以下の空欄をうめよ。

(1) Aが3本の当たりくじを引く確率は である。

(2) Aが2本、Bが1本の当たりくじを引く確率は である。

(3) Aが先に2本の当たりくじを引き、その後にBが1本の当たりくじを引く確率は である。

(4) 最初に当たりくじを引くのがBである確率は である。

(5) Bが少なくとも1本の当たりくじを引いたとき、最初に当たりくじを引いたのがBであった確率は である。

(計 算 用 紙)

4 数列 $\{a_n\}, \{b_n\}$ を次で定める。数直線上に、実数 a_n, b_n に対応する点 A_n, B_n をとる。線分 $A_n B_n$ を $3:1$ に内分する点を A_{n+1} 、線分 $A_n B_n$ を $3:1$ に外分する点を B_{n+1} として、その座標をそれぞれ a_{n+1}, b_{n+1} とする ($n = 1, 2, 3, \dots$)。 $a_1 = 0, b_1 = 1$ とするとき、以下の空欄をうめよ。

(1) $a_2 = \boxed{\text{イ}}$, $b_2 = \boxed{\text{ロ}}$ である。

(2) 数列 $\{c_n\}$ を $c_n = b_n - a_n$ で定めるとき、 c_{n+1} を c_n を用いて表すと、
 $c_{n+1} = \boxed{\text{ハ}}$ である。

(3) a_n を n を用いて表すと $a_n = \boxed{\text{ニ}}$ である。

(計 算 用 紙)

5

関数 $f(x) = \frac{1}{1+x^2}$ を考える。曲線 $y=f(x)$ を C とし、 C の2つの変曲点の x 座標を a, b ($a < b$) とする。 C と x 軸および2直線 $x=a, x=b$ で囲まれた図形を A とする。以下の問いに答えよ。(結論に至る過程も記述すること。)

- (1) A の面積を求めよ。
- (2) A を x 軸のまわりに1回転してできる立体の体積を求めよ。

(計 算 用 紙)

6

数列 $\{a_n\}$ が,

$$a_1 = 1 - \frac{1}{2^2}, \quad a_{n+1} = a_n \cdot \left(1 - \frac{1}{(n+2)^2}\right) \quad (n = 1, 2, 3, \dots)$$

で定められるとき、以下の問いに答えよ。

(1) 数列 $\{a_n\}$ の一般項 a_n を推定し、それが正しいことを数学的帰納法を用いて証明せよ。

(2) 無限級数 $\sum_{n=1}^{\infty} \log\left(1 - \frac{1}{(n+1)^2}\right)$ を (1) の結果を用いて求めよ。

(結論に至る過程も記述すること。)

(計 算 用 紙)

(計 算 用 紙)

2022 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ったときは、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)のように問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)	(A) (B) ● (D)

- 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) Teacher: _____

Student: I have a sharp pain in my neck.

- (A) What is in your neck?
- (B) What's the matter?
- (C) What symptoms have presented?
- (D) Where does it matter?

(2) Friend A: Would you like to go for a walk?

Friend B: _____

- (A) I don't agree.
- (B) No, I wouldn't walk.
- (C) Yes, I also think so.
- (D) Yes, I'd love to.

(3) Father: Aren't you going to school today?

Daughter: _____

- (A) How about you?
- (B) I didn't go yesterday.
- (C) No, it's a regular school day.
- (D) Yes, but not until the afternoon.

(4) Customer: Do you have this shirt in brown?

Employee: _____

- (A) I'm sorry, we only have it in brown.
- (B) Just a moment. I'll check if we do.
- (C) No, it's not brown. It's black.
- (D) Yes, we have one white shirt left.

(5) Student A: How do you find your computer class? I heard it's harder than mine.

Student B: _____

- (A) Go down this hallway and turn left at the end.
- (B) I heard that it's quite easy from my friend.
- (C) It is hard, but I'm really enjoying learning about AI.
- (D) Yeah, it's really difficult to find the computer room.

(6) Mari: _____

Takeshi: Yeah! I like it a lot too.

- (A) I hate that color.
- (B) That's one of my favorites.
- (C) This class is always boring!
- (D) Which one do you prefer?

(7) Son: _____

Father: OK, that sounds good.

