英　　語

2025年度　理学部　一般選抜試験

受験番号		氏 名	

【注　意　事　項】

1　**試験監督による「解答始め」の指示があるまで，この問題冊子の中を見てはいけません。**

2　**試験時間は60分です。**

3　**この問題冊子は１ページから16ページまであります。**

4　**解答は解答用紙（マークシート）の所定欄に記入しなさい。**

5　**解答は所定欄に鉛筆で濃くはっきりとマークしなさい。**その際，ボールペン・サインペン・万年筆等は使用してはいけません。その他マークの仕方に関しては，解答用紙（マークシート）の注意事項をよく読みなさい。

6　**試験監督の指示に従って問題冊子に受験番号および氏名を記入しなさい。**

7　**試験監督の指示に従って，解答用紙（マークシート）に氏名，フリガナおよび受験番号を記入し，さらに受験番号をマークしなさい。正しくマークされていない場合は，採点できないことがあります。**

8　解答用紙（マークシート）は折り曲げたり，メモやチェック等で汚したりしないように注意しなさい。マークを訂正する場合は，消しゴムできれいに消し，中途半端な消し方をしないこと。不正確なマークは採点の対象外となります。解答用紙（マークシート）に消しゴムのかすが残っていると，採点が不可能となる場合があります。解答用紙の両面の消しゴムのかすは，回収前に取り除いておきなさい。

9　問題冊子の余白は適宜使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。

10　試験中に問題冊子の印刷不明瞭，ページの落丁・乱丁および解答用紙（マークシート）の汚れ等に気づいた場合は，手を高く上げて試験監督に知らせなさい。

11　**試験終了後，問題冊子と解答用紙（マークシート）はともに回収します。試験室から持ち出した場合は，不正行為となります。**

余　　白

［Ⅰ］ 次の英文を読み，下記の設問に答えなさい。

A data set is (　1　) if some of the observations are missing. Data may be randomly missing, for reasons entirely unrelated to the study. For example, (　2　) a chemist dropped a test tube, or a patient in a clinical trial of a skin cream missed an appointment because of a delayed plane, or someone moved house and so could not be contacted for a follow-up questionnaire. But the fact that a data item is missing can also in itself be informative. For example, people completing an application form or questionnaire may wish to conceal something, and, rather than lie directly, may simply not answer that question. Or (　2　) only people with a particular view bother to complete a questionnaire. For example, if customers are asked to complete forms evaluating the service they have received, those with axes to grind* may be more inclined to complete (6) them. If this is not recognized in the analysis, a distorted view of customers' opinions will result. Internet surveys are especially vulnerable to this kind of thing, with people often simply being invited to respond. There is no control over how representative the respondents are of the (　3　) population, or even if the same people respond multiple times.

Other examples of this sort of "selection bias" are many, and can be quite subtle. For example, it is not uncommon for patients to drop out of clinical trials of medicines. Suppose that patients who recovered while using the medicine failed to return for their next appointment, because they felt it was unnecessary (since they had recovered). Then we could easily draw the conclusion that the medicine did not work, since we would see only patients who were still sick.

(7) A classic case of this sort of bias arose when a poll (　4　) predicted that Roosevelt would be overwhelmingly defeated in the 1936 US presidential election. Unfortunately, the questionnaires were mailed only to people who had both telephones and cars, and in 1936 these people were wealthier on average than the (　3　) population. The people sent questionnaires were not properly representative of the (　3　) population. As it turned out, the majority of the others supported Roosevelt.

Another, rather different kind of case of inaccurate conclusions arising from failure to take account of missing data has become a minor statistical classic. This is the case of the Challenger space shuttle, which blew up on launch in 1986, killing everyone on board. The night before the launch, a meeting was held to discuss whether to go ahead, since the forecast temperature for the launch date was exceptionally low. Data

were produced, showing that there was apparently no relationship between air temperature and damage to certain seals on the booster rockets. However, the data were (　1　), and did not include all those launches involving no damage. This was unfortunate because the launches when no damage occurred were mostly made at higher temperatures. A plot of *all* of the data shows a clear relationship, with damage being more likely at lower temperatures.

