

2011年2月17日実施

2011年度立命館大学大学院理工学研究科  
博士課程前期課程  
入学試験問題（外国語科目）

環境都市型  
A方式・B方式

【注意事項】

1. 解答は問題番号1、2、・・・ごとに解答用紙1枚を使用すること。
2. 解答用紙には専攻名、課程、受験番号、氏名、問題番号を解答用紙すべてに記入すること。
3. 無記名答案は無効、問題用紙および解答用紙は持ち帰らないこと。
4. 解答用紙はホッチキス止めしてあるので、はずさないこと。
5. 問題用紙が事前に届けでている型の問題であるか確認し、解答すること。
6. 外国語科目試験時間  
10:00～11:30（90分）  
試験時間中の途中退室は認めない。

立命館大学大学院理工学研究科（博士課程前期課程）

[外国語] 環境都市型 A方式・B方式

1.

地球環境に関する以下の英文①～③のうち、二つを選択して和訳せよ。

(出典：Barbara Ward and Rene Dubos; Only One Earth)

① { Man inhabits two worlds. One is the natural world of plants and animals, of soils and airs and waters which preceded him by billions of years and of which he is a part. The other is the world of social institutions and artefacts he builds for himself, using his tools and engines, his science and his dreams to fashion an environment obedient to human purpose and direction.

② { The search for a better-managed human society is as old as man himself. It is rooted in the nature of human experience. Men believe they can be happy. They experience comfort, security, joyful participation, mental vigour, intellectual discovery, poetic insights, peace of soul, bodily rest. They seek to embody them in their human environment.

③ { But the actual life of most of mankind has been cramped with back-breaking labour, exposed to deadly or debilitating disease, prey to wars and famines, haunted by the loss of children, filled with fear and the ignorance that breeds more fear. At the end, for everyone, stands dreaded unknown death. To long for joy, support and comfort, to react violently against fear and anguish is quite simply the human condition.

2.

次の Photovoltaic solar energy (PV) に関する文章を全訳せよ。

(出典 : Building with Photovoltaics, W.O.J. Böttger and A.J.N. Schoen, Ten Hagen & Stam Publishers, 1995)

The primary reason for the interest in and support for PV is the prospect of having an absolutely clean, virtually inexhaustible and, in the long run, economically viable option for the future global energy supply. On an annual basis, solar radiation is distributed relatively equally across the globe. Solar cells erected in a small area of the Sahara may produce enough electricity to meet the current global electricity demand. The demand of a single country may, on average, be met by solar cells covering no more than a dot on the map of Africa. One may say that PV is a virtually inexhaustible global energy source. This is true even for such a densely populated area as north-western Europe with its humid maritime climate. The average annual radiation on a horizontal plane in north-western Europe amounts to 1,000 kWh/m<sup>2</sup>. This is about half the radiation in the Sahara. A densely populated country such as the Netherlands has a very high national energy-consumption per square kilometer; nonetheless solar radiation expressed in energy per square kilometer is about 50 times higher than the total energy consumption and even 500 times higher than the electricity consumption.