- (A) Do you think I've improved at the violin?
- (B) I'll do the dishes after I finish my homework.
- (C) I'm sorry that I forgot to do the dishes.
- (D) Is the music too loud for you?

(8) Customer: Can I have a medium iced coffee with some milk and no sugar?

Waiter: _____

- (A) But you promised to buy me a matcha latte.
- (B) Do you want that in a cup or on a plate?
- (C) I'm sorry. We have only hot coffee right now.
- (D) It's possible, but too much sugar will kill the coffee flavor.

(9) Meg: Excuse me, do you have the time?

Harry: _____

(A) It's just before half past three.

(B) Let me check my diary.

(C) No, but I have some mints.

(D) Sorry. I am busy all day.

(10) Mother: _____

Daughter: He is a bit strict, but he is very funny.

(A) What does he like?

(B) What does he look like?

(C) What is he like?

(D) What is his laugh like?

第2問 次の英文(11)~(30)の下線部の本文中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) Information storage is getting cheaper and cheaper.

- (A) collection
- (B) space
- (C) measurement
- (D) production

(12) There was a heap of papers in the corner of the room.

- (A) box
- (B) lack
- (C) pair
- (D) stack

(13) In that book, how is the representation of women?

- (A) absence
- (B) description
- (C) gift
- (D) repetition

(14) The project is in the second phase of planning.

- (A) discussion
- (B) stage
- (C) turn
- (D) way

(15) Many people don't chew enough before swallowing.

- (A) bite
- (B) breathe
- (C) eat
- (D) taste

(16) "I won the race," the boy exclaimed.

- (A) answered
- (B) asked
- (C) whispered
- (D) shouted

(17) It is a little too chilly for me.

- (A) bland
- (B) cold
- (C) hot
- (D) spicy

(18) His test score is literally one in a million.

- (A) almost
- (B) luckily
- (C) never
- (D) truly

(19) The computers work in parallel, speeding it up.

- (A) quickly
- (B) quietly
- (C) randomly
- (D) simultaneously

- (20) When I saw the lightning, I started to count.
- (A) bright flash in the sky
 - (B) electric lamp
 - (C) spark from a plug
 - (D) truth
- (21) There was some unaccompanied baggage that had not been claimed.
- (A) child
 - (B) luggage
 - (C) prize
 - (D) ticket
- (22) What is the formula to convert miles to kilometers?
- (A) ruin
 - (B) rule
 - (C) rumor
 - (D) rush
- (23) That green statue over there is a symbol of liberty.
- (A) free choice
 - (B) free education
 - (C) free goods
 - (D) free travel
- (24) Taking away the video game is a strict punishment.
- (A) behavior
 - (B) loss
 - (C) penalty
 - (D) result

- (25) The data complicated the scientist's plans.
- (A) changed
 - (B) clarified
 - (C) confused
 - (D) simplified
- (26) It blew up and everyone started to run in different directions.
- (A) became angry
 - (B) exploded
 - (C) gained in weight
 - (D) decreased
- (27) It seems that the situation is dynamic.
- (A) constantly changing
 - (B) difficult to understand
 - (C) easy to predict
 - (D) loudly exploding
- (28) The fine detail in the painting was elegant.
- (A) beautiful and delicate
 - (B) beautiful and surprising
 - (C) difficult and attractive
 - (D) difficult and rare
- (29) The newspaper editor worked all night to make sure the deadline was met.
- (A) person who selects stories
 - (B) person who writes stories
 - (C) person who tells stories
 - (D) person who illustrates stories

30) Live streams on various internet platforms have popularized chess.

(A) flows of electricity

(B) flows of users

(C) flows of data

(D) flows of water

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) Once upon a time, when an old woman was washing clothes at the river,
_____ came floating down.

- (A) a peach
- (B) and peach
- (C) peach
- (D) which peach

(32) The company _____ the rent.

- (A) has paid
- (B) has paying
- (C) has pay
- (D) will paid

(33) We should change the menu depending _____ the customer.

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

(34) My teacher promises _____ the mistake as soon as she can.