As a final example, people applying for bank loans, credit cards, and so on, have a "credit score" calculated, which is essentially an estimate of the probability that they will fail to repay. These estimates are derived from statistical models built using data from previous customers who have already repaid or failed to repay. But there is a problem. Previous customers are not representative of all people who applied for a loan. After all, previous customers were chosen because they were thought to be good risks. Those applicants thought to be poor risks and unable to repay their debts (8) would not have been accepted in the first place, and would therefore not be included in the data. Any statistical model which fails to take account of this (　5　) of the data set is likely to lead to mistaken conclusions. In this case, it could well mean the bank collapsing.

注：*axe to grind 「個人的思惑」

問 1　本文中の（1）～（5）の空欄に入る最も適切なものを，それぞれ①～⑤の中から一つずつ選びなさい。

（1）　① unrestricted　② underlined　③ undercovered　④ inaccessible　⑤ incomplete

（2）　① never　② perhaps　③ reliably　④ hopefully　⑤ however

（3）　① simple　② overall　③ rich　④ poor　⑤ working

（4）　① correctly　② correct　③ correction　④ incorrectly　⑤ incorrect

（5）　① dissatisfaction　② justification　③ prediction　④ celebration　⑤ misrepresentation

問 2　次の（6）～（10）の各問いの答えとして最も適切なものを，それぞれ①～④の中から一つずつ選びなさい。

（6）What does the underlined word "(6) them" mean in the context of the passage?

① surveys
② statistics
③ axes
④ services

（7）What does the underlined phrase "(7) A classic case" mean in the context of the passage?

① a happy case of statistics being used to help improve people's lives in recent years
② a classical music piece that is well regarded by musicians but not well known by the general public
③ a past calculation that helped an ancient people estimate the height of their enemy's city wall
④ a historical mistake that is used to teach people how to improve their use of data

（8）What does the underlined phrase "(8) would not have been accepted" mean in the context of the passage?

① would not have been given the jobs that they hoped for
② would not have been lent the money that they wanted
③ would not have been allowed to stay in the accommodation that they wanted
④ would not have been awarded the prizes that they hoped for

（9）What type of missing data is **NOT** mentioned in the passage?

① the number of people who recovered from diseases
② the answers to questions about services
③ the measurements of internal rocket temperatures
④ the answers to questions about political support

(10) What is the main purpose of the passage?

① To teach people basic mathematical formulae that can be used in statistical analysis and how to avoid making mistakes when doing statistical calculations.

② To teach people how to design new spacecraft using statistics and how to avoid common mistakes in rocket design.

③ To teach people about the benefits of using statistics when investing in different companies and financial institutions.

④ To teach people about problems associated with a common category of mistake when performing statistical analysis.

問 3 本文に関連した次のパラグラフの (11) ～ (14) の空欄に入る最も適切なものを，それぞれ ① ～ ④ の中から一つずつ選びなさい。ただし，各選択肢は一度しか使えません。

It is also worth mentioning that it is necessary to allow for the fact that not all values have been recorded. (　11　) (　12　) (　13　) (　14　) Imagine the estimated average age when there are many values of 9999 included in the calculation.

① For example, N/A, for “not available”.

② In this case, failure to let the computer know that 9999 represents missing values can lead to a wildly inaccurate result.

③ But sometimes numerical codes are used, such as 9999 for age.

④ It is common practice to use a special symbol to indicate that a value is missing.

［Ⅱ］ 次の英文の (15) ～ (24) の空欄に入る最も適切なものを，それぞれ ① ～ ⑩ の中から一つずつ選びなさい。ただし，各選択肢は一度しか使えません。

As AI-(　15　) images have begun (　16　) into art and photography contests over the past two (　17　), sometimes fooling judges and creating anxiety and anger (　18　) artists, the photographer Miles Astray decided it was (　19　) to turn the (　20　). In an AI category of a photography contest, Astray sneaked in an entry of a real photo of a flamingo.

