

平成16年度

大学院生命環境科学研究科 2 月期入学試験

(第2次学生募集)

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]

次の英文を読み、下の問いに答えなさい。 Read the following text and answer the questions.

The massive changes in the economy and ecology of the world which are labelled as industrialization came to dominance in the nineteenth century, since when they have often been regarded as the norm, against which all else is measured: *less developed* is a comparative term of that kind. The nineteenth century was not, of course, the beginning of the processes of industrialism, for its major characteristics of steam power, the substitution of machines for human labour and the spatial aggregation of production into the factory can all be seen in earlier centuries.

Compared with the explosion of cultural diversity made possible by agriculture, industry produces relatively little of it. Factories tend not to be tuned to climate like farms and all TV sets are more or less the same. The power of steam applied to railway and ship, followed by the internal combustion engine and electric telecommunications tended to spread dominant ideas quickly and they could be followed up where necessary by armies and colonial officials whose jobs it was to make them stick. So the modernism of industrialization has in general reduced the diversity of culture in the world and with it the variety of cultural landscapes: modernized cities are much the same everywhere. The expression of non-material values continued, but the cathedrals of the nineteenth century were in praise of empire and commerce; sheer size also entered music with grandiose conceptions like Gustav Mahler's *Symphony of a Thousand*.

The cultural landscapes of industrialism, then, include those of energy getting, the power-houses of the world; those of industrial production themselves; the cities whose increased size is only made possible by the new fuels, the communications web that binds them all together, and many other new landscapes of pleasure such as the jet-packaged holiday in the sun.

(cited from Atkins et al. 1998. *People, Land and Time*. Arnold.)

- 問1 第1段落を日本語に訳せ。 Translate the first paragraph into Japanese.
問2 筆者は工業化が文化や景観にどのような影響を与えたと主張しているかを要約せよ。 Summarize (in Japanese) the author's opinion about the influence of industrialization on culture and landscape.

英文和訳 問題 [2]

次の文章を読んで、下の問に答えよ。 Answer the questions below.

US research universities, with their enormous classes, have a poor reputation for teaching science. A professor at the University of Colorado at Boulder, Richard McCray began turning his introductory astronomy course inside out three years ago. Rather than lecturing to 200-plus students at a time, McCray divides them into 'cooperative learning teams' of about a dozen people, throws problems at them over the Internet, and then uses the lecture hall to discuss their various solutions. He was deeply worried about the poor teaching performance of America's leading research universities. "We're losing talented people; we're driving students away," he says. "They don't like these large lecture courses."

Although educational institutions in many countries are struggling with similar issues, US research universities face a particularly tough problem in matching their specialist interests to the demands of society. A typical introductory science class consists of a couple of hundred students, most of whom have no plans to continue with the subject, nor a great deal of prior knowledge. But in a world that increasingly depends on science and technology, it is more important than ever that these students learn the scientific basics. And that makes McCray's bleak assessment of the teaching failure of US research universities a matter of genuine social concern.

As the number of students in each class is unlikely to fall any time soon, thinking of a way to make a 200-person course seem more student-centred tops the list of desired reforms. The solution advocated by McCray is to ask small groups of students to work on problems together. In the lecture theatre, he calls on each team to read its answer aloud so that the entire class can discuss it. In addition to these *Oprah*-style debates, McCray's classes sometimes resemble the 'ask the audience' segment of television's *Who Wants to be a Millionaire?* Class members have electronic clickers so that McCray can take a problem that has stumped many teams, turn it into a multiple-choice question, and ask everyone to vote on it. This instant feedback allows him to see if a common misconception has tripped up his students — and if so, to dispel it rapidly.

bleak 暗い Millionaire 百万長者 stump 手を焼かせる trip up 間違わせる

(Natureの記事より抜粋)

- (1) 第二段落を全訳せよ。

Translate the second paragraph into Japanese.

- (2) McCray氏が採用した授業形式について要約せよ。

Summarize (in Japanese) the lecture style adopted by McCray.

和文英訳 問題 [1]

次の日本語を英文に訳しなさい。

Translate the following paragraph into English.

大気と地表面の間の水と熱の交換過程は、地球上の気候・地形・植生などの特徴やそれらの地理的分布を規定しており、また農業生産や都市形成などの人間活動にも影響を及ぼしている。これらの現象を広範囲に、かつ長期的にモニタリングするため、衛星リモートセンシング手法の開発や地理情報システムを利用したデータベースの構築が進められている。

和文英訳 問題 [2]

次の日本語を英文に訳しなさい。

Translate the following paragraph into English.

人類は、特定の自然環境に集落をつくることを避けてきた。農業活動にとって過度に乾燥、湿潤、寒冷、山がちである地域には人々はほとんど居住していない。たとえば、地球上の高山では傾斜がきつく、雪に覆われ、居住はまばらである。実際、スイスの土地の約半分は標高 1000m 以上であるが、そこには国の総人口の 5%のみが居住しているにすぎない。しかし、ラテンアメリカとアフリカでは多くの例外がみられる。そこでは、一般的により乾燥している周囲の低地に比べ、山地が好ましい気候的や生態的な条件を有しているからである。