- (A) correcting
- (B) corrects
- (C) to correct
- (D) will correct

- (35) I _____ on this assignment for two weeks now.
- (A) am working
 - (B) have been working
 - (C) had been working
 - (D) worked
- (36) What is _____ teachers, when we have computers to teach us?
- (A) the use of
 - (B) the using of
 - (C) to use
 - (D) using
- (37) It _____ true if the government is saying it.
- (A) must
 - (B) must be
 - (C) must being
 - (D) must have
- (38) The gift _____ to thank the teacher for her hard work.
- (A) gave
 - (B) give
 - (C) has given
 - (D) was given
- (39) Sue felt _____ during the meeting.
- (A) bore
 - (B) bored
 - (C) bores
 - (D) boring

- (40) My students are all _____ readers when they are studying.
- (A) careful
 - (B) carefully
 - (C) carefulness
 - (D) caretake
- (41) _____ players on my soccer team enjoy practicing hard.
- (A) Almost
 - (B) Every
 - (C) Most
 - (D) Much
- (42) The building _____ the test will be taken is quite small.
- (A) that
 - (B) where
 - (C) which
 - (D) who
- (43) I like _____ fishing with my friends in the summer.
- (A) go
 - (B) to go
 - (C) to go to
 - (D) to going
- (44) The document _____ this process is in the laboratory.
- (A) in which explains
 - (B) it explains
 - (C) that explain
 - (D) that explains

- (45) Next, add _____ salt to the soup.
- (A) a few
 - (B) a little
 - (C) few
 - (D) little
- (46) Our teacher said that there _____ an exam the following Monday, but there wasn't.
- (A) is
 - (B) are
 - (C) will be
 - (D) would be
- (47) _____ seen such a splendid piece of art.
- (A) I ever have rarely
 - (B) I have ever rarely
 - (C) Rarely have I ever
 - (D) Rarely I have ever
- (48) We shouldn't really go camping this weekend _____ the weather is good.
- (A) about
 - (B) least
 - (C) with
 - (D) unless
- (49) I would _____ if you could check this for me.
- (A) appreciate it
 - (B) appreciative
 - (C) be appreciated
 - (D) be appreciative it

- (50) We've never seen _____ face.
- (A) each other
 - (B) each other's
 - (C) ourselves
 - (D) ourselves'
- (51) I _____ about the environment.
- (A) am concerned
 - (B) am concerning
 - (C) concern
 - (D) concerned
- (52) During the last World Cup, we had a chance to see the Japan team _____ their best.
- (A) at
 - (B) by
 - (C) in
 - (D) on
- (53) These days, more and more people want their houses to be built of _____.
- (A) wood
 - (B) wooden
 - (C) woods
 - (D) wood's
- (54) If it is not raining, I _____ there.
- (A) am being
 - (B) have been
 - (C) was
 - (D) will be

- (55) My parents said they'd be back in _____ time, so we should clean up soon.
- (A) no
 - (B) non
 - (C) none
 - (D) not
- (56) Our special guest will be arriving _____ the office in ten minutes.
- (A) at
 - (B) between
 - (C) by
 - (D) into
- (57) I _____ a number. Can you guess it?
- (A) think
 - (B) think to
 - (C) am thinking
 - (D) am thinking of
- (58) If I _____ from the future, I would bring a lot of new devices.
- (A) am
 - (B) are
 - (C) were
 - (D) would be
- (59) I wondered how I could _____ her better.
- (A) get knowing
 - (B) getting knowing
 - (C) getting to know
 - (D) get to know

(60) The pain in my throat made _____ very difficult.

(A) me speaking

(B) me to speak

(C) my speak

(D) my speaking

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。

Adapted from: Jeffries, L and Mikulecky, B. S. (2012) More Reading Power 3. Pearson Education.

- (61) The elephants have bells around their necks because _____.
- (A) Indian farmers need to show who the owners are
 - (B) Indian farmers want to avoid elephants
 - (C) the elephants can't eat plantations
 - (D) the noise alerts farmers when the elephants try to eat bananas
- (62) What do the elephants do with the bells?
- (A) They fill them with mud.
 - (B) They secretly hide them in mud.
 - (C) They stamp on and crush them.
 - (D) They wear them before going to the plantation.

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。

Adapted from: Harari, Y. N. (2015). Sapiens: A Brief History of Humankind. Harper.