"I entered this (　21　) photo into the AI category to prove that human-made content has not lost its (　22　), that Mother Nature and her human interpreters can still beat the machine, and that creativity and emotion are more than just a string of (　23　)," Astray wrote. "There were ethical concerns, of course, so I was (　24　) that the jury and the audience would find that this criticism of AI and its ethical implications outweighs the ethical implications of deceiving the viewer, which, of course, is ironic because that is what AI does."

① power	② time	③ digits	④ among	⑤ hoping
⑥ actual	⑦ creeping	⑧ tides	⑨ years	⑩ generated

出典追記：An 'unreal' flamingo image won an AI award. The only catch? It's a real photograph, CNN on June 14, 2024 by Jacqui Palumbo

［Ⅲ］ 次の会話文［A］,［B］,［C］と英文［D］を読み，下記の設問に答えなさい。

［A］ A Conversation with Cai about Vocabulary

Cai: Dinner's ready. Here you go.

Lynn: Sparrowgrass! My favorite!

Cai: Sparrow-what? Asparagus?

Lynn: Sparrowgrass. I read in a book called（ 29 ）sparrowgrass is what many English speakers called asparagus for over 200 years.

Cai: Really? Why?

Lynn: Probably because some people heard "sparrowgrass" when others were saying "asparagus". Then "sparrowgrass" became popular for a long time as many people thought "asparagus" sounded too formal.

［B］ A Conversation with Sara about Vocabulary

Sara: What's *"mikan"* in English?

Lynn: In the UK we often call them satsumas.

Sara: Satsumas? What? Why?

Lynn: I guess people in the UK used to import them from the area of Japan that used to be called Satsuma Province.

［C］ A Conversation with Amon about Vocabulary

Amon: What's "cat" in German?

Lynn: *Katz.*

Amon: Oh, I guess both words share a common origin. What's "dog" in German?

Lynn: *Hund.*

Amon: How about in French?

Lynn: *Chien.*

Amon: That's funny; "dog" doesn't sound like either of those words. Where does "dog" come from?

Lynn: I read in a book called（ 29 ）that it's a bit of a mystery. It seems to be an original creation. English speakers just started using it in the Middle Ages and it became much more common than saying "hound", the Germanic word used before then.

［D］An Extract from（　29　）

So where do all these words come from? According to the great Danish linguist Otto Jespersen, words are for the most part formed in one of four ways: by adding something to them, by taking something away from them, by making them up, and by doing nothing to them. Neat as that formula is, I would venture to suggest that it overlooks two other sources of new words: borrowing them from other languages and creating them by mistake.

問 1　次の (25) ～ (27) の各問いの答えとして最も適切なものを，それぞれ①～④の中から一つずつ選びなさい。

(25)　Which process, mentioned in ［D］, describes the creation of the word “sparrowgrass” as mentioned in conversation ［A］?

① taking something away from a word
② doing nothing to a word
③ borrowing a word from another language
④ creating a word by mistake

(26)　Which process, mentioned in ［D］, describes the use of the word “satsuma” in the UK as mentioned in conversation ［B］?

① adding something to a word
② taking something away from a word
③ making up a word
④ borrowing a word from another language

(27)　Which process, mentioned in ［D］, describes the creation of the word “dog” as mentioned in conversation ［C］?

① adding something to a word
② taking something away from a word
③ making up a word
④ borrowing a word from another language

問 2　次の (28) ～ (30) の各問いの答えとして最も適切なものを，それぞれ①～④の中から一つずつ選びなさい。

(28) Why was Cai confused by Lynn?

① Cai knew that Lynn doesn't like asparagus.

② Cai didn't know that Lynn spoke German.

