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大学院生命環境科学研究科8・9月期入学試験

地球環境科学専攻

外国語：英語

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注意

- \* 指示があるまで問題冊子を開いてはならない。
- \* 設問ごとにそれぞれ別の答案用紙を用いること。
- \* 設問ごとにそれぞれ1枚の答案用紙を用いること。

## 英文和訳 問題 [1]

次の英文を読んで、下の問に答えよ。

In the turbulent history of Venice, 4 November 1966 counts as one of the most notorious dates. Rain had been falling incessantly for two days, a prolonged low-pressure system had caused the sea level to rise dramatically, and a powerful wind forced wave after wave into the city's canals. By six o'clock that evening, the sea level was almost 2 m above average, and much of Venice was under water. And it could so easily have been worse — had the wind blown for just a couple more hours, parts of the city would almost certainly have been swept away. Although the events of November 1966 were extreme, flood frequency had been increasing since the start of the twentieth century, and Venetians realized that something had to be done.

In December 2001, Italian prime minister declared that the most ambitious of the engineering solutions would put into action. Known by its Italian acronym of MOSE, the scheme will incorporate 78 hollow metal gates, each about 20 m high and 5 m thick, placed at the three main inlets of the lagoon. Each gate will lie flat on the sea floor under normal circumstances, with one end fixed to its foundations. In advance of particularly strong surges — exceeding 87 cm above the current average sea level — air will be pumped into the hollow gates, displacing the water inside them and causing the unfixed end to rise. Within an hour, the lagoon should be separated from the sea.

The project has two main problems, Paolo Antonio Pirazzoli says. First, it was designed with an event similar to the 1966 flood in mind. But such a freak disaster is likely to occur no more than once every 165 years, Pirazzoli calculates. This makes MOSE a misdirected solution, he argues, as it will do nothing to combat the frequent minor floods that plague the city. "Last winter, there were more than 100 high-water events in Venice," says Pirazzoli. Many parts of the city were flooded before the water reached the 87-cm threshold, he says.

What's more, claims Pirazzoli, MOSE will not be able to cope with the sea-level rise expected as a result of global warming. The Intergovernmental Panel on Climate Change predicts that seas will rise by an average of 50 cm over the next century, but MOSE is based on the assumption that the local sea level will rise by only 22 cm over the same period.

ambitious 大がかりな acronym 略語 hollow 中空の freak 異常な plague 襲う

- (1) 第一段落を全訳せよ。
- (2) Pirazzoli 氏が指摘する MOSE の二つの問題点について要約せよ。

## 英文和訳 問題 [2]

次の英文を和訳せよ。

Geographical data come in many different forms. A basic distinction can be made between primary and secondary data.

Primary data refer to the sorts of information that can be collected first hand by fieldwork and questionnaire surveys.

Secondary data are those found in published sources, such as official statistics, maps and aerial photographs, or are gathered by some agency other than yourself.

Data are the raw materials of project work in geography. Many investigations will involve a combination of both primary and secondary data. It is important to make correct decisions about which sources of information are most appropriate. Attention should be given to such matters as availability, ease of collection and reliability.

Some official data which are collected are not accessible to the public. For example, although the Census records details about individuals in a household, such information is protected by a law of confidentiality for one hundred years, and in the meantime only grouped data are available. Sometimes no convenient secondary data source exists and so a survey has to be carried out.

## 和文英訳 問題 [1]

次の日本語を英文に訳しなさい。

地球環境の将来は、科学的にも、社会的にも、重大な関心事である。森林伐採、汚染、野生生物の減少、砂漠化、そして温室効果ガスによって引き起こされる地球温暖化、といった諸問題については、未だに様々な不確定性が残されている。何がこれらのプロセスを引き起こし、その結果どのようなことが起こるのか？例えば地球温暖化の影響は、海面水位、降水量、氷河の動態、および動植物の分布といった様々な事象や広範な人間活動に波及すると考えられている。

## 和文英訳 問題 [2]

次の日本語を英文に訳しなさい。

アレクサンダー・フォン・フンボルト (Alexander von Humboldt) は世界的に有名なドイツの科学者である。フンボルトの興味は自然地理学にあったが、彼の著作は人間も生態系の一部であるという彼の信念を示している。地理学に対する彼の主たる貢献は、因果関係への注目にある。初期のほとんどの地理学者は単に地理的な事実を蓄積しただけであった。フンボルトがある自然現象の空間的パターンを説明しようとしたとき、彼は地理学が有用であることを発見した。彼は、科学が有するこの方法論を地理学にもたらしたために、彼は近代地理学の創設者として考えられている。