- (63) Before the Scientific Revolution, most humans believed that the Golden Age _____.
- (A) would arrive with the Scientific Revolution
 - (B) would come if we overcome the fundamental problems
 - (C) was in the past
 - (D) would never come
- (64) Which of the following is true?
- (A) After the revolution, the world could finally reach a stable stage.
 - (B) People thought even religion could not solve the fundamental problems.
 - (C) The goal of the revolution was just to improve small things in our daily lives.
 - (D) The number of human cultures did not increase much until the revolution.
- (65) Which of the following topics is most likely to follow this text?
- (A) why God failed to solve the fundamental problems
 - (B) how human cultures could deal with significant challenges
 - (C) what caused the world's fundamental problems
 - (D) how we improved small things in our lives

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。

Adapted from <https://www.britannica.com/biography/Helen-Keller>

- (66) What is implied by the text above?
- (A) Keller had trouble with her teacher.
 - (B) Keller was intelligent.
 - (C) Keller did not enjoy learning.
 - (D) Blind people often did not receive an education.
- (67) Which of the following is NOT known from the text above?
- (A) Keller died in 1936.
 - (B) Keller was ill as a child.
 - (C) Keller received an education.
 - (D) Keller's teacher died in the 1930s.
- (68) Which of the following topics would most likely follow the text above?
- (A) details of Keller's illness
 - (B) Keller's educational achievements
 - (C) Keller's political career
 - (D) details of the teacher's death

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。

Adapted from: Jez. (2018, August 2). Why is anime so popular?

<https://www.thejapaneseshop.co.uk/blog/why-is-anime-so-popular/>

- (69) Which of the following is NOT known from the text above?
- (A) Anime is popular in the UK.
 - (B) Anime has recently increased in popularity.
 - (C) Manga is popular in the USA.
 - (D) Manga is popular with Japanese living overseas.
- (70) Which of the following is NOT true?
- (A) Anime storylines are powerful.
 - (B) It is easy to guess the end of an anime series.
 - (C) Anime is connected to the Japanese identity.
 - (D) Anime is for a wide variety of people.

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。

Adapted from: Wesley, Y. (2021). PlayStation just had its best ever financial year as PS5 sales hit 7.8 m. <https://www.eurogamer.net/articles/2021-04-28-playstation-just-had-its-best-ever-financial-year-as-ps-5-sales-hit-7-8-m>

- (71) Which of the following limited the sales increase?
- (A) microchips
 - (B) games
 - (C) supply
 - (D) extra features
- (72) How long did it take Sony to sell 7.8 million PlayStation 5s?
- (A) one month
 - (B) three months
 - (C) one year
 - (D) five months
- (73) Which of the following is NOT true?
- (A) The PS5 is a successful product.
 - (B) The PS5 has limited availability.
 - (C) The PS5 is available at most retailers.
 - (D) The PS5 launched in November.

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。

Adapted from: Oka, M.; Tsutsui, M.; Kondo, J. (2009). Tobira: Gateway to Advanced Japanese: Learning through Content and Multimedia. Kuroshio.

- (74) What is the main purpose of the text?
- (A) to give language learning advice
 - (B) to explain the purpose of the textbook
 - (C) to motivate the reader to study Japanese
 - (D) to explain what effective communication is
- (75) Who is the textbook NOT targeted at?
- (A) intermediate level learners of Japanese
 - (B) learners with little experience of Japanese
 - (C) learners with some knowledge of Japanese culture
 - (D) learners who can read some kanji
- (76) Which of the following is true about the textbook?
- (A) It focuses mainly on communicating well.
 - (B) Its two main goals are grammar and vocabulary.
 - (C) It introduces kanji reading to the learner.
 - (D) It focuses on general Japanese improvement.

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。

Adapted from: Kateman, B. (2017). The Reducetarian Solution. Penguin Random House.

- (77) What is the main purpose of the text?
- (A) advising people to become vegetarian
 - (B) advising people to change their eating habits
 - (C) warning people about the risk of producing meat
 - (D) warning people about the impact of meat consumption on our planet
- (78) Which of the following is true?
- (A) On average, people eat around 200 pounds of meat annually in the world.
 - (B) People are unsure whether to reduce their meat consumption.
 - (C) There is a connection between eating meat and diabetes.
 - (D) It is not important to know the reason for high meat consumption.