③ Cai wasn't familiar with Lynn's vocabulary.

④ Cai didn't understand why Lynn was talking about birdwatching.

(29) What is most likely to be the title of the book mentioned by Lynn?

① *Mother Tongue*

② *How to Win Friends and Influence People*

③ *The Wealth of Nations*

④ *Life Without Principle*

(30) What is one piece of information that [A], [B], [C] and [D] do **NOT** tell us?

① Many technical words in English originally came from French.

② Some words may change meaning when they become part of another language.

③ There is similar vocabulary in English and German.

④ Vocabulary in the English language has changed over time.

［Ⅳ］ 次の英文を読み，下記の設問に答えなさい。

From the Introduction to *Python Crash Course*:

(31)

The goal of this book is to bring you up to speed with Python[*1] as quickly as possible so you can build programs that work—games, data visualizations, and web applications—while developing a foundation in programming that will serve you well for the rest of your life. *Python Crash Course* is written for people of any age who have never programmed in Python before or have never programmed at all. If you want to learn the basics of programming quickly so you can focus on interesting projects, and you like to (ア)( ) (34) ( ) ( ) ( ) (35) ( ) meaningful problems, this book is for you. *Python Crash Course* is also perfect for middle school and high school teachers who want to offer their students a project-based introduction to programming.

(32)

The purpose of this book is to make you a good programmer in general and a good Python programmer in particular. (イ)(36) ( ) ( ) (37) ( ) ( ) (38) you with a solid foundation in general programming concepts. After working your way through *Python Crash Course*, you should be ready to move on to more advanced Python techniques, and your next programming language will be even easier to grasp.

(33)

Every year I consider whether to continue using Python or whether to move on to a different language—perhaps one that's newer to the programming world. But I continue to focus on Python for many reasons. Python is an incredibly efficient language: your programs (ウ)( ) (39) ( ) ( ) fewer (40) ( ) code ( ) many other languages would require. Python's syntax[*2] will also help you write "clean" code. Your code will be easy to read, easy to correct, and easy to extend and build upon compared to other languages.

注：[*1]Python 「パイソン」プログラミング言語の一つ

[*2]syntax 「シンタックス」プログラミング言語で書かれたコードの文法やルール

出典追記：Python Crash Course by Eric Matthes, No Starch Press

問 1　(31) ～ (33) の空欄には，そのあとに続く英文の内容に合う見出しが入ります。各見出しとして最も適切なものを，それぞれ ① ～ ④ の中から一つずつ選びなさい。

(31)　① What Is the Conclusion?
② Who Is This Book For?
③ When Did Python Start?
④ What Are Python's Problems?

(32)　① When Should You Start Learning Python?
② What Can You Expect to Learn?
③ How Long Will It Take?
④ Who Shouldn't Use Python?

(33)　① Why Python?
② Code or AI?
③ Is Python Too Expensive?
④ Who Knows Code?

問 2　本文中の下線部 (ア) ～ (ウ) が正しい英文となるように，以下の語(句)を並べ替え，(34) ～ (40) の空欄に入る最も適切なものを，それぞれ ① ～ ⑦ の中から 一つずつ選びなさい。ただし，各選択肢は一度しか使えません。また，大文字で始まる語の書き出しも小文字となっています。

(ア)　… you like to (　　) (34) (　　) (　　) (　　) (35) (　　) meaningful problems, …

① of　② test　③ understanding　④ new concepts
⑤ your　⑥ solving　⑦ by

(イ)　(36) (　　) (　　) (37) (　　) (　　) (38) you with a solid foundation …

① learn efficiently　② you'll　③ provide　④ habits
⑤ as I　⑥ and adopt　⑦ good

(ウ)　… your programs (　　) (39) (　　) (　　) fewer (40) (　　) code (　　) many other languages would require.

① than　② in　③ lines　④ of
⑤ more　⑥ do　⑦ will

余　　白

余　　白