受験番号		氏名	

I Choose four items from the following, and explain each in about 150 words.

(1) Web search engine

(2) Feature extraction

(3) Augmented reality

(4) Cluster analysis

(5) Third normal form (3NF)

(6) Deadlock

(7) Supervised learning

(8) Collaborative filtering

II Consider a singly linked list of integers composed of nodes with the following definition in C.

```
struct node {
    int value;
    struct node *next; // If the last node, next is NULL
};
struct node *head; // head->value gives the first element
```

Suppose a function **void add(int value, int k)**, which adds the element value into the list at position k, using 0-based indexing.

For instance, suppose that the initial list is **[100, 20, -10, 0]**.

If you call **add(50,3)**; then the list becomes **[100, 20, -10, 50, 0]**.

If you next call **add(1,0)**; then the list becomes **[1, 100, 20, -10, 50, 0]**.

When you give an invalid index, the list does not change; for instance **add(100,100)** gives no effect.

(1) Write an algorithm for the **add** function in natural language (English or Japanese).

(2) Write a code for the **add** function in C programming language.

得点

2019年度 外国人留学生 大学院(修士課程)入学試験問題

(理工学研究科 情報メディア学専攻)

2018年11月24日(土)

(科目名:英語)

受験番号		氏名	

Ⅰ Translate the following passage from "*The Psychology Of Everyday Things*" by Donald A. Norman into Japanese. （以下の英文を日本語に翻訳しなさい。）

【引用部分は削除しています】

得点

受験番号		氏名	

When the examination begins, write your name and ID number on two answer sheets.

Write your solutions in a separate answer sheet per each problem having a clear point.

Problem no. 1

1) Why is increasing ocean acidification considered a very serious problem?

2) If acid levels in the ocean rise sharply during your lifetime, can you think of ways in which you might be contributing to this problem?

得点

受験番号		氏名	

When the examination begins, write your name and ID number on two answer sheets.

Write your solutions in a separate answer sheet per each problem having a clear point.

Problem no. 2

Choose <u>three items</u> from the following five and explain each item in about 200 words.

1) Red field ratio.
2) GC-MS (Gas Chromatograph Mass Spectrometer).
3) Lambert-Beer law.
4) The difference of "Radioactivity" and "Radiation dose".
5) Safety measure during investigation at waterfront as like the shore of lake side.

得点

受験番号		氏名	

I. Explain one of major current environmental issues in your country. Write down your answer in English on your answer sheet within 100 words.

II. Read the following passage (abstract of an academic paper) and answer the questions ((1)~(3)). Write down your answer in English on your answer sheet.

【引用部分は削除しています】

[Anderson *et al.* 2008 Nature 452:835–839]

(1) What is "the first hypothesis" by the authors? (15–25 words)

(2) What is the main finding of this study? (15–25 words)

(3) What is the implication of the main finding of this study for resource management? (no word limit)

得点