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。

*Adapted from: Lynn, B. (2021, April 28) More US companies now offering 3D printed homes.
<https://learningenglish.voanews.com/a/more-us-companies-now-offering-3-d-printed-homes/5869993.html>*

- (79) What does “helping solve the shortage of affordable housing” imply?
- (A) 3D printed homes can be purchased by low-income families.
 - (B) 3D printed houses last longer than traditionally built houses.
 - (C) 3D printers can produce high-tech homes.
 - (D) 3D printers can produce bigger homes.
- (80) Which of the following is true?
- (A) 3D printed homes seem popular.
 - (B) 3D printers are operated with solar power.
 - (C) 3D printers are used because there is a shortage of human builders.
 - (D) The safety of 3D printed homes is guaranteed.

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。

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。

Adapted from: "China's Mars Rover Mission Lands on the Red Planet", New York Times, May 14, 2021, URL: <https://www.nytimes.com/2021/05/14/science/china-mars.html>

- 81) (A) accident
(B) achievement
(C) extreme
(D) incident

- 82) (A) disaster
(B) release
(C) mission
(D) news

- 83) (A) challenger
(B) launcher
(C) researcher
(D) scientist

- 84) (A) past
(B) important
(C) narrow
(D) usual

- 85) (A) heard
(B) known
(C) read
(D) said

- 86) How many nations have completed a mission to Mars?
(A) one
(B) two
(C) three
(D) unknown

- 87) State media said the landing happened on Saturday and not Friday because _____.
- (A) the landing occurred on Saturday morning as calculated from America
 - (B) the landing occurred on Saturday morning as calculated from China
 - (C) the landing occurred on Saturday morning as calculated from Mars
 - (D) the news was incorrect
- 88) A NASA representative stated the landing would _____.
- (A) help improve overall understanding of Mars
 - (B) help improve understanding of the moon
 - (C) help improve understanding of some Martian rocks
 - (D) collect four pounds of Martian rocks and soil
- 89) How does the passage describe Chinese state media reports about the landing?
- (A) State media normally publishes a lot about these events.
 - (B) State media normally does not publish a lot about these events.
 - (C) State media reported the Mars mission closely before the landing.
 - (D) State media reported the landing live on social media.
- 90) What is the main purpose of this news story?
- (A) to inform readers about the planet Mars
 - (B) to explain the process of reporting science news in China
 - (C) to inform readers of the progress of China's space program
 - (D) to inform readers of the progress of China's moon mission

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。

Adapted from: "Japan to build new icebreaker for researching Arctic region", Asahi Shimbun, April 12, 2021, URL:<http://www.asahi.com/ajw/articles/14329185>

- 91) (A) accomplishments
(B) conflict
(C) research
(D) resources
- 92) (A) common
(B) effective
(C) melting
(D) rising
- 93) (A) denies
(B) fears
(C) hopes
(D) wonders
- 94) (A) but not
(B) except
(C) throughout
(D) including
- 95) (A) weight
(B) which
(C) worth
(D) width
- 96) Which statement is true?
(A) The icebreaker Shirase can move through ice 1.5 meters thick.
(B) Construction of Shirase will begin in 2021.
(C) The new icebreaker will move through ice 1.5 meters thick.
(D) The new icebreaker will weigh 128 tons.

- (97) Which statement is NOT true for increased Arctic exploration?
- (A) All possible winter observations have already been made.
 - (B) Countries are competing for access to resources.
 - (C) New scientific observations can be made.
 - (D) Reduced sea ice helps people access new resources.
- (98) Which of the following phrases best describes what an icebreaker is?
- (A) an Antarctic research project
 - (B) a global trade route
 - (C) an underwater vehicle
 - (D) a research vessel
- (99) How will the new icebreaker be used?
- (A) for research in the Antarctic Sea
 - (B) to stop other countries from launching their own icebreakers
 - (C) to study the effects of global warming in the Arctic
 - (D) to study the effects of global warming in Japan
- (100) When is the new icebreaker likely to start operation?
- (A) between 2021 and 2026
 - (B) from 2026
 - (C) before 2026
 - (D) winter in 2021